Volume II:

DRAFT DEVELOPMENT AGREEMENT (DA)

FOR

DEVELOPMENT OF NMC COMMERCIAL COMPLEX PROJECT
ON
PLOT NO. 2A OF ORANGE CITY STREET PROJECT AT NAGPUR
ON
DESIGN, BUILD, FINANCE, MAINTAIN and SALE MODE.

Project Proponent:

NAGPUR
MUNICIPAL CORPORATION

Issued by:
Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg, Nagpur.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com

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DEVELOPMENT AGREEMENT

This Development Agreement mutually agreed and entered into on this .....day of....., Two Thousand and Twenty Two at NMC, Nagpur.

BETWEEN

Nagpur Municipal Corporation, the urban local body for the city of Nagpur, duly established under and functioning as per the MMC Act, 1949 ("**Act**") through its Municipal Commissioner, having its office at Nagpur Municipal Corporation, Civil Lines, Mahanagar Palika Marg, Nagpur (hereinafter referred to as "**NMC**", which expression shall, unless excluded by or repugnant to the context or meaning thereof, mean and include its administrators, successors and assigns) OF ONE PART;

AND

_____ a company/LLP incorporated under the Companies Act, 2013/LLP Act 2008 and having its registered office at --- _____ (hereinafter referred to as "**Developer**") which expression shall where context so admits be deemed to include its successor or administrators and permitted assigns or assigns) of the OTHER PART;

NMC and the Developer are hereinafter referred to individually as the "**Party**" and collectively as the "**Parties**".

WHEREAS;

1. NMC has decided to develop the NMC Commercial Complex Project at Nagpur on the Plot No. 2A of the Orange City Street Project, starting from Wardha Road up to Jaitala, Nagpur.

2. Currently NMC proposes to develop as a component of this Orange City Street Project, a Commercial Complex with requisite parking at the NMC Plot No. 2A site at Nagpur.

3. The plot area is 3363 square metres of which the FSI permitted by the Town Planning Department is 4 as per the UDCPR 2020 and the restriction on height as approved by AAI is 42.05 metres which generally allows a building above existing ground level. The developer has to develop the project within this framework.

4. The prospective developer should plan the Project in synchronization with the conceptual idea of the entire Orange City Street Project and the elevational characters planned by NMC for

the Project should be maintained by the prospective developer to maintain the similarity for the entire Orange City Street Project.

5. The developer has to undertake its own designing & planning for the Project as per the prevalent development control rules and guidelines.

6. The building elevational characters planned by NMC for the Project should be maintained by the developer to maintain the similarity for the entire OCSP.

7. The characteristics of the Elevational Drawings as per the Developers planning should be commensurate with the Elevational Drawings provided in the Volume III of the bidding documents.

8. NMC now desires to undertake the project on Design-Build-Finance-Maintain and Sale (DBFMS) basis under which the Developer shall propose its own Designs, Finance, Construct, Maintain and undertake Marketing & Sale of the various components of the project.

9. NMC has carried out a competitive bidding process for the selection of a suitable developer to implement the Project (defined hereinafter), and issued a Request for Proposal ("**RFP**") dated [•] inviting proposals from the interested developers. Upon evaluation of the proposals received, NMC accepted the proposal of the Successful Bidder and issued Letter of Award ("LOA") No.[•] dated_____to the Successful Bidder and invited it to *interalia* execute this Development Agreement for implementation of the Project in accordance herewith.

10. NMC and the Developer are executing this Development Agreement to award to the Developer the development and sales rights including right and obligation with regards to designing, planning, financing, construction, operations and maintenance, marketing and sales of the various components of the Commercial Complex and requisite parking of the Project and the Developer has agreed to enter into this Development Agreement for execution of the Project on DBFMS basis subject to and on the terms, conditions and covenants set forth hereinafter.

NOW THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Development Agreement, the sufficiency and adequacy of which is hereby acknowledged, and intending to be legally bound thereby, the Parties agree as follows:

Article 1. DEFINITIONS & INTERPRETATIONS

In this Agreement, unless the context or meaning otherwise requires, the following words or expressions used in the Agreement (including the recitals) shall have the meaning as ascribed hereunder:

1.1 Definitions

1. **Affected Party** shall mean the Party claiming to be affected by a Force Majeure Event in accordance with Article 12.1.

2. **Agreement / Development Agreement s**hall mean this Development Agreement, its Recitals, and the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement.

3. **Applicable Laws** shall mean all laws brought in force by the Government of India or the Government of Maharashtra including the constitution of India, any law, orders, rules, regulations, byelaws, statutory orders, executive orders, decrees, judicial decisions, notification, or other similar directives made pursuant thereto, injunctions, writs and orders of any Court or legally binding instructions, policies, guidelines, codes, or standards (including environmental standards) issued by the executive, legislative, judicial or administrative entity, in India or any of the above as amended from time to time, including currency restrictions, any form of delegated legislation, a treaty and a directive or regulation made by virtue of powers conferred by the international treaty, which are applicable to this Agreement and to the Parties and as may be in force and effect during subsistence of this Agreement.

4. **Applicable Permits** shall mean all clearances, licenses, permits, authorizations, consents, no objection certificates and approvals under or pursuant to the Laws, required to be obtained and maintained by the Developer in connection with the construction, operation & maintenance and sales of the Project during the subsistence of this Development Agreement.

5. **Approval** shall mean the approval given in writing by NMC or any other competent authority required from time to time for implementation of the Project including for undertaking construction and sales.



6. **"Arbitration Act"** means the Arbitration and Conciliation (Amendment) Act, 2019 as amended from time to time and shall include modifications to or any re-enactment thereof as in force from time to time;

7. "**Associate**" **or** "**Affiliate**" shall mean, in relation to either Party {and/or Consortium Members}, a person who controls, is controlled by, or is under the common control with such Party {or Consortium Member} (as used in this definition, the expression "**control**" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person or the power to direct the management and policies of such person by operation of law, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise);

8. "**Bank**" shall mean any bank from the list of Scheduled Banks approved by NMC;

9. **Bid** means the documents in their entirety comprised in the bid submitted by the Selected Bidder in response to the Request for Proposals and any other clarifications/amendments/corrigenda submitted by the bidder in accordance with the provisions thereof.

10. **Bid Security** means the security provided by the Bidder to NMC along with the Bid, in accordance with the Request for Proposal, and which is to remain in force until substituted by the Performance Security.

11. "**Capital Expenditure**" shall mean all capital expenditure incurred by the Developer in connection with the Project.

12. **Change in Law** shall have the meaning assigned to it in Article 17.

13. **Commencement Date** shall mean the date on which every Condition Precedent is either satisfied or waived, as the case may be, in accordance with the provisions of this Agreement, and such date shall be the date of commencement of the Development and Sales Period including the construction period.

14. **Commencement Order/Letter** shall mean the commencement letter issued by NMC upon approval of construction plan consistent with the Detailed Project Report.

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15. **Completion Certificate for Construction Works** shall mean the certificate issued by the Independent Engineer/Monitoring Agency to the Developer on the completion of Construction Works of the Project as per the construction plan and approved DPR. This shall be issued on completion of the project in entirety within construction period of 30 months and on Independent Engineer completing all the necessary tests to certify the completion of the Project Facilities. Completion as per RERA Act shall also be the responsibility of the Developer.

16. **Completion Certificate for completion of Project** shall mean the Completion Certificate to be issued by NMC to the Developer indicating the completion of the contract i.e. Sales of all the constructed Project Components and payment of the 100% NMC Revenue Share.

17. **Conditions Precedent** shall have the meaning ascribed to it in Article 2.

18. **Commercial Development** shall mean the development which shall include but shall not be limited to all the amenities and facilities including:

    a. Hypermarkets & Anchor Shops
    b. Showrooms & Shops
    c. Commercial Offices & Conference Hall
    d. Multiplex/Miniplex
    e. Hotels/Restaurants
    f. Requisite Parking
    g. Such Commercial facilities shall conform to the NMC Town Planning Department approved drawings for the Project Site. The facilities shall be developed as per the Detailed Project Report to be submitted by the Developer and to be approved by NMC. The enforceability of the DPR shall be in accordance of the UDCPR 2020.
    h. Such Commercial Facility shall adhere to the RERA and Green building norms at all times.



19. **Commercial Operation Date (COD)** shall mean as completion of project at such stage at which occupancy certificate for whole or part of the occupiable components of building are completed and occupancy certificate of the same is issued by the competent authority.

    a. When Occupancy Certificate is issued only for a part of the Project, then it shall be construed only as Provisional COD.

    b. Complete COD shall be considered by NMC only when all the components of the Project are completed as per the GFC Drawings and the same are approved by the Independent Engineer and the Occupancy Certificate for the complete Project is issued.

    c. The date on which the first occupant occupies any of the project components shall be referred to as the "COD or Commercial Operation Date" of the Project.

20. **Completion Notice:** Upon the completion of the design, development, construction and other activities, but prior to seeking completion certificate from Authority, in relation to the Project, in accordance with the terms of this Agreement, as may be required to bring the Project into commercial operation, the Developer shall intimate Independent Engineer in writing, together with all Applicable Permits required for the purposes of commencement of commercial operations ("Completion Notice"). Independent Engineer shall, within 15 (fifteen) Business Days of the receipt of the Completion Notice, inspect the Project to ascertain its compliance

21. **Construction Period** means the period beginning from the date of issuance of the Commencement Order and ending on the Completion Certificate for Construction Works;

22. **Construction Works** shall mean all works and things required to be constructed by the Developer, pursuant to approved construction plan and DPR.

23. **Cure Period** shall have the meaning ascribed to it in Clause 13.1:

24. **Damages** shall have the meaning set forth in Clause 2.3 and 2.4.

25. **Developer** shall mean the Successful Bidder who has signed this Development Agreement with NMC and defined as such in the array of Parties in the Recitals to this Agreement.

26. **Development and Sales Rights** shall mean the right to design and engineer, procure, finance, construct, install, commission, operate & maintain the Project Facilities till complete sales and market & undertake sales from the Project and to exercise and enjoy the rights, power, authorization and entitlements as set forth in this Agreement and to transfer the Project Facilities to NMC on Termination, in accordance with the provisions of this Agreement.

27. **Development and Sales Period** shall mean the period of 84 (Eighty Four) months inclusive of the construction period of 30 (Thirty) months commencing from the Commencement Date, during which the Developer shall Design, Build, Finance, Operate & Maintain and sell the various components of the Project. The Development Agreement shall be valid during the Development and Sales Period if not terminated earlier.

28. **Dispute shall** mean any dispute, difference or controversy of whatsoever nature, howsoever arising, under or out of or in relation to this Agreement (including its interpretation) including the validity, breach or termination thereof and so notified by one Party to the other Party.

29. **Dispute Resolution Procedure** shall mean the procedure for resolution of Dispute between the Parties set forth in Article18.

30. **Detailed Project Report (DPR)** shall mean the report to be prepared by the Developer and duly approved by NMC containing the detailed master plan, project plan, architecture plan, engineering plans, project construction plan and sales plan for various components of the project including the time-lines for achievement of construction and sales milestones and the Operation and Maintenance plan till completion of the sales of the various components of the project. This report shall be inclusive, but not shall be limited to, the appreciation of individual Project Facilities connectivity, market study, area statement, land use pattern development mix, phase wise construction milestone, infrastructure development, economic and financial analysis, environmental and social impact assessment and the detailed technical drawings of the Project Site prepared by the Developer and approved by NMC.
The enforceability of the DPR shall be in accordance of the UDCPR 2020.

31. **Development Control Regulation (DCR)** shall mean the Unified Development Control and Promotion Regulations 2020 and it's up-dations from time to time, State Government Gazette Notifications and any other documents affecting the Project. The UDCPR which is in force on the date of submission of the proposals shall be the base UDCPR and further up-dations in the same shall be considered.

32. **"Document" or "Documentation"** means documentation printed or in written form, tapes, discs, drawings, computer programmes, writings, reports, photographs, cassettes, or expressed in any other written, audio or visual form;

33. **"Effective Date"** shall mean the date on which this Development Agreement has been executed by the Parties

34. "**Emergency**" means a condition or situation that is likely to endanger the security of the individuals on or about the Project including users thereof or which poses an immediate threat of material damage to the Project or part thereof;

35. **Encumbrance** means, in relation to the Project Site, any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligation where applicable herein but excluding utilities.

36. "**Equity" means** the sum expressed in Indian Rupees representing the equity share capital of the Developer and shall include the funds advanced by any member of the Consortium or by any of its shareholders to the Developer for meeting the equity component of the Total Project Cost.

37. **Event of Default** shall have the meaning ascribed in Article 13.

38. **"Facility"** shall mean the new commercial complex and common areas to be designed, financed, constructed, and developed by the Developer at the Project Site as per the terms and conditions of this Agreement.

39. **Financial Close** means the fulfilment of all conditions precedent to the initial availability of funds under the Financing Documents as specified in Clause 10.6.1.

40. **Financial Model** means the financial model adopted by Lenders, setting forth the capital and operating costs of the Project and revenues thereof on the basis of which financial viability of the Project has been determined by the Lenders, and includes a description of the assumptions and parameters used for making calculations and projections therein.

41. **Financial Package** means the financing package indicating the total capital cost of the Project and the means of financing thereof, as set forth in the Financial Model and approved by the Lenders, and includes Equity, all financial assistance specified in the Financing Agreements, and Equity support, if any.

42. **Financing Document** shall mean any agreement, note, bond, indenture, credit agreement, debt repayment or refinancing instrument, reimbursement agreement, mortgage, security agreement, guarantee, registration statement, disclosure statement, subordination agreement, partnership agreement, participation agreement or other financing document, including any modification, extensions, renewals or replacement, relating to the interim or long term financing (or any refinancing)of the Total Project Cost of the Project which are to be executed between Developer and the Lenders or other relevant parties thereto, without creating any right or interest on project land and assets in favor of any third party or lender or financer or financial institution (private or government).

43. **Financial Year** shall mean the period commencing from April 1st of any given year to March 31st of the immediately succeeding year. It is clarified that first accounting year shall be the period commencing from the COD and ending on the 31st (thirty-first) day of March of the next calendar year.

44. **Force Majeure** shall have the meaning specified in Article 12.

45. **"Good Industry Practice"** means those practices, methods, techniques, standards, skills, diligence and prudence which are generally and reasonably expected of and accepted internationally from a reasonably skilled and experienced person(s) engaged in the same type of undertaking as envisaged under this Agreement and acting generally in accordance with the provisions of the Applicable Laws, and would mean good engineering practices in the design, engineering, procurement, construction and project management and which would be expected to result in the performance of its obligations by the Developer in accordance with this Agreement,

Applicable Laws, Applicable Permits, reliability, safety, environment protection, economy and efficiency;

46. **Government Agency** shall mean the Government of India or Government of Maharashtra or NMC, department, commission, board, body, bureau, agency authority, instrumentally, court or other judicial or administrative body, central, state or local, having jurisdiction over the Developer, NMC, the Project Facility or any portion thereof, or the performance of all or any of the services or obligations of NMC and the Developer under or pursuant to this Agreement.

47. **Insurance Cover** shall mean the aggregate of the maximum sums insured under the insurance taken out by the Developer pursuant to Article 6.4.3.

48. **Lenders** means financial institutions, banks, funds or trusts, who provide or refinance the debt component of the cost of the Project (including guarantees, letters of credit, risk participation facility, take-out facility and other forms of credit enhancement) and includes subscribers to / trustee for the holders of debentures /bonds or other securities issued by the Developer to meet the Total Project Cost of the Project.

49. **Letter of Award** shall mean the letter issued by NMC signifying its acceptance to the proposal submitted by the Successful Bidder.

50. **Material Adverse Effect** shall mean material adverse effect on:

The ability of any Party to observe and perform any of its rights and obligations under and in accordance with the provision of this Development Agreement

51. **Material Breach** shall mean a breach by either Party of any of its obligations under this Agreement which is likely to have a Material Adverse Effect on the Project and which such Party shall have failed to remedy.

52. **NMC** shall mean the Nagpur Municipal Corporation, Nagpur.

53. **Upfront Premium** shall mean the upfront payment payable to NMC. The payable amount shall be Rs 5.00 Crores (Rupees Five Crores) as per Clause 7.1.1 of the RFP and the Financial Offer submitted.

54. **Operation and Maintenance** shall mean the operation and maintenance, rectification and remedy of defects of the Project Facilities as per the O&M Requirements and approved DPR and Drawings & Designs during the Development and Sales period.

55. **O&M Requirements** shall mean the requirements for the operation and maintenance of the Project Facilities;

56. **O&M Contract** means the Operation and Maintenance Contract that may be entered into between NMC, the Developer and the O&M contractor for O&M of the Facility;

57. **O&M Contractor** means the person or entity which is a facility management company and appointed with the approval of NMC to undertake the operation and maintenance of the Facility;

58. **Occupancy Certificate** shall mean a certificate issued by any competent authority including NMC to the Developer, declaring the Project Facility to be operational and includes Part Occupancy Certificate;

59. **Performance Security** shall have the meaning as specified in Article 10.1.

60. **Person** shall mean a natural person, corporation, limited or general partnership, Limited Liability Company, tenancy-in-common, joint venture, association, business trust, and any other organization and any combination of them.

61. **Project** shall mean the project for development of the Commercial Complex Facility through DBFMS on the NMC land at Plot No. 2A of the Orange City Street Project and for that purpose to design, finance, construction, operations & maintenance, marketing and sales of the Project Facilities to be developed on the Project Site. The Project Facilities shall be constructed in accordance with the Detailed Project Report ("**DPR**") to be approved by NMC and the provisions of this Development Agreement and the Conceptual Design Proposal.

62. **Project Agreements** means this Development Agreement, the Financing Document, EPC Contract, O&M Contract, Escrow Agreement and any other agreements or material contracts that may be entered into by the Developer with any person in connection

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with matters relating to, arising out of or incidental to the Project, but does not include the Substitution Agreement, if any.

63. **Project Assets** means all physical and other assets relating to and forming part of the Project Site including (a) rights over the Site in the form of Lease rights, Right of Way or otherwise; (b) tangible assets such as civil works and equipment including foundations, pavements, fountains, irrigation system, pumping systems, structures, works, electrical systems, communication systems and administrative offices; (c) Project Facilities situated on the Project Site; (d) all rights of the Developer under the Project Agreements; (e) financial assets, such as receivables, security deposits etc.; (f) insurance proceeds; and (g) Applicable Permits and authorisations relating to or in respect of the Project.

64. **Project Completion Schedule** means the progressive schedule of construction for completion of the Project on or before the Scheduled Project Completion Date.

65. **Project Facility / Facilities** shall consist of facilities constructed on the Project Site as a Commercial Complex Facility as per the approved Detailed Project Report and Drawings & Designs in accordance with the provision mentioned in this Agreement.

66. **Property Tax** shall mean the tax to be charged and paid as per the provisions of the MMC Act 1949.

67. **Independent Engineer Contract** shall mean the contract between NMC and the Independent Engineer appointed by NMC who shall be monitoring agency of NMC for the activities of the Developer and its PMC, if any & shall be the Independent Engineer for this Project.

68. **Project Site shall mean the i**dentified piece of land at Plot No 2A of the NMC Orange City Street Project, Khamla Road measuring 3366 square meters more particularly described in **Schedule 1**.

69. **Ready Reckoner Rate** shall mean the minimum rate decided and notified from time to time by the Maharashtra State Government for sale/purchase of immovable property within Maharashtra state.

70. **RFP** shall mean the Request for Proposal dated [•] issued by the NMC.

71. **Right of Way** shall mean the physical possession of the Project Site, together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for construction, operation and maintenance of the Project in accordance with this Agreement.

72. **Rupees or Rs.** refers to the lawful currency of the Republic of India.

73. **Safety Requirements** shall mean such requirements to be followed by the Developer during the Development and Sales Period as set out in Schedule 6;

74. **Scheduled Project Completion Date** shall mean a period of 30 months from the Commencement Date for completion of the Construction Works.

75. **Senior Lender(s)** shall mean the banks or financial institutions, including its successors and assignees who have agreed to finance any part of the Total Project Cost and who shall hold paripass charge on the assets, rights, title and interest of the Developer;

76. **Specifications and Standards"** means the specifications and standards relating to the quality, quantity, capacity and other requirements of the Facility as set forth in Schedule 5 and shall include any modifications thereof, or additions thereto, as included in the design and engineering of the Facility as approved by NMC;

77. **Successful Bidder** shall mean the Bidder who has been issued the Letter of Award pursuant to the RFP Process and invited by NMC to sign the Development Agreement.

78. **Sub-Contractors/Suppliers/Vendors** shall mean the construction contractor(s) and/or operation and maintenance contractor(s) and/or any other contractors and sub-contractors, manufacturers or suppliers or vendors of the Project and/or building/ services or part thereof, as the context may require, to whom the Developer contracts or subcontracts the respective assignment in full or part;

79. **Tax (es)** shall mean and include all Indian taxes, fees, cess, levies that may be payable by the Developer under the Applicable Laws including goods & services tax (GST Act 2016) and all its latest amendments, excise duties, customs duties, value added tax, sales tax, local taxes, cess and any impost or surcharge of like nature (whether Central, State or local) on the goods, materials, equipment

and services incorporated in and forming part of the Project charged, levied or imposed by any Government Agency, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include taxes on corporate income.

80. **Technical Proposal** shall mean the business plan and the approach and methodology for implementing the Project submitted at the proposal stage by the Developer and on the basis of which the Detailed Project Report shall be prepared.

81. **Technical Information** shall mean all technical data, know-how, methodologies, techniques, industrial information, trade secrets, confidential information, drawing (including design and engineering drawing and plans), technical reports, operating and testing procedures, instruction and operating manuals, and production and development specifications, the result and records of research and development and the result of consulting work, in whatever medium they may be composed which relate to the Project.

82. **Termination** shall mean termination of this Agreement pursuant to a Termination Notice or otherwise upon expiry in accordance with the provisions with this Agreement.

83. **Termination Notice** shall mean a communication in writing by a Party to the other Party regarding Termination in accordance with Article 14.2 of this Agreement.

84. **Termination Date** shall mean a date specified in the Termination Notice as the date on which Termination occurs or /comes into effect.

85. **"Total Project Cost"** shall mean the lowest of the following:

a. Actual capital cost incurred for the completion of the Project and as certified by the auditors of repute; or

b. Total cost of the Project as set forth in Financing Documents.

Provided that any decision with respect to the actual project cost shall be a final decision of the NMC.

Provided further that if any part of the total cost of the project cost is funded in foreign currency, in accordance with the Financing Documents, then the rate of exchange shall be determined as on the

date of Bid, and the Total Project Cost shall be computed as if such foreign currency were converted with reference to such exchange rate. In the event of Termination of this Agreement requiring NMC to make Termination Payments, the liability of NMC shall be determined on basis of the rate of exchange prevailing on the date of Termination Notice or on the date of the Bid, whichever is lower, and the amounts payable by NMC with respect to amount due by the Developer towards the debt and subordinated debt under the Financing Documents, as the case may be.

86. **Transfer Date** means the date on which this Agreement and the Development and Sales Rights hereunder is terminated by a Termination Notice or upon transfer of the unsold components of the Project to NMC or by efflux of time, whichever is earlier.



1.2 Interpretations

In this Agreement, unless the context otherwise require:

a. Any reference to a statutory provision shall include such provision as is from time to time modified or amended or re-enacted or consolidated so far as such modification or re-enactment or consolidation applies to, or is capable of being applied to any transaction entered into hereunder;

b. References to Applicable Laws shall include the laws, acts, rules, regulations, guidelines or byelaws, which have the force of law in the Union of Indiafrom time to time as may be amended, modified, supplemented, extended or re-enacted.

c. The words importing singular shall include plural and vice versa;

d. The headings are for the convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement.

e. Term and words beginning with capital letters and defined in this Agreement including the Schedules shall be construed accordingly;

f. The words "include" shall be constructed without limitation;

g. Any reference to day shall mean a reference to a calendar day;

h. Any reference to week shall mean a period of time between the same day in successive calendar weeks as may be applicable to the context.

i. Any reference to month shall mean a period of time between the same dates in successive calendar months as may be applicable to the context.

j. Any reference to year shall mean a period of time between the same dates of the same Calendar month in successive calendar years as may be applicable to the context.

k. The schedules to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement.

l. Any reference at any time to any agreement, deed, instrument, or document of any description shall be construed as reference to that agreement, deed, instrument, license, or other document as amended, varied, supplemented, modified or suspended at the time of such reference;

m. Reference to recitals, articles, sub-articles, clauses, or schedules in this Agreement shall, except where the context otherwise requires, be deemed to be references to recitals, articles sub-articles, clauses and schedules of or to this Agreement;

n. Any agreement, consent approval, authorization, notice, communication, information or report required under or pursuant to this Agreement from or by any Party shall be valid and effective only if it is in writing under the hands of duly authorized representative of such Party as the case may be, in this behalf and not otherwise;

o. Time shall be of the essence in the performance of the Parties' respective obligations. If any time period specified herein is extended, such extended time shall also be of the essence.

p. Any reference to any period commencing "from" a specified day or date and "till "or "until" a specified day or date shall include both such days or dates;

q. The damages payable by either Party to the other of them, as set forth in this Agreement, whether on per deem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the "**Damages**");

r. In case ambiguities or discrepancies within this Agreement, the following shall apply:

i. Between two Articles of this Agreement, the provisions of specific articles relevant to the issue under consideration shall prevail over those in other articles;

ii. Between the Articles and Schedules, the Articles shall prevail;

s. This Agreement, and all other Agreements and documents forming part of this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof shall, in the event of any conflict between them, be in the following order:

i. This Development Agreement;
ii. RFP Document & all its volumes along with the Corrigenda & Addenda issued.
iii. All other agreements and documents forming part hereof;

i.e. the agreement at (i) above shall prevail over the agreements and documents at (ii) and (iii) above and (ii) shall prevail over all documents in (iii) above.

t. In case of ambiguities or discrepancies within this Agreement, the following shall apply:

i. Between two or more Clauses of this Agreement, the decision of the Commissioner, NMC shall prevail and shall be final and binding on the parties.

ii. Between the Clauses of this agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;

iii. Between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;

iv. Between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and

v. Between any value written in numerals and that in words, the latter shall prevail.

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Article 2. Conditions Precedent to the Agreement

2.1 Conditions Precedent

The respective rights and obligations of the Parties under this Agreement shall be subject to the satisfaction in full of the conditions precedent specified in this Article 2 (the "**Conditions Precedent**").

2.2 A. Conditions Precedent to be fulfilled by the Developer/ Selected Bidder prior to signing of the Development Agreement:

The Selected Bidder shall be required to satisfy the following conditions that may be prescribed under the Letter of Award:

i. Sign and return a duplicate copy of Letter of Award to NMC within 7 days

ii. Submit the Performance Security within 30 days of Letter of Award,

iii. Execute the Development Agreement with the NMC within 07 days of submission of Performance Security,

iv. Make the payment of the necessary Stamp Duty on signing of Development Agreement.

v. Sign the Integrity Pact.

vi. Submit to NMC, the certified true copy of its constitution documents and a legal opinion from the legal counsel of the selected Bidder with respect to the capacity and authority of the selected Bidder's to enter into the Development Agreement and the enforceability of the provisions thereof;

vii. Delivered to the Authority a confirmation from the Selected Bidder / each of the Consortium members, in original, of the correctness of their Representations and Warranties set forth in this Development Agreement,



viii. The Selected Bidder shall submit a copy of the detailed funding plan for completion of the Project, which shall include the equity and debt contribution by the consortium partners in the Developer entity.

Provided that upon a request in writing by the Developer, NMC may, in its sole discretion, waive any of the Conditions Precedent set forth hereinabove. For the avoidance of doubt, the NMC may, in its sole discretion, grant any waiver hereunder with such conditions as it may deem fit.

2.2 B. Conditions Precedent to be fulfilled by the Developer before Commencement Date:

i. Disburse the Upfront Premium to NMC in the following manner:

- Rs 2 Crores within 30 days of the Effective Date.

2.2 C Conditions Precedent for NMC:

i. NMC shall within 30 days from the Effective Date handover to the Developer encumbrance-free, peaceful, vacant and physical possession of the Project Site;

ii. Handover of site shall be done by NMC only on receipt of the Upfront Premium. If the Upfront Premium is paid by way of cheque, then the Handover shall be done by NMC within a period of the 7 days on the clearance of the cheque.

iii. Permit the Developer to the Project Site along with right to use all Easementary Rights, in accordance with the terms and conditions of this Agreement, provided that the Developer shall have prior to entering the site given a bank guarantee to the Authority as Performance Security in accordance with the terms hereof;

iv. Appoint an Independent Engineer as per the provisions of this Agreement.

v. Provided that upon a request in writing by NMC, the Developer may waive any of the Condition Precedent set forth herein above.

Upon satisfaction in full of all Conditions Precedent for a Party, the other Party shall forthwith issue to such Party a certificate of compliance with Conditions Precedent **(the "Certificate of Compliance").**

2.3 Liquidated Damages for Delay by NMC

a. In the event that (i) NMC does not procure fulfillment of he Conditions Precedent set forth in the Article 2 Clause 2.2 C i within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by the Developer or due to Force Majeure, then the days equivalent to the number of days of delay by NMC shall be added to the Development and Sales period subject to a maximum of 90 days without damages to any party.

b. Beyond the delay of 90 days, the Developer is free to continue in the Project without receiving any financial compensation from NMC except for the extension of the Development and Sales period.

c. Expenses incurred by the Developer such as the cost for any surveys, cost for preparation of Drawings, cost for preparation of the Detailed Project Report and any other expenses shall not be compensated by NMC in case of exit by Developer. In case of exit by the Developer, the Upfront Premium and Performance Bank Guarantee shall be refunded without any interest thereon and this shall be treated as full and final settlement by the parties.

2.4 Liquidated Damages for Delay by Developer

a. For non-fulfilment of Condition Precedent as per Clause 2.2 A "ii" within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by NMC or due to Force Majeure, the Developer shall pay to NMC Damages equivalent to an amount calculated at the rate of Rs 50,000 for each day's delay for a maximum of 30 days and for delay beyond 30 days, the Bid Security would be forfeited.

b. For non-fulfilment of Condition Precedent as per Clause 2.2 B "i" within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by NMC or due to Force Majeure, the Developer shall pay to NMC Damages equivalent to an amount calculated at the rate of Rs 20,000 for each day's delay for a maximum of 60 days. On any delay of payment of the Upfront Premium, NMC shall encash the Performance Security

Bank Guarantee for the amount of Upfront Premium i.e. Rs 2 Crores plus the applicable Liquidated Damages as mentioned in this clause. Whenever such encashment is done by NMC, the Developer shall replenish the Bank Guarantee within a period of 7 (seven) days.

c. On continuation of delay even after payment of the penalty, NMC shall have the right to proceed with termination proceedings as spelt out in this Agreement.

2.5 Non Fulfilment of Conditions Precedent

a. In the event of failure by any Party to procure compliance with any of the Conditions Precedent as per the provisions of this Article 2 and the other Party have not waived any of the conditions (partially or absolutely), the Development Agreement shall cease to have any effect as of that date.

b. In the event of the Agreement not coming into effect on account of the NMC not fulfilling any of its Conditions Precedent then the Bid Security, the Performance Security and the Upfront Premium, as the case may be, shall be returned without any interest on it to the Developer.

c. Notwithstanding anything contained in this clause, the Parties may mutually decide to extend the time period for the fulfillment of the Conditions Precedent.

d. Provided that the liquidated damages shall not be payable by the Defaulting Party where such delay in the fulfillment of the Conditions Precedent is a result of breach of this Agreement by the other Party or due to Force Majeure. Further provided that where the non-compliance of Conditions Precedent by the defaulting party continues after payment of such liquidated damages, the non-defaulting party shall terminate this Development Agreement forthwith.

The Parties shall notify each other in writing at least once a month on the progress made in satisfying the Conditions Precedent. Each Party shall promptly inform the other Party when any Condition Precedent for which it is responsible has been satisfied.

Article 3. KEY FEATURES OF THE PROJECT AND THE PROJECT SITE

3.1 Key Features of the Project

a. The Developer shall construct the Commercial Complex on Plot No 2A of OCSP on a total plot area of 3363 square meters within a period of 30 (Thirty) months.

b. The Developer shall have the development and sales rights on the Project for a period of 84 (eighty four) months including the construction period of 30 (thirty) months from the date of signing of the Development Agreement. For any extension of time beyond the stipulated 84 months, the decision shall be solely with NMC and the decision of NMC in this regard shall be final and binding without incurring any cost or liabilities on NMC.

c. In the event that completion of Project construction does not occur on or before a period of Thirty Months from the Commencement Date for any reasons attributable to Developer, NMC may allow a grace period of maximum 60 days.
After completion of this grace period of 60 days, the matter shall be presented to the Empowered Committee of NMC and the decision regarding continuation/termination/payment of penalty by the Developer for such delay, shall be taken by the Empowered Committee after evaluating the reason/s for such delay.

d. Commencement Date shall be the date of the Commencement Order issued by NMC. The Commencement Order shall be issued within one month from the Effective Date subject to terms of this Draft Development Agreement.

e. The construction cost as estimated by NMC and its PMC is approx. Rs. 64 Crores (Rupees Sixty Four Crores). The Project Cost is inclusive of lifts and all other peripheral development in and within the proposed land parcel. The Project Cost is only indicative as determined by NMC. The Project Cost to be adopted shall be as per the Financing Agreements and approved DPR. The enforceability of the DPR shall be in accordance of the UDCPR 2020. The Developer shall submit the Detailed Project Report within 75 days of Effective Date based on the in-principal approval to the drawings from ADTP.

f. Post signing of the Development Agreement with NMC and on issue of Commencement Order from NMC, the Developer can market the project and undertake the Sales of the various components of the said Project.

g. The ownership of the project land shall vest with NMC till 100% realization of the NMC Revenue Share from sales consideration from the constructed project.

h. The buyer of the property in the proposed development shall be entitled to an undivided share of the Project land in proportion to the area of the Project component purchased by it and this would be incorporated in the Sale Deed/ Deed of Apartment or any such ownership document that is permitted as per law will be registered by NMC in the name of the buyer through the Developer. The Developer shall act as a facilitator to register the document with Registrar on behalf of NMC. However the undivided share is subjected to the change/modification till the completion of the entire Project is declared by NMC.

i. The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement.

j. The Sale Agreement with prospective buyers shall be a tripartite agreement with NMC, Developer and the buyer as the three parties. NMC shall nominate its authorized signatory for the purpose of registration of the tri-party agreement immediately on intimation by the Developer.

k. Ownership document to be signed by NMC with the prospective buyers can be a Sale Deed or Deed of Apartment or any other legal document which transfers the ownership of the project component to the buyer and all such documents as recognised by the prevailing law and depending on the legal implications of the same at the time of execution.

l. The Developer can facilitate for signing of either Sale Deed or Deed of Apartment depending on its profitability but at no time shall such signing is against any prevailing law and NMC shall bear no liability in this regard.

m. The Developer should be able to generate revenues, based on its independent risk analysis, from the commercial sale of the

various components of the Commercial Complex in compliance with the applicable law.

n. The Developer would have the flexibility to develop and sell the various components of the Commercial Complex after necessary approval from NMC.

o. In case the Developer intends to lease out the facility/any portion of it to any third party, then the Developer shall need to purchase and get such portion of the facility registered in its own name by appropriate lawful mechanism before leasing out the given space. Deed of Apartment and/or any such legal document can be executed by the Developer in its own favour after payment of requisite NMC Revenue Share from such sales as if it has been sold at commercial rates.

p. The Developer cannot mortgage the Project land under any circumstances. The Project land shall be in the name of NMC till 100% payment of the NMC Revenue Share by the Developer and till the Project development is completed in all respects.

q. The Development Charges during the sanctioning of the Building Plan payable to Town Planning Department shall not be applicable for the project, this being a NMC project.

3.2 Handover of Project Site

a. NMC shall within 30 days from the Effective Date, handover to the Developer the peaceful, vacant and physical possession of the Project Site, for the purpose of implementation of the Project.

b. The Handover shall be initiated only when the Developer shall pay the first instalment of the Upfront Premium. If the Upfront Premium is paid by way of cheque, then the Handover shall be done by NMC within a period of the 7 days only on the clearance of the cheque.

c. The land constituting the Site shall be handed over to the Developer under this Development Right, for the sole purposes of performance, execution and implementation of the Project.

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d. The Developer shall have executed and delivered to the Authority within 07 days from the Handover Date the letter acknowledging handover of the of Project Site in the format set out in Schedule 3

e. Upon the Project Site being handed over pursuant to the preceding sub-article (a), the Developer shall, subject to the provision of Article 4, have the right to enter upon, occupy and use the same and to make at its cost, charges and expenses such investigations, construction, development and improvements in the Project Site as may be necessary or appropriate to implement to the Project in accordance with the provision of this Agreement.

f. The Developer shall ensure optimum utilization of the Site and land available and shall not use the same for any purpose unconnected or which is not incidental to the Project or related activities.

3.2 Rights, Title and Use of Project Site

a. Upon the Developer being issued the Letter of Award and subject to fulfilling the conditions of this Development Agreement, it shall have the right to enter upon the Site, occupy and use the same and to make at its cost, charges and expenses such investigations, construction, development and improvements in the Project Site as may be necessary or appropriate to implement to the Project.

b. The Developer shall have the right to use of the Project Site in accordance with the provisions of this Agreement and for this purpose, it may regulate the entry into and use of the same by third parties. It is clarified that NMC has granted to the Developer, the development and sales rights in respect of the Project Site for the purpose of construction, operations &maintenance prior to sales and sales of the Project Facilities i.e. A Commercial Complex Facility.

c. The Developer shall be permitted to enter upon the Project Site for the purpose of design, develop, construct, operate and maintain and Sales of the components of the Project Facilities. The right assigned to the Developer with respect to the Project Site is purely on right to use basis, i.e. Developer is not allowed to further sublease or sub-let the project land to any third party or create any third party interest on the Project landsite, save as otherwise stated in this Agreement. This clause, however, shall not limit the Developer's right for development of the Project Facilities on the Site.

d. The Developer shall be authorized to carry out activities at the Project Site in accordance with the provisions of this Agreement and will be authorized to collect sales revenue generated from

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development and sales of such developed commercial facilities as part of the Project through third parties subject to necessary certificate being given by NMC and the completion certificate issued by NMC on the recommendation of its Independent Engineer/Monitoring Agency.

e. The Developer shall have the rights, as it may deem fit, to collect from the property and from such persons entering and using the property and the Project Facilities, Fees, usage charges, maintenance charges and any other similar charges during the Development and Sales Period subject to prior approval of such charges from NMC.

f. The Developer shall not part with or create any Encumbrance on the whole or any part of the Project Facilities, including the Project Site save and except as set forth and permitted under this Agreement.

g. The Developer hereby irrevocably appoints NMC (or its nominee) to be its true and lawful attorney, to execute and sign in the name of the Developer for transfer or surrender of the development and sales rights granted hereunder at any time after the Development and Sales Period has expired or has been terminated earlier in terms hereof, a sufficient proof of which will be the declaration of any duly authorised officer of NMC. To discuss

h. The Developer shall allow access to and use of the Project Site for laying/ installing/maintaining telegraph lines, electric lines, sewage lines or for such other public purpose as NMC may specify provided that such access or use shall not result in Material Adverse Effect and that NMC shall, in the event of any physical damage to the Project facilities on account thereof, ensure that the Project Facilities are promptly restored by such utility, at its own cost and expenses. Provided further, that to the extent such access and used allowed by the Developer affects the performance to any of its obligations hereunder, the Developer shall not be in breach of its obligations nor shall it incur/suffer any liability on account thereof.

i. The Developer shall allow free access to the Project Site at any time as deemed necessary by NMC to the authorised representatives and vehicles of NMC, Lenders and Independent Engineer and for the persons and vehicles duly authorised by any Government Agency to inspect the Project or to investigate any matter within their authority, and upon reasonable notice, the Developer shall provide

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to such persons reasonable assistance necessary to carry out their respective duties and functions.

3.4 Peaceful Possession

a. NMC hereby warrants that The Project Site together with the necessary right of way, way-leaves is vested with NMC

b. The Developer shall, subject to complying with the terms and conditions of this Development Agreement, remain in peaceful possession of the Project Site. In the event the Developer is obstructed by any Person claiming any right, title or interest in or over the Project Site or any part thereof or in the event of any enforcement action including any attachment, distrait, appointment of receiver or liquidator being initiated by any person claiming to have any interest in/charge on the Project Site or any part thereof, then NMC shall if called upon by the Developer, defend such claim and proceeding also keep the Developer indemnified against any consequential loss or damages which the Developer may suffer, on account of any such right, title, interest or charge. However, even in such case the claim against NMC shall only be restricted only up to the Upfront Premium received at the time of signing of Development Agreement.

3.5 Protection of Site from encroachments

During the Development and Sales Period, the Developer shall protect the Site from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Contractor or other person claiming through or under the Developer to place or create any Encumbrance or security interest over all or any part of the Site or the Project Facilities, or on any rights of the Developer therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement.

3.6 Geological and Archaeological finds

It is expressly agreed that mining, geological or archaeological rights do not form part of the lease rights granted to the Developer under this Agreement and the Developer hereby acknowledges that it shall not have any mining rights or interest in the underlying minerals, fossils, antiquities, structures or other remnants or things either of particular geological or archaeological interest and that such rights, interest and property on or under the Site shall vest in

and belong to NMC or the concerned Government Agency. The Developer shall take all reasonable precautions to prevent its workmen or any other person from removing or damaging such interest or property and shall inform NMC forthwith of the discovery thereof and comply with such instructions as the concerned Government Instrumentality may reasonably give for the removal of such property.

3.7 Felling/Transplantation of trees

a. The Developer shall be responsible for the felling/transplantation of trees as per the Applicable Law.

b. The cost of such felling/ transplantation shall be borne by the Developer.

c. NMC shall assist the Developer in obtaining the Applicable Permits for felling/transplantation of trees to be identified by the Developer for implementation of the Project, if and only if such trees cause a Material Adverse Effect on the construction, operation or maintenance of the Project.

d. The valuation of the felled trees shall be undertaken as per the Applicable Law and the said value shall be deposited by the Developer with NMC and after such payment, the felled trees shall be deemed to be owned by the Developer and shall be disposed off in such manner as the Developer may in its sole discretion deem appropriate in a lawful manner.

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Article 4. GRANT OF RIGHTS

4.1 Grant of Development & Sales Rights

1. Subject to and in accordance with the terms and conditions set forth in this Agreement, the Authority hereby grants to the Developer and the Developer hereby accepts the license for a period of 84 months commencing from the Commencement Date for the pre-construction & construction activities within the construction period and the right to operate & maintain and undertake marketing & sales of the Project Facilities/Components during the subsistence of the Development and Sales period ("Project Rights").

2. The Developer herein is given the license in respect of the land parcel measuring 3363 square meters, for development of the Project for which the FSI permitted by the Town Planning Department is 4.00 as per the UDCPR 2020 and the restriction on height as approved by AAI is 42.05 metres which generally allows a building above existing ground level. The developer has to develop the project within this framework.

3. Subject to and in accordance with the terms and condition set forth in this Agreement, Applicable Laws and the Applicable Permits, NMC hereby grants to the Developer for development and sales rights set forth in this Agreement including exclusive right, and authority to design, engineer, procure, finance, construct, install, commission, operate & maintain prior to sales, market and undertake sales of the Project Facilities on the Project Site in line with the prevailing laws, rules and regulations subject to the and Good Industry Practices and to exercise and/or enjoy the rights, powers, benefits, privileges, authorizations and entitlements to :

a. Right of way, access to the Project Site for the purpose of and to the extent conferred by the provisions of this Agreement.

b. Perform and fulfil all of the Developer's obligations under and in accordance with this Agreement;

c. Empowered for removing any encroachments on the Project site during and prior to transfer to NMC, during and at the end of the development period

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d. To design, engineer, finance, procure, construct, administer, install, commission, operate and maintain the Project Facilities either itself or through such person as may be selected by it;
e. Bear and pay all costs, expenses and charges in connection with or incidental to the performance of the obligations of the Developer under this Agreement including Capital Expenditure;

f. Upon completion of the Construction Works for the Project Facilities, to manage, operate and maintain the same either itself or through such person as may be selected by it, provided that the ultimate obligation and responsibility for the performance of this agreement shall continue to vest with the Developer till the handover of the property to respective buyers;

g. To demand, collect and appropriate sales revenue amounts from buyers liable for payment of such amounts for the purchase of any of the components of the Project & any part thereof.

h. To collect the sales revenue from buyers into the project Escrow Account

i. To collect the Parking and Advertisement fees/charges etc as applicable.

j. To borrow or raise money or funding required for the due implementation of the Project without creating a mortgage, charge or create lien on the Project land. The Project land shall be in the name of NMC till 100% payment of the NMC Revenue Share is made by the Developer and the Project development is completed in all respects.

k. To obtain the utilities required for enabling the construction and operation of the Project Facilities;

l. Exclusively hold, possess, and control the Site, in accordance with the terms of the Development Agreement;

m. Neither assign, transfer or sublet or create any lien or Encumbrance on this Agreement, or the Development Rights hereby granted or on the whole or any part of the Project nor transfer, lease or part possession thereof; save and except as expressly permitted by this Agreement; and

n. To transfer the Project Facilities to the buyers on signing of Sale Agreement or Deed of Apartment or any other legal document which transfers the ownership of the project component to the buyer and all such documents shall be recognised by the prevailing law and depending on the legal implications of the same at the time of execution. Unsold project components shall be transferred to NMC on Transfer Date at a value calculated as the construction cost plus interest (interest rate calculated as prevailing SBI Bank Rate+2%). The final decision regarding the transfer value of unsold project components shall be taken by the Strategic Committee.

o. To apply for and obtain all requisite clearances including the Environment Clearance, approvals and consents including from all Governmental Authorities concerned for the development of the Project Facilities.

p. In case of any delay in obtaining the Environment Clearance by the Developer, the period of 30 months shall not be extended under any circumstances. The Developer has to manage and balance between the construction period and period required for Environment Clearance within 30 months only.

q. Any part of the work may be sub-contracted by the Developer through construction contracts/ O&M Contract, provided always that notwithstanding the construction contracts/ O&M Contract, the Developer retains overall management, responsibility, obligation and liability in relation to the sub-contracted work. Any such subcontracting shall not relieve the Developer from any of its obligations in respect of the provision of such work under this Agreement. It is clarified that Developer shall remain liable and responsible for any acts, omissions or defaults of any subcontractor, and shall indemnify the Authority in respect thereof. The Developer shall not be allowed to sub contract the entire contract and the Developer shall only be solely responsible for the Project.

4.2 Development and Sales Period

a. The Development and Sales Period shall mean the period of 84 (eighty four) months inclusive of the construction period of 30 months commencing from the Commencement Date.

b. Provided that in the event of Termination/Foreclosure, the Development and Sales Period shall be limited to the period commencing from the Commencement Date and ending with the Termination Date/Foreclosure Date.

c. The Developer shall complete the Construction Works within a maximum period of 30 months commencing from the Commencement Date.

4.3 Acceptance of Development and Sales Rights

a. In consideration of the rights, privileges and benefits conferred upon the Developer and other good and valuable consideration expressed herein, the Developer accepts the Development and Sales Rights hereby granted for the implementation of the Project

b. The Developer shall commence the Construction Work for implementation of the Project only after the receipt of the Commencement Certificate from NMC and the Developer agrees undertakes to perform / discharge all of its obligations in accordance with the provisions hereof.

4.4 Transfer of rights on Project Site

a. The ownership of the project land shall vest with NMC till completion of construction and sales of the Project and 100% realization of the NMC Revenue Share from the sales consideration from the constructed project.

b. NMC shall grant license to the Developer to enter and use the Project Site for the purpose of implementation of the Project. NMC shall, by virtue of this agreement, only grant development and sales rights to the Developer to execute and implement the Project in accordance with this Agreement at its cost and risks.

c. For avoidance of doubts, it is hereby clarified that the Developer shall not be allowed, in any case, to sell, hypothecate, mortgage or create any lien or encumbrances on the project land.



4.5 Additional Development at the Project Site

a. The FSI permitted by the Town Planning Department is 4.00 as per the UDCPR 2020 and the restriction on height as approved by AAI is 42.05 meters which generally allows a building above existing ground level

b. Any additional revenue that can be generated by the Developer through the following:

i. Enhanced FSI beyond 4.00
ii. Enhanced P-Line Area
iii. Enhanced height above 42.05 mtrs and
iv. due to any changes/updations in the development control rules

c. In case the prospective developer plans to develop the project beyond the FSI/P-Line Area and height utilization allowed under this RFP by NMC and utilizes additional FSI/P-Line Area and height, then such revised drawings shall be submitted and approved by NMC.

d. The Planning for any Additional Development shall be submitted to the Strategic Committee of NMC for its approval.

e. In case of any additional development, the said Design & Architectural Planning shall be submitted to NMC and its Independent Engineer for approval and such additional designs and planning shall be within the building elevational framework of the original planning of NMC for the entire Orange City Street Project. The Developer shall also submit to NMC for its approval, the Revenue Model for any such additional development.

f. In case where the FSI/P-Line Area and height is enhanced, then for the calculation of development charges & NMC revenue share for such enhancement, it shall be put up to the appropriate authority of NMC for final decision.

g. On approval of the revised Planning/Revenue Model of the Developer, the additional revenue being generated by the

Developer shall be shared with NMC through an appropriate revenue sharing mechanism. The same shall be captured through a Supplementary Agreement to the Development Agreement.

h. In case of any additional revenue accruing to the Developer due to any policy regarding the Transferable Development Rights (TDR) notified by NMC or Government of Maharashtra or Government of India, the calculations of such revenue shall be submitted to the Strategic Committee, NMC and the equitable sharing of the benefit shall be mutually decided.

i. The decision regarding the availing of additional development shall be taken by the Developer before issuance of the Completion Certificate for Construction Works.

j. Safety and privacy of the occupants occupying the Project Facilities (as part occupancy is allowed) shall be maintained at all times by the Developer while implementing the Additional Development.

k. **Structural Stability:**

   i. Any proposed Additional Development by way of enhanced FSI or increase in height or otherwise shall need to be appraised for its Structural Stability. The structural drawings of the Project shall have to be vetted and approved by VNIT/IITs and the sole responsibility for this shall be with the Developer and NMC shall bear no liability towards the same.

l. **Revenue Sharing Mechanism for Additional Development:**

   i. Any development above the currently approved 42.05 meters and/or 4.00 FSI shall be construed as Additional Development.

   ii. For Revenue Sharing proposed between NMC and Developer of the revenue accrued from any such Additional Development shall be referred to the Strategic Committee. The Strategic Committee shall analyze the Revenue Model for the Additional Development submitted by the Developer.

iii. Based on its analysis the Strategic Committee shall devise an equitable and fair Revenue Sharing mechanism and it shall be implemented by executing a Supplementary Agreement between NMC and the Developer.

m. **Valuation of Additional Development:**

i. For arriving at the Sale Value of any additional development, valuation shall be undertaken by the Developer through three reputed and registered Valuers. (Registered with Institution of Valuers) and based on this Valuation Report the Sale Value for additional development shall be finalized.

ii. For valuation of the TDR, if any, the policy notified by NMC or Government of Maharashtra or Government of India shall be adopted

4.6 Designing & Specification

a. The Bidder can propose its own Design & Specification which it feels is viable and aesthetically suitable for the project **(the "Proposed Design")** but such design specifications in any case shall not be inferior to the design specifications specified in the Conceptual Design Proposal of NMC as indicated in the Volume III of the Bidding Documents.

b. The Development Charges during the sanctioning of the Building Plan for the currently approved 42.05 meters or 4.00 FSI payable to Town Planning Department shall not be applicable for the project, this being a NMC project.

c. M/s Architect Hafeez Contractor shall be the Independent Engineer/Monitoring Agency for the Project on behalf of NMC. The Independent Engineer shall give its approval for the building drawings and elevational drawings submitted by Developer before its submission to the Town Planning Department, NMC.

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d. The Bidder needs to ensure the following:

i. The Proposed Design shall be as per the UDCPR 2020 and its up-dations and Specification shall be as per National Building Code (NBC) and I.S. Codes.

ii. The Developer should plan the Project in sync with the conceptual idea of the entire Orange City Street Project.

iii. The Building Elevation as per the Orange City Street Project theme should be adhered to at all times by the Developer.

iv. The Building Elevational Intent as per the Conceptual Design Proposal of NMC is provided as Volume III of the Bidding Documents and should be maintained at all times.

e. Notwithstanding anything contained in this Agreement, the NMC reserves the Right to accept or reject any Design & Specification at any time without any liability or any obligation for such acceptance or rejection and without assigning any reasons thereof.



Article 5. Independent Engineer/Monitoring Agency

5.1 Appointment

a. NMC has appointed M/s. Architect Hafeez Contractor as its Project Management Consultant for the Project and who shall also be the Independent Engineer cum Monitoring Agency of NMC for the activities of the Developer and its PMC for this project.

b. The Developer may appoint its own Project Management Consultant ("**PMC**") for the Project and shall execute a PMC Contract for its appointment, a copy of which shall be provided by the Developer to NMC.

c. The Developer do hereby acknowledges the rights and obligations of Independent Engineer contained in the Independent Engineer Contract and undertakes to comply and facilitate performance of its obligations by Independent Engineer. (The Independent Engineer contract is available for reference in the Office of the Executive Engineer (Project), NMC, Nagpur. The prospective bidders are expected to go through the Contract prior to submission of their bids).

d. The designs proposed by the Developer are subject to the approval of NMC through its Independent Engineer cum Monitoring Agency, M/s Architect Hafeez Contractor.

e. The Developer shall provide the Independent Engineer with complete access to the Technical Information as would, in the reasonable option of the Independent Engineer, be necessary for the determination and performance of the services by Independent Engineer as set forth in Article 5.2 below and as more specifically set out in Independent Engineer Contract.

f. All project related documents, drawings, plans etc. shall be accessible to the NMC Independent Engineer by the Developer, its PMC and any other entity eligible for it.



5.2 Functions of NMC Independent Engineer

a. Review of Project drawings submitted by the Developer to NMC before submission to the Town Planning Department, NMC. Independent Engineer shall undertake a detailed review of the Designs/Drawings to be furnished by the Developer along with supporting data for conformity or otherwise of such Designs/Drawings with the Scope of the Work and specifications and standards for the Works. Independent Engineer shall complete such review and approval of the proposed designs/drawings and send its recommendations/comments/observations to NMC and the Developer within 15 (fifteen) days of receipt of such Designs/Drawings.

b. Review the Good For Construction Drawings (GFC) submitted by the Developer and submit its report on the same within 15 days of receipt of the GFC Drawings. In case of non conformance by the Developer the same shall be intimated to NMC.

c. Review of the construction milestones submitted by the Developer in conformance with the Project construction plan in the DPR;

d. Review, inspection and monitoring of Construction Works. In the event that the Developer fails to achieve any of the construction milestones as per Clause 6.4.4, Independent Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Independent Engineer determines that completion of the Project Facilities is not feasible within the time specified in the Agreement, it shall require the Developer to indicate within 10 (ten) days the steps proposed to be taken to expedite progress, and the period within which the Construction Works would be completed.

e. For determining that the construction conforms to construction requirements, Independent Engineer shall require the Developer to carry out, or cause to be carried out, tests on a sample basis, in accordance with Good Industry Practices for quality assurance.

f. Review the test reports in a timely manner and as per Good Industry Practices on completion of construction and for issuing Completion/Provisional Certificate;

g. Review, inspection and monitoring of operations and maintenance including books of accounts of the Developer and require the copies of relevant extracts of books of accounts, duly certified by the Statutory Auditors, to be provided to the NMC for verification;

h. Determining as required under the Agreement the cost of any works or services or their reasonableness;

i. Determining as required under the Agreement, the period or any extension thereof, for performing any duty or obligations and recommend the same to NMC;

j. Upon reference by NMC, Independent Engineer shall review and comment on the contracts entered into by the Developer for the purpose of implementation of the Project;

k. Independent Engineer shall review the monthly progress report furnished by the Developer and its PMC and send its comments thereon to NMC and the Developer within 7 days of receipt

l. Assisting the parties in case of any dispute

m. Independent Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice

n. The Independent Engineer shall determine and certify whether the Developer has completed the Project Facilities as per the approved DPR, Work Plan & Methodology and standard industry practices and issue a Project Completion Certificate on the completion of the Project Facilities.

o. The Independent Engineer will carry out an assessment of the Project in terms of the progress done every 3 (three) months or on request of NMC.

p. Issuance of orders/certificates/letters such as Commencement, Compliance, Completion etc.



5.3 Right of access to Information to the Independent Engineer

Upon a reasonable notice, the Developer shall grant and procure that all Contractor(s) shall grant to the agents, employees and other representatives of NMC and to the Independent Engineer complete access to the construction and developmental activities for the Project and records maintained by the Developer.

5.4 Decision of the Independent Engineer

The decision of the Independent Engineer regarding any technical/designing matter of the Project shall be final and binding on the Developer.



Article 6. Obligations of the Developer

6.1 Developer's Obligations

6.1.1 Subject to and on the terms and conditions of this Development Agreement, the Developer shall, at its own cost and expense, procure finance for and undertake the design, engineering, procurement, construction, operation, maintenance, marketing and sales of the components of the Project and observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.

6.1.2 **The Developer shall at its own cost and expenses:**

a. The prospective Developer should plan the Project in synchronization with the conceptual idea of the entire Orange City Street Project. The front Arcade with commercial shops on the Ground and First floor and building elevation as per the Orange City Street theme should be strictly adhered to at all times. Any change is use proposed by the Developer after Ground and First floor should be permissible as per the UDCPR 2020 and as defined in this draft Development Agreement.

b. Design the project in line with the elevational drawings issued by NMC in Volume III of the bidding documents.

c. Appoint its architect for the project.

d. Obtain all the Applicable Permits and approvals from appropriate Government Agency, as may be required for performance of its Obligations under this Agreement. The Developer shall be responsible for and shall comply with the terms and conditions subject to which Applicable Permits have been issued.

e. Shall assist NMC in obtaining approval for the Project sanction, if any, required from the Government of Maharashtra or any other Competent Authority. Such approval may be necessitated at any time after issuance of the Letter of Award.

f. To obtain the Environment Clearance, if applicable under law from the competent authority. In case of any delay in obtaining the Environment Clearance by the Developer, the construction period of 30 months shall not be extended under any circumstances. The prospective developer has to manage and balance between the

construction period and period required for Environment Clearance within this 30 months only.

g. In case the prospective developer plans to develop the project beyond the FSI/P-Line Area and height utilization allowed as specified by NMC in the draft Development Agreement and utilizes additional FSI/P-Line Area and height, then such revised drawings shall be submitted and approved by NMC.

h. Such additional utilization shall constitute Additional Development as spelt out in Development Agreement.

i. The limits of the Building Plan sanction i.e. P-Line Area and height of the project shall be governed by the prevailing UDCPR and the provisions in the Development Agreement. Subsequent revisions within the same P-Line Area and height shall not attract additional Development Charges.

j. In case where the FSI/P-Line Area and height is enhanced, then for the calculation of development charges & NMC revenue share from such Additional Development, it shall be put up to the appropriate authority of NMC for final decision.

k. In case of revision of the drawings, obtain the approval of the Town Planning Department, NMC and obtain the revised Fire NOC and pay the necessary revision charges as applicable.

l. In case of revision of the drawings obtain the revised Airport Authority of India NOC and pay the necessary revision charges as applicable.

m. Undertake the Sales of the various components of the Commercial Complex and demand, collect, retain and appropriate sales revenues.

n. Disburse to NMC the Upfront Premium and the quoted Financial Offer as per the payment schedule described in this Development Agreement.

o. In case the Developer intends to include Multiplex/ Theatre, Hotels and Restaurants within the Project Facilities then obtaining the necessary applicable Statutory Clearances as well as approval from Town Planning/Health Department, NMC and other authorities as

applicable under the law, shall be the sole responsibility of the Developer and NMC shall incur no liability for the same.

p. For any relaxations sought by the Developer with regard to the preparation and approval of the Construction Drawings as per the prevailing UDCPR 2020 and Town Planning Department of NMC, the decision of the Commissioner shall be final and binding. All relevant charges for obtaining such relaxations shall be borne by the Developer and NMC shall incur no liability in this regard. If any relaxation from the norms of the UDCPR 2020 /Town Planning Department is allowed and this enhances the revenue earning of the Developer, such benefits of the enhanced revenue shall be shared equally with NMC, failing which such relaxations would be cancelled.

q. Make, or cause to be made, necessary applications to the relevant Government Agency with such particulars and details as may be required for obtaining Applicable Permits, comply with all applicable requirements, guidelines etc. laid down under the Applicable Laws and and obtain and keep in force and effect such Applicable Permits in conformity with the Applicable Laws;

r. Shall not mortgage or create any Encumbrance or lien on the Project Land under any circumstances.

s. Ensure that the development of the Project Facilities is in accordance with the approved Detailed Project Report (DPR) and Detailed Drawings & Designs.

t. That the adjacent property (ies) should not be damaged in any manner. If the adjacent property (ies) is affected or damaged, then the Developer shall restore it to the original state at its own cost;

u. Procure and maintain in full force and effect as necessary, proprietary rights, licenses, agreement and permissions for materials, methods, processes and systems used in or incorporated in the project;

v. Make efforts to maintain harmony and good industrial relation among the personnel employed in connection with the performance of its obligations and shall be solely responsible for compliance with all labor laws and solely liable for all possible project claim and employment and related liabilities of its staff employed in relation with the Project and hereby indemnifies against any claims, damages, expenses or losses in this regards and that in no case and

shall for no purpose shall NMC be treated as employer in this regard;

w. Be solely liable for all possible losses and claims in relation to any environmental damages caused during the development of the Project Site and here by indemnifies NMC against claims, damages, expenses or losses in this regards;

x. Make its own arrangement for procuring materials and observe, fulfill and comply with the conducted Environmental Impact Assessment (EIA) study as required for the project.

y. Ensure that the Project Site remains free from any encroachments and in the event of any encroachment or occupation on any part thereof, the Developer shall report such encroachment or occupation forthwith and take all steps necessary to remove encroachments that are at the Project Site subsequently;

z. Allow access to the project Site to authorized representatives of NMC, its Independent Engineer and any Government Agency for the purposes of ascertaining compliance with terms, covenants and conditions of this Agreement.

aa. Pay all applicable charges pertaining to the Project Site and the Construction Works being undertaken on the Project Site, including utility charges relating to the Project Site.

bb. Undertake Operation and Maintenance for the Project during the entire development and sales period in accordance with O&M Requirements which in turn shall have to be followed diligently by the Developer. Non-compliance on the same ground on a consistent basis for a period of more than 90 days will be considered a major breach of the agreement and invite action as per stipulated conditions of the agreement.

cc. Deploy adequate number of Staff/O&M agency for proper operation and maintenance of the Mixed Use Commercial Complex till the entire Project is handed over to the buyers' and the society is formed;

dd. Plan the proposed facility as a "Green Building" with smart features and the bidder shall get it certified from relevant Indian authorities' viz. IGBC/ GRIHA/ASSOCHAM etc and maintain the same during the Development and Sales period

ee. Make provision for a Site Office with necessary facilities such as computers, printers, table, chairs, cupboards etc and which shall be accessible to NMC officials and its PMC/Independent Engineer for necessary Project Management activities.

ff. Make provision for generation of power through use of Solar panels should be planned in the Facility.

gg. Make provision for Electric Vehicle Charging nodes in the parking of the Project Facility.

hh. To undertake felling/ transplantation of the existing full grown trees on the project site as per the prevailing laws.

ii. To undertake all activities for conforming to RERA compliance including maintaining the books of accounts and compulsory registration with MAHARERA.

jj. Would be responsible for attending and rectifying any Project/construction related grievances of the buyers' as per the RERA Act 2016.

kk. Would be responsible for attending to any grievances arising during construction of the Project as per the RERA Act 2016.

ll. Should plan and develop mechanical parking facilities at the Project Site.

mm. The Operation & Maintenance of the parking area shall be with the Developer till the entire Project is handed over to the buyers' and the society is formed.

nn. The Developer shall manage its cost for such O&M from its own resources and /or charges from buyers and NMC shall in no way be responsible for any such O&M responsibilities and costs.

oo. Earn Parking and Advertisement Revenue from the Project from the issuance of the Occupancy/Part Occupancy Certificate till complete handover to the buyers/society formed by the buyers'.

pp. Ensure and procure that its Subcontractors comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Developer's obligations under this Agreement;

qq. Surrender the Project to the Authority upon expiry of the Contract Period or upon the Termination of this Agreement, in accordance with the provisions thereof for any reason whatsoever;

rr. Deposit the revenue accrued from the Project from appropriate contractual arrangements as per this Agreement into the project Escrow Account., Further the payment of NMC Revenue Share shall be made into the designated NMC Bank Account from the project Escrow Account.

ss. To undertake health and safety measures at the project site during the construction period as per the Indian Standard/CPWD Handbook guidelines.

tt. For all registrations under the Applicable Laws, the Developer shall be the principal employer and NMC shall bear no cost and liability towards the same.

uu. Developer to register itself as Principal Employer with all statutory agencies and hence for any liability/obligations arising from any labor or workmen's issue, the Developer, being the Principal Employer, shall be solely responsible.

vv. The Developer shall ensure compliance with the following Acts:

i. The Building and Other Construction Workers Welfare Cess Act 1996 and the rules framed there under.
ii. The Maharashtra Private Security Guards (Regulation of Employment and Welfare) Act of 1981
iii. The Private Security Agencies (Regulation) Act 2005 and the Rules framed there under.
iv. The Employees Provident Fund and Miscellaneous Provision Act 1952 and the Regulations framed there under
v. The Minimum Wages act,
vi. The Workmen Compensation Act
vii. The Contract Labour (Regulation and Abolition) Act 1970 and other related labour Acts
viii. All applicable Central and State Labour Acts.

ww. The Developer shall submit a "Structural Safety Certificate" of the proposed Facility from the competent institution i.e. VNIT before the commencement of sales of the project components. The Developer shall ensure that the certificate is also counter certified/ signed by the Independent Engineer.

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xx. The Developer is responsible for payment of all applicable taxes including GST on NMC Revenue Share in relation to construction and development, till handing over of the Project to the buyers or NMC as the case maybe.-obligations.

yy. The Developer shall duly discharge and settle all payments and dues including but not limited to cost of building materials/ designing/ certifications/approvals etc and any other dues or claims whatsoever as per Applicable Law and to keep the Authority fully indemnified against all claims and demands of any such payments and dues and all actions, proceedings, damages, costs and expenses resulting from any such claims and demands.

zz. Developer shall ensure and procure that its contractors comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Developer's obligations under this Agreement.

aaa. Prior to commencement of the construction activities, Developer is required to get approval of the detailed building development plan submitted as part of Detailed Project Report from NMC, on the basis of which the Developer shall develop the project site.

6.1.3 Shareholding Lock-in Obligations

Shareholding obligation for Single Entity

The Selected Bidder (in case of consortium, the lead member) shall hold not less than 51% (Fifty One percent) or more of the Equity of the SPV for the entire Development and Sales Period and/or till 100% realization of NMC Revenue Share.

Shareholding obligation for Consortium:

a. The Developer shall commit that the Lead Member and each of the other members whose experience has been evaluated at this RFP stage, shall subscribe at least 51% (fifty per cent) or more and 21% (twenty one percent) or more respectively, of the paid up and subscribed equity of the SPV for the entire Development and Sales Period and/or till 100% realization of NMC Revenue Share.

   Notwithstanding anything to the contrary, at no stage, no change in the shareholding patterns of minimum requirement as stipulated above shall be made by the Developer in the Consortium. Also no

change shall be made without obtaining prior approval from the Authority. On an application made for the purpose, the Authority may permit the change of equity components/ shareholding patterns provided the Authority is satisfied that the proposed changes shall be in the interest of the implementation of the Project in future and would not be detrimental to any of the rights or interests of the Authority and any of the confirming authorities. However, no such change in the shareholding pattern shall be permitted by the Authority, which would make the Consortium Members or Associates or the Developer non-compliant with sub-clauses above.

b. The above restriction also applies to the direct or indirect transfer of control of legal or beneficial ownership of shareholders of the Developer. The expression "control" a shall have the meaning ascribed thereto in the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeover) Regulations, 2011 or any statutory re-enactment thereof as in force as on the date of acquisition of control.

Obligations Relating to Change in Ownership

The Developer shall not undertake or permit any Change in Ownership.

6.2 Pre-construction Obligations

6.2.1 Submission and Approval of Detailed Project Report

a. The Developer shall, before commencement of Construction Works, have requisite organization and designate/appoint suitable officers/ representatives as it may deem appropriate to supervise the Project, to liaise with the Independent Engineer/ NMC and to be responsible for all necessary exchange of information required pursuant to this Agreement;

b. Undertake, do and perform all such acts, deeds and things as may be necessary or required before commencement of construction under and in accordance with this Agreement, the Applicable Laws and Applicable Permits;

c. Prepare and submit the Detailed Project Report to NMC for its approval within 75 days of the Effective Date.

d. The Developer shall, at its own cost and subject to the term and conditions of this Agreement, prevailing bye laws and UDCPR 2020,

prepare a construction plan consistent with the DPR for construction of the Project Facilities and submit the same to NMC for its approval within 75 days from the Effective Date.

e. NMC shall, within a period of 15 days from submitted DPR, review and approve the same, or shall communicate the changes, revisions and modification in the DPR. The Bidder shall make the changes, revisions and modification within 15 days from such receipt of the comment by NMC /Independent Engineer and shall resubmit the DPR to NMC for its approval. If however, NMC delays in responding towards the DPR and Drawings & Designs submitted for more than 30 days from the receipt of the DPR then the Developer will be entitled to get an extension of the Development and Sales Period, equivalent to the number of days of delay after 30 days period, subject to the discretion of NMC.

f. NMC shall, within a period of 15 days from such resubmission, ascertain whether the Developer has carried out the changes, revision and modification and accordingly accord its approval to the Construction Plan and issue a Commencement Order to enable the Developer Construction Works.

g. The Developer can commence the Construction Works only after the receipt of the Commencement Order. The Developer shall adhere to the approved construction plan and Standards and Specifications mentioned in Schedule 5 to this Agreement. However, if the Developer desires to deviate from the approved construction plan for the Project Facilities, then it shall seek a prior written permission from NMC.

h. The contents of the Detailed Project Report and Drawings & Designs shall include but not necessarily restricted to:

i. Existing characteristics of the Project Site
   a. Physical characteristics and natural resources
   b. Demography
   c. Connectivity
   d. Facilities
   e. Infrastructure

ii. Land requirement & demarcations for
   a. Commercial areas
   b. Open spaces
   c. Transport and communication
   d. Water bodies

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e. Movement Plan and connectivity with the adjoining Metro Station.
f. Parking

iii. Development Aim and Objectives

iv. Development Proposal

v. Construction Plan and Technical Feasibility

vi. Development mix

vii. Phasing of the development

viii. Detailed Cost Estimates along-with justifications

ix. Financial Feasibility and Resource mobilization plan

x. Safety requirement

xi. Operation and Maintenance Requirements

xii. Schedule of the materials to be used for construction.

xiii. Strategy for Transfer of the facility to NMC in reasonably good condition, if applicable.

i. The Developer shall adhere to the approved Detailed Project Report at all times and shall not deviate from the approved Detailed Project Report, without the prior written consent of NMC.

j. The Developer shall submit to NMC a monthly progress report for the progress of implementation of the Project during previous month, on or before 10th Day of the month, commencing from the Commencement Date till the completion of the Project Facilities.

k. The Developer shall make necessary arrangements with the relevant Government Instrumentality for timely provision of water, electricity, sewage and disposal facility for the construction debris and other utility services at the Project Site as may be required from time to time during the Construction Period including but not limited to conducting the tests as envisaged under this Agreement. The Developer shall not hold NMC responsible for the same or any delay in the provision of the same by any of the Government Instrumentality;

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l. The Developer shall make necessary arrangement for all utilities including water supply at the Site during Construction and post construction for the buyers of the Project Components.

6.3 Project Construction Obligations

6.3.1 Construction of Project Facilities

a. The Developer shall submit a Project Completion Schedule and adhere to such the Project Completion Schedule and achieve COD on or before the Scheduled Project Completion Date. In the event the Developer fails to achieve the COD as per the Scheduled Project Completion Date, unless such failure has occurred due to Force Majeure or for reasons solely attributable to the Authority, the Developer shall pay as damages to NMC, a sum calculated at the rate of 12% interest on the balance amount payable to NMC as on the date of COD for each week of delay, until such COD is achieved. This shall be recovered from the Performance Security Bank Guarantee on a weekly basis. Whenever such damages are payable to NMC, the Developer shall replenish the Bank Guarantee within a period of 7 (seven) days.

b. The Construction period is 30 (thirty) months for the construction of the entire project but for this Clause 6.3.1 the period of 30 months shall be considered for payment of penalty for delay in achieving COD.

c. The Developer may undertake Construction Works by itself or through a Contractor possessing requisite technical, financial and managerial expertise / capability; but in either case, the Developer shall remain solely responsible to meet Standards and Specifications mentioned under Schedule 5 of this Agreement.

d. Make its own arrangements for procuring materials needed for the Construction Works and in accordance with the Applicable Laws and Applicable Permits.

e. The Developer shall adhere to all the construction requirements as per detailed construction plan and shall adhere to the standards and specification and other applicable standards / guidelines including BIS and Good Industry Practice.

f. The Developer shall promptly and in such sequence as is consistent with the construction plan, submit a copy of the drawings to the Independent Engineer for its review and comments. By submitting

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the drawings to the Independent Engineer and NMC as above, the Developer shall be deemed to have represented that it has verified and determined that the drawings forwarded are in conformity with the approved construction plan.

g. Within 10 days of receipt of the drawings, the Independent Engineer shall review the same taking into account, inter-alia, comments of NMC, if any, thereon, and convey its comments / observations to the Developer on the conformity of drawings with construction plan. If the comments / observations of the Independent Engineer indicate that the drawings are not in conformity with the construction plan, such drawings shall be revised by the Developer to the extent necessary and resubmitted to the Independent Engineer for its further review. The Independent Engineer shall give its observations and comments, if any, within 10 (ten) days of receipt of such revised drawings, which shall be taken into account by the Developer while finalising the drawings.

h. Notwithstanding any review or failure to review by or the comments / observations of the Independent Engineer or NMC, the Developer shall be solely responsible for the adequacy of the drawings and their conformity with the construction plan, and shall not be relieved or absolved in any manner whatsoever of any of its obligations hereunder.

i. The Developer shall remove and disposed off all debris and extra construction and building material (sand, gravel, stone, rock, loose earth etc.) lying at the Project Site or generated during the implementation to the Project as instructed by the Independent Engineer/NMC at its own cost.

j. For the purpose of determining that Construction Works are being undertaken in accordance with the requirements mentioned under the Agreement, coordinate with the PMC and diligently carry out all necessary and periodical Tests in accordance with the instruction and under the supervision of the the Independent Engineer. The Developer shall maintain proper record of such tests and the remedial measures taken to cure the defects or deficiencies, if any, indicated by the Test results.

k. The Developer while carrying out the Construction Works in accordance with the Specification mentioned herein, shall ensure the usage of latest and best suitable technology for the

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implementation of the Project. The cost for such implementation shall be solely borne by the Developer.

l. The Developer shall ensure that no interference or damage is caused to the properties of NMC or any other Person during development;

m. Maintain parts of the Project Facility wherein the construction has been completed while the construction of the remaining part of the Project Facility is being undertaken.

n. For the purpose of the construction of the Project and any matters incidental thereto, during the Construction Period, divert the flow of traffic if such diversion or interruption is necessary for the efficient progress of the Construction Works and in case non-diversion would result in a Material Adverse Effect to the Project. The Developer shall be responsible for obtaining all prior written permissions required from the relevant Government Instrumentality for the diversion of any traffic.

o. Shall, subject to Applicable Laws be responsible for the shifting of utility facilities, with the assistance of the relevant Government Instrumentality, such as electric cable/lines, water pipelines, telephone cables, etc., present at the Project Site whether over or under the ground only if such utility would cause a Material Adverse Effect in the construction of the Facility. The Developer shall execute all necessary Documentation required in relation to the shifting of any utility and shall not hold NMC responsible for the same.

p. Within 90 (ninety) days of COD, the Developer shall furnish to the Authority three set of "as built" Drawings, 2 (two) hard copies and 1(one) soft copy, reflecting the Construction Works which have been completed as on COD, are in a manner as set out in construction plan and Standard and Specifications. The Developer shall also submit an as built survey illustrating the layout of the Project Facilities and setback lines, if any, of the building and structures forming part of Project Facilities.

q. The Developer shall comply with the provisions of the National Building Code, General Development Control Rules and other guidelines of principles of Good Industry Practice as a reasonable and prudent person, and follow the statutory requirements which are applicable to it from time to time during the development and operation of the Project.

r. The Developer shall take prior approval of NMC in case there is any change in the Project Facilities defined under the Project during the Development and Sales Period which may be considered by NMC on a case to case basis.

6.3.2 Commencement & Completion Certificate

a. The Developer shall commence the construction of Project Facilities only when the Town Planning Department, NMC has approved the detailed drawings for the Project.

b. Upon completion of Construction Works and the Independent Engineer determining the Tests to be successful, it shall forthwith issue to the Developer and NMC a certificate certifying completion of the Construction Works ("**Completion Certificate for Construction Works**") and date for commencement of commercial operation for the Project (the "**Commercial Operation Date**" or "**COD**"). The Project shall enter into commercial services on COD.

c. Project Completion Certificate shall be issued to the Developer on successful completion of the Project wherein NMC has been paid its 100% Revenue Share from the sales proceeds from the sale of project components of the Project.

d. The Project Facilities shall be deemed to be complete under the following conditions:

   i. The Project Facilities will have to comply with approved Detailed Project Report.
   ii. The Project Facilities will have all the permits and clearances to be obtained.
   iii. The Project Facilities would have obtained final and unconditional waivers from all Contractors.

e. After the successful completion of the project i.e. Sales of all the constructed Project Components and 100% payment of the NMC Revenue Share, a Completion Certificate would be issued by NMC to the Developer indicating the completion of the contract(Completion Certificate for completion of Contract).



6.3.3 Rules for Development of the Project Facilities

The Project Facilities hereby proposed by the Developer to be so constructed shall comply with the following rules:

a. Applicable UDCPR 2020 and its updations, if any, for the Project Site on the date of submission of plans to the authority.

b. Floor Space Index (FSI) limits including any enhancements;

c. In case of any amendment or addition to the UDCPR 2020 as applicable, NMC shall have the final authority to approve the same for the Project.

d. The Developer has satisfied itself as to usability of the FSI of the Project Site before the signing of this Agreement. Therefore, non-usability of FSI for the Project Site would not be an excuse for the Developer for not complying with its obligations or for reduction in the financial quote of the Developer.

e. Obtaining and adopting the statutory requirements including but not limited to Fire, Health, Environment, as required.

f. The maximum height up to which the Project Facilities can be constructed shall be in accordance with the applicable UDCPR 2020 and as allowed by the Airport Authority of India.

g. Obtain approval of the designs from the ADTP, NMC, in case of any revisions in its Project Designs already approved by ADTP, NMC; it shall be the responsibility of the Developer to get such revised drawings approved from the Town Planning department of NMC.

h. Seek NMC approval for the Project DPR and its revisions/updations, if any.

i. Any other development with the prior written approval of NMC.

j. Technical Specifications shall be minimum as per the Volume III of this bidding document and when not specifically

mentioned then the prevailing specifications of PWD, Government of Maharashtra, CPWD, Government of India and Standard Codes such as Bureau of Indian Standards, other Indian Standards and good engineering practices shall prevail.

k. Intimation of every sale shall be made to NMC by the developer immediately on finalization of terms with buyer and before receipt of first down payment from the Purchaser.

l. The Developer shall appoint a facility management firm to maintain and manage the proposed facility with the approval from NMC for the entire Development and Sales period from the Occupancy Certificate, for proper operation and maintenance of the Commercial Complex till the complete Project is handed over to the buyers' and a society is formed.

m. **Plan for approval**

No work shall commence or carried out which infringes UDCPR 2020 and its applicable updations or any other Applicable Law for the time being in force as regards to construction on the Project Site and until the said plans, elevations, sections, specifications and details have been so approved as aforesaid and thereafter the Developer shall not make any alteration or addition thereto unless such alteration and addition shall be in the manner as approved by the Independent Engineer earlier.

6.4 Project Operational Obligations

6.4.1 General

a. The Developer shall operate and maintain the Project Facilities in accordance with the Applicable Laws and Good Industry Practice during the Development and Sales Period and as per the approved O&M Requirements under the approved DPR. The O&M Requirements contained in O&M manual submitted by the Developer shall be revised and updated every year or in such shorter duration as may be required.

b. The Developer may undertake operations and maintenance of the Project Facilities by itself or through engaging third party contractors with requisite technical, financial and managerial expertise / capability.

c. The Operation & Maintenance of the parking area shall be with the Developer till complete handover of the Project to the society formed by the buyers. The Developer shall manage its cost for such O&M from its own resources/charges or contribution from the buyers and NMC shall in no way be responsible for any such O&M responsibilities and costs.

d. The Developer shall obtain all the Applicable Permits and clearances from concerned authorities under the Laws and ensure legal compliance with Labor and other Applicable Laws at all times.

e. The Developer shall always display a Logo of Nagpur Municipal Corporation at prominent locations on the Project Facilities, preferably on the side facing the Main Road.

f. Logos of NMC as well as of M/s Architect Hafeez Contractor should also be displayed on any advertisement material, leaflets, brochures, sales documents etc. prepared by the Developer for the marketing & sales of the Project.

g. The Developer waives off any rights for an extension after the initial period of 84 (eighty four) months is over and has to transfer the fully constructed unsold project structures peacefully, free from any encumbrance or encroachments and in good working conditions as spelt out in this draft Development Agreement.

h. Good conditions shall imply that the conditions of the facilities, utilities, electrical fittings shall not be of a lower quality than as prescribed in the Standards and Specifications at the time of commencement of the Project. Natural wear and tear & deterioration shall be considered but deliberate damages shall not be considered.

i. NMC shall constitute a Committee under the chairmanship of the Hon'ble Municipal Commissioner for examination of the Project Facilities in case part of the unsold project components of the project need to be transferred to NMC. The issues raised by

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the committee shall need to be rectified by the Developer within 60 days. In case of failure to do so, for every day of delay under such circumstances, the Developer shall have to pay a sum equal to 0.10% (zero point ten percent) of the Performance Security per day to NMC. In case NMC encashes the Bank Guarantee to the extent indicated, the Developer shall replenish the same within 7(seven) days. NMC also reserves the right to appropriate the Performance Security in case of delays and damages. Decision of the Municipal Commissioner in this regard shall be final and binding.

j. The Developer shall nominate a representative with due legal authorization by way of a Power of Attorney on a stamp paper of appropriate value for conducting the day to day activities of the project including its O&M. The said representative shall be authorized for depositing of the Sales Proceeds with NMC as prescribed in the Development Agreement. In case of the untimely demise of the promoters/partners of the Developer, the respective legal heirs shall assume the mantle of Developer.

6.4.2 Extension of Time

a. Without prejudice to the rights, powers and remedies of NMC, NMC shall issue a notice to the Developer in the event there is a probable delay in completion of Project Facilities and achieving the Commercial Operation Date beyond the period of 30 (thirty) months from the Commencement Date for reason(s)other than the Force Majeure events.

b. In case of probable/intermediate delay in completion of the Construction Works of the Project is attributable to the Developer.

c. Where the COD does not occur as per the timelines indicated in the Project Completion Schedule, unless the delay is on account of reasons solely attributable to NMC or due to Force Majeure, the Developer shall pay liquidated damages to NMC which shall be at the rate of 0.10% (zero point ten percent) for each day of delay in achieving COD, subject to maximum of 10% (ten percent) of the amount of Performance Security. The performance security used by NMC to recover the liquidated damages needs to be replenished within 07 days of recovery. If Developer fails to replenish performance security, NMC shall have right to terminate the contract for default on part of Developer.

d. If the delay extends beyond a period of two months or if the Developer fails to make any payment as per the penalty terms mentioned above, NMC shall, subject to the provisions of Article 14.1 terminate this Agreement and forfeit the Performance Security.

6.4.3 Insurance

a. The Developer shall, at its costs and expenses, purchase and maintain during the subsistence of this Development Agreement insurance to cover against:

i. Loss, damages or destruction of the Project Site, at replacement value;

ii. The Developer's general liability arising out of this Agreement;

iii. Liability to third parties;

iv. Labor Insurance in accordance with the prevailing Labor Laws.

v. The risk that may devolve on NMC as a consequence of any act of negligence or omission by the Developer; and

vi. Any other insurance that may be necessary under and in accordance with the Financing Documents, Applicable Laws and Good Industry Practices to protect the Developer and its employees and other including all Force Majeure Events that are insurable and not otherwise covered in items above.

b. For the sake of brevity, the aggregate of the maximum sums insured under the insurance taken out by the Developer pursuant to this Article are herein referred to as the "**Insurance Cover**".

c. **Evidence of Insurance Cover**:

All insurance obtained by the Developer in accordance with this Clause 6.4.3 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 15 (fifteen) days of obtaining any insurance cover, the Developer shall furnish to NMC, 2 (two) notarized true copies of the certificate(s) of the insurance, 2 (two) copies of the insurance policies and premia

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payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Developer to NMC.

d. Such Insurance Cover shall not be cancelled, changed or terminated until the expiry of the least 45 days after written notice of such cancellation, change or termination has been given to NMC in writing.

e. On transfer of the Project Facilities to the buyers, the residual Insurance Cover shall be transferred to the buyers. The buyers/society formed by buyers shall have the option of maintaining such Insurance Cover.

f. All insurance policies in respect of the Insurance Cover obtained by the Developer shall include a waiver of any and all right of subrogation or recovery of the insurers there under against, inter alia, NMC, and its assigns, successor, undertaking and their subsidiaries, affiliates, employees, insurers and underwriters and of any right of the insurers of any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

g. The Developer hereby further releases, assigns and waives any and all rights of recovery against, inter alia, NMC and its assigns, undertaking, and their affiliates, subsidiaries, employees, successors, assigns, insurers and underwriters, which the Developer may otherwise have or acquire in or from or in any way connected with any loss, liability or obligations covered by policies of insurance maintained or required to be maintained by the Developer pursuant to this Agreement (other than Third Party liability insurance policies) or because of deductible Articles in or inadequacy of limits of any such policies of insurance.

h. Subject to the provisions of the Financing Documents and unless otherwise provided herein, the proceeds under Insurance Cover of all insurance policies received shall be promptly applied by Developer towards repair, renovation, restoration or re-instatement of the Project Facilities or any part thereof which may have been damaged or destroyed. The Developer shall carry

such repair, renovation, restoration or re-instatement to the extent possible in such manner that the Project Facilities after such repair, renovation, restoration or re-instatement to the extent possible in the same condition as it were prior to such damage or destruction, normal wear and tear accepted.

i. **Remedy for failure to insure:**

If the Developer shall fail to effect and keep in force all insurance for which it is responsible pursuant hereto, NMC shall have the option to either keep in force any such insurances, and pay such premia and recover the costs thereof from the Developer, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Developer.

6.4.4 Milestones for Construction:

S.N.	Percentage of Project Completion in terms of the approved Project Cost	Percentage of time taken from the maximum of 30 months
1.	10%	25%
2.	35%	50%
3.	65%	75%
4.	100%	100%



6.4.5 Safety

The Developer shall abide by the following in so far as they related to safety of the Users:

i. Applicable Laws and Applicable Permits;
ii. Manual for Safety, issued by the Authority;
iii. Provision of this Agreement;
iv. Good Industry Practice

a. Appointment of Safety Consultant

i. For carrying out safety audit of the Project, Developer shall appoint from time to time, one or more qualified firms or organization as its consultant **(the "Safety Consultant").** The charges for such Safety Consultant shall be borne by the Developer.

ii. Once in three months during the construction period and once a year post construction completion, a safety audit shall be carried out by the Safety Consultant. It shall review, compile and analyze the annual report and accident data of the preceding year, and undertake an inspection of the Project.

iii. The Safety Consultant shall complete the audit within a period of 7 (seven) days and submit a Safety Report **(the "Safety Report")** recommending specific improvements, if any, required to be made in the Project. The Safety Report shall be submitted to NMC, in 3 (three) copies and one copy shall be submitted to NMC Independent Engineer.

iv. One copy each of the Safety Report shall be forwarded by NMC to the Developer and the Independent Engineer forthwith.

b. Safety measures during Contract Period

i. The Developer shall develop, implement and administer a surveillance and safety program for the Project and the users thereof and its and the Contractor's labor and personnel engaged in the provision of any services under any of the project contracts, including correction of safety violations and deficiencies, and taking of all other actions necessary to provide a safe environment at the Project Site in accordance with Applicable Laws and Good Industry Practice.

ii. Take all responsible precautions for the prevention of accident on or about the Project Site and provide all reasonable assistance and medical aid to accident victims.

iii. Maintain liaison with emergency service providers and seek necessary police assistance on payment of applicable charges for the provisions of such services as are not provided in the normal course or are available only on payment.

iv. The Developer shall keep a copy of every first information report (the "**FIR**") recorded by Police with respect to any accident occurring in the Project. In addition, the Developer shall also collect data for all cases of accidents not recorded by the Police. The information so collected shall be summarized in the form prescribed by the Authority for this purpose. The Developer shall also record the exact location of each accident on the Layout plans and aforesaid data shall be submitted to NMC at the conclusion of every quarter.

v. The Developer shall submit to NMC before 31st (thirty first) May of each year, an annual report (in ten copies) containing, without limitation, a detailed listing and analysis of all accidents of the preceding Accounting Year and the measures taken by the Developer for averting or minimizing such accidents in future.

vi. Once in three months during the construction period and once a year post construction completion, a safety audit shall be carried out by the Safety Consultant to be appointed by the Developer. It shall review and analyze the annual report and accident data of the preceding year, and undertake an inspection of the Project Facilities. The Safety Consultant shall complete the safety audit within a period of 7 (seven) days and submit a Safety Report recommending specific improvements, if any, required to be made in the Project.

6.4.6 Environmental Compliance

a. The Developer shall, at all times, ensure that all aspects of the Project Facilities/ Project Site and processes employed in the Development thereof shall conform with the laws pertaining to environment, health and safety aspects, policies and guidelines related thereto. The Developer shall obtain and maintain from time to time all necessary clearances from empowered Government Agency and for this purpose shall carry out the necessary studies for assessing the impact of the Project on the environment.

b. Overriding powers of the Authority for Environmental Compliance

If in the reasonable opinion of NMC, the Developer is in Material Breach of its obligations under this Agreement, and such breach is causing or likely to cause the Project to violate environmental norms or cause any nuisance to the surrounding areas, NMC may, without prejudice to any of its rights under this Agreement including Termination thereof, by notice requiring the Developer to take reasonable measures immediately for rectifying or removing such hardship or danger, as the case may be.If the Developer fails to rectify or remove such hardship or danger, NMC may, without prejudice to any other rights or remedy available to it under this Agreement, remove such hardship at the risk and costs of the Developer. The cost incurred by NMC in rectifying such default of the Developer, as certified by the Independent Engineer/ NMC, shall be reimbursed by the Developer to NMC within 7 days from the date of receipt of a claim in respect thereof from NMC.

c. NMC shall assist the Developer in obtaining the Applicable Permits for felling/transplantation of trees as per the Schedule 9 annexed with this Agreement for implementation of the Project.

6.5 Obligations relating to Project Agreements

6.5.1 It is expressly agreed that the Developer shall, at all times, be responsible and liable for all its obligations under this Agreement notwithstanding anything contained in the Project Agreements or any other agreement, and no default under any Project Agreement or agreement shall excuse the Developer from its obligations or liability hereunder.

6.5.2 The Developer shall submit to NMC the drafts of all Project Agreements, or any amendments or replacements thereto, for its review and comments, and NMC shall have the right but not the obligation to undertake such review and provide its comments, if any, to the Developer within 21 (twenty one) days of the receipt of such drafts. Within 7 (seven) days of execution of any Project Agreement or amendment thereto, the Developer shall submit to NMC a true copy thereof, duly attested by a Director of the Developer, for its record. For the avoidance of doubt, it is agreed that the review and comments hereunder shall be limited to ensuring compliance with the terms of this Agreement. It is further agreed that no review and/or observation of NMC and/or its failure to review and/or convey its observations on any document shall not

relieve the Developer of its obligations and liabilities under this Agreement in any manner nor shall NMC be liable for the same in any manner whatsoever.

6.5.3 The Developer shall ensure that each of the Project Agreements contains provisions that entitle NMC to step into such agreement, in its sole discretion, in substitution of the Developer in the event of Termination or suspension (the "**Covenant**") of the Project.

6.5.4 Notwithstanding anything to the contrary contained in this Agreement, the Developer agrees and acknowledges that selection or replacement of any Contractor shall be subject to the approval of NMC from national security and public interest perspective, the decision of NMC in this behalf being final, conclusive and binding on the Developer, and undertakes that it shall not give effect to any such selection or contract without prior approval of NMC. For the avoidance of doubt, it is expressly agreed that approval of NMC hereunder shall be limited to national security and public interest perspective, and NMC shall endeavour to convey its decision thereon expeditiously. It is also agreed that NMC shall not be liable in any manner on account of grant or otherwise of such approval and that such approval or denial thereof shall not in any manner absolve the Developer or its Contractors from any liability or obligation under this Agreement.

6.6 Change in Ownership

6.6.1 The Developer shall not undertake or permit any Change in its Ownership.

6.6.2 In case a Special Purpose Vehicle (SPV) is formed by the Developer for the purpose of implementing this Development Rights and fulfilling its obligations under this Agreement, the following is mandated.

a. The Lead Member or sole applicant, shall subscribe to minimum 51% (fifty one per cent) or more of the Equity of the SPV for the entire Development and Sales Period and/or till 100% realization of NMC Revenue Share.

b. The other member of the Consortium (i.e. except the Lead Member), shall subscribe to minimum 21% (twenty one per cent)

or more of Equity of the SPV for the entire Development and Sales Period and/or till 100% realization of NMC Revenue Share.

c. The members of the Consortium shall collectively hold 100% (hundred per cent) of the issued and paid up Equity of the SPV at all times for the entire Development and Sales Period and/or till 100% realization of NMC Revenue Share

6.7 Sole purpose of the Developer

The SPV having been set up for the sole purpose of exercising the rights and observing and performing its obligations and liabilities under this Agreement, the Developer or any of its subsidiaries shall not, except with the previous written consent of NMC, be or become directly or indirectly engaged, concerned or interested in any business other than as envisaged herein.

6.8 No Breach of Obligations

The Developer shall not be considered to be in breach of its obligations under this Agreement nor shall it incur or suffer any liability to the extent, if performance of any of its obligations under this Agreement is affected by or on account of any of the following:

i. Force Majeure Event in accordance with Article 12;

ii. NMC Event Default;

6.9 Taxes and Charges

a. The Developer shall pay in a timely manner, all taxes including Property Tax, Stamp duty & other duties, levies, cess and charges including but not limited to income tax, sales tax, goods and service tax, excise duty, customs duty, octroi and other rate and taxes that may be levied, claimed or demanded from time to time by any Government Agency including any increase therein effected from time to time by any Government Agency, in respect of the Project. Project Cost includes all taxes and duties due including GST on NMC Revenue Share and no payment of any kind shall be made by NMC to the Developer in this regard.

b. New tax regimes/rates as imposed/proposed by the Central/State Government from time to time including but not limited to the

Goods and Services Tax (GST) 2016 and it latest amendments shall be adhered to by the Developer. GST, if applicable on the NMC Revenue Share shall be paid for by the Developer.

c. Pay all charges, taxes, fines, late fees, including the property taxes and other outgoing in relation to the use of Project Site, utilities and services by the Developer or its Contractors and agents during the implementation and operation of the Project such as water supply, sewage disposal, fuel garbage collection and disposal, electric power, gas, telephone and other utilities and ensure avoidance of any disruption thereof due to disconnection or withdrawal of the facility.

d. The Property Tax shall be applicable as per the Section 139 of the MMC Act 1949.

e. The primary responsibility for payment of the Property Tax shall be with the holders of the respective project components.

   For the purpose of the payment of the Property Tax, the Developer shall be considered as the holder of the property on receipt of the full/part Occupancy Certificate for the respective project components.



Article 7. NMC's Obligations

In addition to and not in derogation or substitution of any of its other obligations under this Agreement, NMC shall have the following obligations:

NMC shall:

a) Within 30 days from the Effective Date NMC shall handover to the Developer the peaceful physical possession of the Project Site. If the Upfront Premium is paid by way of cheque, then the Handover shall be done by NMC within a period of the 7 days only on the clearance of the cheque.

b) NMC shall on its reasonable effort basis provide support to the Developer in obtaining timely approvals, permission and authorization for performance for obligations for the Project.

c) Facilitate in a timely manner all such authorization which the Developer may require or is obliged to seek from NMC under this Agreement, in connection with implementation of the Project and the performance of its obligations.

d) Provide authorization for availing of utilities such as power, water, sewerage, telecommunications or any other incidental services / utilities on receipt of request from the Developer to make available such authorization;

e) Approve the Detailed Project Report within 15 days of submission.



Article 8. Representation and Warranties

8.1 Representation and Warranties of Developer

The Developer hereby represents warrants and covenants to NMC for itself that **("Developer Warranties")**

a. The Developer has been incorporated and organized and is validly existing and in good standing, under Applicable Law. The Developer has the corporate power and authority to own, operate and maintain assets and properties and to carry on its business as currently conducted and proposed to be conducted.

b. The copies of the Memorandum of Association and Articles of Association (having attached thereto copies of all such resolutions as per law, to be attached thereto and all amendments made to date) that have been delivered to NMC are true, accurate and complete. All legal and procedural requirements and other formalities concerning such memorandum of association and articles of association have been duly and properly complied with in all material respects.

c. The Developer has the legal right, power and authority to execute, deliver and perform this Agreement. All action on the part of the Developer and all corporate action on the part of the Board of directors of the Developer necessary for the authorization, execution, delivery of and the performance of all obligations of the Developer have been taken.

d. No further consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any Governmental Authority or any other person is required in connection with the execution and delivery of this Agreement.

e. This Agreement is valid and would constitute the binding obligations on the Developer enforceable against the Developer in accordance with their terms. This Agreement is, and when executed be, the valid and binding obligation of the Developer, enforceable against the Developer in accordance with its terms hereof. As of date, as regards the Developer, there is no applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors" rights generally.

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f. The execution and delivery by the Developer of this Agreement and the performance by the Developer of its respective obligations under this Agreement do not and will not:

i. Constitute a breach or a default under any Memorandum of Association and Articles of Association of the Developer.

ii. Result in a breach of, or constitute or default under, any contract to which the Developer is a party or by which it is bound.

iii. Result in a violation or breach of or default under any applicable law or regulation or of any order, judgment or decree of any Governmental Authority to which the Developer is a party or by which the Developer is bound.

g. No order writ, injunction or any decree of any court has been made and no resolution has been passed for the winding up of the Developer for a provisional liquidator to be appointed in respect of the Developer and no petition has been presented and no meeting has convened for the purpose of winding up the Developer. No receiver has been appointed in respect of the Developer or all or any of its assets. The Developer is not insolvent or unable to pay its debts as they fall due.

h. It has the financial standing and capacity to undertake the Project in accordance with the terms of this Agreement;

i. No sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the Development Rights or entering into this Agreement or for influencing or attempting to influence any officer or employee of NMC in connection therewith; and

j. All information provided by the Selected Bidder in response to the Request for Proposal or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects.

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8.2 Representation and Warranties of NMC

NMC represents and warrants to the Developer for itself that **("NMC Warranties"):**

a. It is the urban local body for the city of Nagpur, duly established under and functioning as per the MMC Act, 1949 ("**Act**")and has the power to conduct its business as presently conducted and to enter into this Agreement;

b. It has the full power, authority and legal right to execute, deliver and perform its obligations under this Agreement and has taken all necessary sanctions and approvals and followed all the procedure required to authorize the execution, delivery and performance of this Agreement.

c. The execution, delivery and performance of this Agreement by NMC will not:

   i. Violate any provision of the organizational documents of NMC.

   ii. Conflict with or result in any Material Breach or violation of any of the terms and conditions of, or constitute (or with notice or lapse of time or both constitute) a default under, any agreement to which NMC is a party or by which NMC is bound.

   iii. Violate any court order, judgment, injunction, award, decree or writ against, or binding upon, NMC or its securities, properties or business.

   iv. Violate any law or regulation of India.

8.3 Obligation to Notify Change

In the event that any of the representations or warranties made/ given by a Party ceases to be true or stands changed, the Party who had made such representation are given such warranty shall promptly notify the other of the same.

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Article 9. Disclaimer

9.1 The Developer acknowledges that prior to the execution of this Agreement, the Developer has, after a complete and careful examination, made an independent evaluation of the Site, Request for Proposal, Scope of the Project, Specifications and Standards, Safety Requirements, existing structures, local conditions, physical qualities of ground, subsoil, and geology, and all information provided by NMC or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. NMC makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Developer confirms that it shall have no claim whatsoever against NMC in this regard.

9.2 The Developer acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 9.1 above and hereby acknowledges and agrees that NMC shall not be liable for the same in any manner whatsoever to the Developer and its Associates or any person claiming through or under any of them.

9.3 The Parties agree that any mistake or error in or relating to any of the matters set forth in Clause 9.1 above shall not vitiate this Agreement, or render it voidable.

9.4 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in Clause 9.3 above, that Party shall immediately notify the other Party, specifying the mistake or error; provided, however, that a failure on part of NMC to give any notice pursuant to this Clause 9.4 shall not prejudice the disclaimer of NMC contained in Clause 9.1 and shall not in any manner shift to NMC any risks assumed by the Developer pursuant to this Agreement.

9.5 Except as otherwise provided in this Agreement, all risks relating to the Project shall be borne by the Developer and NMC shall not be liable in any manner for such risks or the consequences thereof.



Article 10. Financial Covenants

10.1 Performance Security

a. The Developer shall submit to the NMC, a Performance Security of Rs. 3,20,00,000/- (Rupees Three Crores Twenty Lacs only) in the form of a Bank Guarantee, in the format as set out in **Schedule 4,** from the list of nationalized Banks issued by NMC which is valid till 90 days after the period of 84 months from Effective Date, in favor of Nagpur Municipal Corporation, payable at Nagpur. The Performance Security shall be extended by the Developer upon direction of NMC in the event of extension by NMC. Developer shall be solely responsible for the renewal of the Bank Guarantee.

b. The Developer shall have the option of submitting the Bank Guarantee for a lesser period than that is stated at "a" above but for minimum one year at a time but it shall be the responsibility of the Developer to renew the same annually. NMC shall not be responsible in any way for its renewal. In case the Bank Guarantee lapses then an equivalent amount shall be withdrawn from the Escrow Account and kept separately as Performance Security. No interest shall be paid on such withdrawal.

c. The Developer shall procure only such Bank Guarantee from the Bank which shall have a claim period of 12 months beyond the validity period as per standard practice.

d. The Developer agrees that the Performance Security shall be kept valid for a period of 84 (eighty) months plus 90 (ninety days). Provided that if the Development Agreement is terminated due to any event other than Developer's Event of Default, then the Performance Security subsisting as of the Termination Date shall, subject to NMC's right to receive amounts, if any, payable by the Developer to NMC under this Agreement, be duly discharged and released to the Developer.

e. The decision of NMC as to any breach/delay having been committed, liability accrued or losses or damage caused or suffered shall be conclusive, absolute and binding on the Developer. The Developer specifically confirms and agrees that no proof of any amount of liability accrued or loss or damages caused or suffered by NMC under this Agreement is required to be provided in connection with any demand made by the NMC to recover such compensation through encashment of the Performance Security under this

Agreement and that no document or any action shall be required other than the NMC's written demand as aforesaid.

f. Notwithstanding anything to the contrary in this Agreement, the Developer shall have the right to seek discharge of the entire Performance Security upon completion of the Development and Sales period, subject to other provisions of this Development Agreement.

10.2 Appropriation of Performance Security

a. Upon occurrence of a Developer Default, the NMC shall, without prejudice to its other rights and remedies hereunder or in law, been entitled to invoke and appropriate the relevant amounts from the Performance Security as Damages for such Developer Default as specified in this Agreement. Upon such invocation and appropriation from the Performance Security by NMC, in part or in full, the Developer shall, within 7 (seven) days thereof, replenish, in case of partial appropriation, the Performance Security to its original level, and in case of appropriation of the entire Performance Security provide a fresh Performance Security, as the case may be, and the Developer shall, within the time so granted, replenish or furnish fresh Performance Security as aforesaid failing which the NMC shall be entitled to terminate this Agreement in accordance with provisions of Article 14 hereof. The provisions of this Article 10.2 shall apply mutatis mutandis to such fresh Performance Security.

b. Release of Performance Security:

i. The Authority shall release the Performance Security forthwith, upon expiry of 120 (one hundred and twenty) days from the Transfer Date, subject however to deductions towards any outstanding amount payable to Authority by Developer in terms hereof.

ii. The Performance Security shall remain in force and effect by the Developer, throughout the Development & Sales Period.

iii. Upon request made by the Developer for release of the Performance Security along with the particulars which establish satisfaction of the requirements, the Authority shall release the Performance Security forthwith.

iv. If the Agreement is terminated due to any event other than an Event of Default by the Developer, the Performance Security shall, subject to the NMC's right to receive or recover amounts, if any, payable by the Developer to NMC under this Agreement, be duly discharged and released to the Developer.

10.3 Payments:

Pursuant to grant of development and sales rights by NMC and in consideration of grant of rights in accordance with this Agreement, the Developer shall pay to NMC the following payments:

a. **Part A:** Disburse the Upfront Premium to NMC in following manner:

   i. Rs 2.00 Crores within 30 days of Effective Date.

   ii. Balance Rs 3.00 Crores by way of 3 equal post-dated cheques within 06 months from Effective Date. corrigendum

b. **Part B**: NMC Revenue Share as quoted in the Financial Offer of Rs.....Crores after adjustment of the Upfront Premium of Rs 5.00 Crores.

c. Payment of the Sales Proceeds shall be done proportionate to the Sales Proceeds after adjusting for the Upfront Premium of Rs. 5.00 Crores.

d. The detailed payment schedule for the amount as stated in clause "b" above is as mentioned below:

S.N.	Sales Proceeds Receipts of the various components of the Commercial Complex	Minimum Percentage of Part B payable to NMC on receipt of corresponding Sale Percentage
1.	20% or 1st year	25%
2.	45% or 2nd year	50%
3.	70% or 3rd year	75%
4.	80% or 4th year	100%

For calculating the Sale Proceeds Receipts mentioned in the table above, the Saleable Area as defined in the approved DPR/approved Plans shall be multiplied by the prevailing Ready Reckoner Rate of the zone for the component of the Project Facility to arrive at the respective amount i.e. 20%, 45%, 70% & 80%

e. The Developer shall have an option of paying the entire NMC part within 4 (four) years from the Effective Date.

f. In case the payment of Part B to NMC exceeds 48 (forty eight months), then the balance amount of Part B payable to NMC shall be escalated by a percentage equivalent the increase in Ready Reckoner Rates from previous year for the Project Site area for the upcoming respective year.

g. 100% of the Lump-sum Financial Offer amount payable to NMC increased proportionately with the inflation percentage as mentioned above shall be payable by the Developer on or prior to the completion of 80% of the projected Sale proceeds as shown in the financial proposal from the Project.

h. 100% of the Lump-sum Financial Offer amount payable to NMC shall be payable by the Developer on or prior to the completion of 80% of the Sale Process from the Project or within 48 months from the Effective Date, whichever is earlier.

i. All transactions of the project shall be routed through a dedicated project Escrow Account to be opened and maintained by the Developer.

j. The payment of NMC Sales Revenue share shall also be through the Escrow Account mechanism. The payment schedule of the NMC Sales Revenue shall be as per the Clause 10.3.d above and it shall be routed to NMC through the exclusive account opened by the Developer for this project to receive the payment from buyer. All the payments from buyer shall be deposited in this Escrow Account only.

k. NMC shall have the right and the Developer hereby expressly grants to NMC the right to recover its Revenue Share and any other payments directly from the Escrow Account and for that purpose the Developer hereby expressly authorizes NMC and hereby gives irrevocable instructions to the Escrow Bank to make payment from the Escrow Account in accordance with the instructions of NMC.

l. The Developer shall be at a liberty to decide the selling price for the various components of the Project depending on the prevailing market sentiments which shall be informed to the NMC Strategic Committee before finalisation of final terms with

the prospective buyer. **However the Selling Rate shall at no times be lower than the prevailing Ready Reckoner Rates for the zone.**

10.4. Sale Proceeds:

a. The Developer has, inter-alia been granted development and sales rights to finance, build, operate and manage market and undertake sales of a Commercial Complex as part of Project Facilities. The Developer shall be permitted to collect sale proceeds, entry/membership fees, parking, advertisements etc from the sale of various components of the Project.

b. Post signing of the Development Agreement with NMC and on issue of Commencement Order from NMC, the Developer can market the project and undertake the Sales of the various components of the said Project.

c. The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement.

d. The Sale Agreement with prospective buyers shall be a tripartite agreement with NMC, Developer and the buyer as the three parties. NMC shall nominate its authorized signatory for the purpose of registration of the tri-party agreement immediately on intimation by the Developer.

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10.5. Revenue from Parking and Advertisement:

a. The planning for the parking at the Project Site shall be strictly in consonance with the UDCPR 2020 (as modified) on the date of approval of the plans.

b. As per the present planning, parking is proposed on the lower & upper basements of the proposed building. It should be the endeavour of the Developer to maximize the parking area.

c. NMC desires that the Developer should plan for development of mechanical parking facilities at the Project Site.

d. The Operation & Maintenance of the parking area shall be with the Developer from the issuance of the Occupancy/Part Occupancy Certificate till complete handover to the buyers/society formed by the buyers'.

e. The Developer can charge fees/O&M charges from the buyers/society till handover for such operation & maintenance. The Developer shall manage its cost for such O&M from its own resources /charges or contribution from the buyers and NMC shall in no way be responsible for any such O&M responsibilities and costs.

f. The Developer shall also identify and enlist the locations & spaces suitable for display of commercial advertisements in consonance with the present planning and in consultation with the Independent Engineer of NMC.

g. The location & spaces shall be compliant with rules and regulations prevalent at that point of time. The area and list shall be submitted and got approved from the competent authority and shall be notified to NMC.

h. The right to lease and earn Advertisement Revenue from the Project shall be with the Developer from the issuance of the Occupancy/Part Occupancy Certificate till completion of the

Development and Sales period and after this it shall be transferred to the society formed by the buyers.

i. The content of advertisements displayed at the approved locations must be in accordance with the guidelines of Advertisement Council of India;

10.6 Revenue from Additional Development:

a. Shall be calculated as per Clause 4.5 of this draft Development Agreement.

b. In case of any additional revenue accruing to the Developer due to any amendment in the DCR or due to introduction of any policy regarding the Transferable Development Rights (TDR) notified by NMC or Government of Maharashtra or Government of India, the calculations of such revenue shall be submitted to the Strategic Committee of NMC and the equitable sharing of the benefit shall be mutually decided.

c. The NMC share of Revenue from the Project shall be deposited by the Developer in the NMC Bank Account within 02 days of receipt of Revenue in the Escrow Account.

10.7. Financing:

10.7.1 Financial Close

a. The Developer shall at its cost, expenses and risk make all or any financing arrangement as would be necessary to implement the Project and achieve the Financial Close within 90 days from the Effective Date. In the event of delay, it shall be entitled to a further period not exceeding 30 (thirty) days, subject to payment of Damages to NMC in a sum calculated at the rate of 0.25% of the Performance Security for each week of delay. In any case, the delay in achieving Financial Close shall not impact the Effective Date.

b. Notwithstanding anything to the contrary contained in this Agreement, in the event that Financial Close does not occur, for any reason whatsoever, within the period set forth in Clause

10.6.a or the extended period provided there under, all rights, privileges, claims and entitlements of the Developer under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Developer, and the Development Agreement shall be deemed to have been terminated.

c. The Developer is not allowed to mortgage, hypothecate or create lien or procure financial assistance for development of the Project Site by creating any third party interest over the Project Land.The Project land, at all times till 100 % realization of NMC Revenue Share and completion of the entire Project shall be in the name and ownership of NMC.

d. The Developer shall, upon occurrence of Financial Close, notify NMC within 7 (seven) days of the Financial Close with a copy of letter received in this regard from the Senior Lenders.

e. Within 7 (seven) days after the execution of the Financing Documents the Developer shall provide true copies of the same duly attested by a Director of Developer.

10.7.2 Termination due to failure to achieve Financial Close

a. Notwithstanding anything to the contrary contained in this Agreement, in the event that the Financial Close does not occur, for any reason, attributable to Developer only , within the period set forth in Clause 10.6.a above, all rights, privileges, claims and entitlements of the Developer under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Developer, and the Development Agreement shall be deemed to have been terminated by mutual agreement of the Parties, without prejudice to any remedies that the NMC shall have under this Agreement and/or under the Applicable Laws.

b. Upon Termination under Clause 10.7.2 (a) above, NMC shall be entitled to encash the Performance Security as liquidated damages. Provided, however, if Financial Close has not occurred solely as result of NMC being in default of any of its obligations under this Agreement it shall, upon Termination, return the Performance Security.

This Clause 10.7 shall be invoked only in case, the Developer plans to implement the Project through external/bank financing and fails to achieve the Financial Closure and the Project implementation is stalled or delayed.

The Funding Plan of the Developer has to be submitted as a part of Conditions Precedent Clause 2.2 a-viii.



Article 11. Liability and Indemnity

11.1 The Developer agrees to indemnify and hold harmless NMC and its Officers and Employees and Advisors (each known as **"NMC Indemnified Party"**) promptly upon demand at any time and from time to time, from and against any or all suits, proceedings, actions, demands, losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursement)and expenses (collectively known as **"Losses"**) to which NMC Indemnified Party may become subject, insofar as such Losses directly arise out of, in any way relate to, or result from:

a. Any mis-statement or any breach of any representation or warranty made by Developer

b. The Failure by Developer to fulfill any agreement, covenant or condition contained in this Agreement, including without limitation the breach of any terms and conditions of this Agreement by any employee or agent or Sub-Contractors of the Developer

c. Any claim or proceeding by any third party against NMC arising out of any act, deed or omission by the Developer;

d. Any defect or deficiency in the provision of services by the Developer;

e. Failure of the Developer to comply with Applicable Laws and Applicable Permits;

f. Payment of taxes required to be made by the Developer in respect of the income or other taxes of the Developer's contractors, suppliers and representatives;

g. Non-payment of amounts due as a result of materials or services furnished to the Developer or any of its Contractors which are payable by the Developer or any of its contractors.

For the avoidance of doubt, indemnification of losses pursuant to this Article shall be made in an amount or amounts sufficient to restore each NMC Indemnified Party to the financial position it would have been in, had the Losses not occurred or caused.

11.2 Any payment made under this Agreement pursuant to an indemnity or claim for breach of any provision of this Agreement shall be net of applicable Taxes.

11.3 Without limiting the generality of the provisions of this Article 11, the Developer shall fully indemnify, hold harmless and defend the NMC Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands, liabilities and damages which NMC Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other intellectual property, proprietary or confidentiality rights with respect to any materials, information, design or process used by the Developer or by the Developer's Contractors in performing the Developer's obligations or in any way incorporated in or related to the Project. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Developer shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure the revocation or suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Project, or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the Developer shall promptly make every reasonable effort to secure for NMC a licence, at no cost to NMC, authorising continued use of the infringing work. If the Developer is unable to secure such licence within a reasonable time, the Developer shall, at its own expense, and without impairing the Specifications and Standards, either replace the affected work, or part, or process thereof with non-infringing work or part or process, or modify the same so that it becomes non-infringing.

11.4 The provisions of this Article 11 shall survive Termination.



Article 12. Force Majeure

12.1 Force Majeure Event

Force Majeure shall means occurrence in India of any event or circumstance or a combination of events or circumstances set out below that materially and adversely affects any Party ("**Affected Party**") in the performance of its obligations in accordance with the terms of this Agreement, but only if and to the extent that such event and circumstances pertains to the Project and has a Material Adverse Effect on the operations on the Project Site, which is beyond the Affected Party's reasonable control, and/or the effects of which the Affected Party could not have prevented through Good Industry Practice or, through reasonable skill and care, including through the expenditure of reasonable sums of money;

a. Natural Force Majeure

i. act of God, earthquake, flood, inundation and landslide.

ii. Storm, tempest, hurricane, cyclone, lighting, thunder or other extreme atmospheric disturbances.

iii. fire caused by reasons not attributable to the Developer or any of its employees, Sub-Contractors or agent appointed by the Developer for purpose of the Project;

iv. Pandemics and Epidemics.

b. **Indirect Political Force Majeure**

i. Acts of terrorism;

ii. Industry wide or state-wide Strikes, labor disruptions or any other industrial disturbances not arising on account of the acts or omissions of the Developer or the Contractor;

iii. War, hostilities (whether declared or not), invasion, act of foreign enemy, rebellion, riots, weapon conflict or military actions, civil war, ionizing radiation, contamination by radioactivity from nuclear fuel, any nuclear waste, radioactive toxic explosion, volcanic eruption,

iv. Any failure or delay of Sub-Contractor caused by the event mentioned in the sub clause 12.1 (b) for which no offsetting compensation is payable to the Developer by or on behalf of the Contractor.

v. Early Termination of this Agreement by NMC for reason of national emergency or national security.

vi. The discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection;

c. **Direct Political Force Majeure**

i. Action of Government Agency having Material Adverse Effect including but not limited to

1. Acts of expropriation, compulsory acquisition or takeover by the Government Agency of the Project/Project Site or any part thereof or of the Developer's or the Contractor's right in relation to the Project when there exists no default by the Developer, and

2. Any unlawful, unauthorized or without jurisdiction refusal to issue or to renew or the revocation of any Applicable Permits, in each case, for reason other than Developer's or its Sub-Contractor's breach or failure in complying with the Project Requirements, Applicable laws, Applicable Permits, any judgment or order of a Governmental Agency or of any contract by which the Developer or its Contractor as the case may be inbound.

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12.2 Exclusion from Force Majeure Event

Force Majeure shall expressly not include the following conditions, except to the extent resulting from a Force Majeure:

a. Unavailability, late delivery or changes in cost of plant, machinery, equipment, material, spare parts or consumable for the Project;

b. A delay in the performance of any Contractor or Supplier of the Developer;

c. An indirect effect on the operations of the project;

d. Non-performance resulting from normal wear and tear typically experienced in a Project of this kind; and non-performance caused by, or connected with, the non-conforming party's (a) negligent or intentional acts, errors or omissions (b) failure to comply with any of the Laws of India, or (c) breach of, or default under this agreement.

e. Failure to follow Good Industry Practices.

12.3 Notice of Force Majeure Event

a. As soon as practicable and in any case within 7 days of the date of occurrence of a Force Majeure Event or the date of knowledge thereof, the Affected Party shall notify the other party of the same setting out, inter alia, the following in reasonable detail:

   i. The nature and extent of a Force Majeure Event;

   ii. The estimated Force Majeure Period;

   iii. The estimated period of impact of such Force Majeure;

   iv. The nature of an extent to which, performance of any of its obligations under this Agreement is affected by the Force Majeure Event;

   v. The measure which the Affected Party has taken or proposes to take to alleviate/mitigate the impact of the

Force Majeure Event and to resume performance of such of its obligations affected thereby.

vi. Any other relevant information concerning the Force Majeure Event, and/or the right and obligations of the Parties under this Agreement.

b. As soon as practical and in any case within 5 days of notification by the Affected Party in accordance with the preceding clause (a), the parties shall, if applicable, meet and hold discussion in good faith and where necessary conduct physical inspection/survey of the Project Site and the Project Facilities in order to:

i. Assess the impact of the underlying Force Majeure Event,

ii. To determine the likely duration of Force Majeure Period and,

ii. To formulate damage mitigation measures and steps to be undertaken by the Parties for resumption of obligations, the performance of which shall have been affected by the underlying Force Majeure Event.

c. The Affected Party shall during the Force Majeure Period provide to the other Party regular (not less than weekly) reports concerning the matters set out in the preceding clause (b) as also any information, details or document, which the other Party may reasonable require.

12.4 Performance of Obligations

If the Affected Party is rendered wholly or partially unable to perform any of its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such obligations to the extent it is unable to perform the same on account of such Force Majeure Event provided that:

a. Due notice of the Force Majeure Event has been given as required by the preceding Article 12.3;

b. The excuse from performance shall be of no greater scope and of no longer duration than is necessitated by the impact period of such Force Majeure Event.

c. The Affected Party has taken all reasonable efforts to avoid, prevent, mitigate and limit damage, if any, caused or is likely to be caused to the Project Facilities / as result of the Force Majeure Event and to restore the Project Facilities, in accordance with the Good Industry Practice and its relative obligations under this Agreement;

d. When the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party a written notice to that effect and shall promptly resume performance of its obligations hereunder, the non-issue of such notice being no excuse for any delay for resuming such performance;

e. The Affected Party shall continue to perform such of its obligations which are not affected by the Force Majeure Event and which are capable for being performed in accordance with this Agreement; and

f. Any insurance proceed received shall be, subject to the provisions of Financing Documents, entirely applied to repair, replace or restore the assets damaged on account of the Force Majeure Event, or in accordance with Good Industry Practice.

12.5 Effect of Force Majeure Event on the Development and Sales Rights

a. If any Force Majeure Event occurs, before COD, the Development and Sales Period and the dates set forth in the Project Completion Schedule shall be extended by a period equal in length to the duration for which such Force Majeure Event subsists; and

b. If any Force Majeure Event occurs after COD, if the Maintenance and Sales is suspended, the Development and Sales Period shall be extended by a period equal in length to the period during which such Operation and Maintenance is suspended.

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12.6 Allocation of costs arising out of Force Majeure

Upon occurrence of any Force Majeure Event, the Parties shall bear their respective costs and no Party shall be required to pay to the other Party any costs thereof. For the avoidance of doubt, Force Majeure costs may include interest payments on debt, O&M Expenses, any increase in the cost of Construction Works on account of inflation and all other costs directly attributable to the Force Majeure Event.

12.7 Termination Notice for Force Majeure Event

If a Force Majeure Event subsists for a period of 180 (one hundred and-eighty) days or more within a continuous period of 365 (three hundred and sixty five) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days' time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

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Article 13. Event of Default

Event of Default shall mean either Developer Event of Default or the NMC Event of Default or both as the context may require.

13.1 Developer's Event of Default

Any of the following events shall constitute an Event of Default by the Developer ("**Developers Event of Default**") unless such event has occurred as a result of one or more reasons set out under No Breach of Obligations mentioned under Clause 6.8, and the Developer fails to cure the default within the cure period specified therein ("**Cure Period**"); or if no Cure Period is specified, then within a period of 30 days.

Cure Period shall mean the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and shall:

a. Commence from the date on which a notice is delivered by one Party to the other Party asking the latter to cure the breach or default specified in such notice;

b. Not relieve any Party from liability to pay Damages or compensation under the provisions of this Agreement; and

c. Not in any way be extended by any period of Suspension under this Agreement; provided that if the cure of any breach by the Developer requires any reasonable action by the Developer that must be approved by NMC or its Independent Engineer hereunder, the applicable Cure Period shall be extended by the period taken by NMC / its Independent Engineer to accord their approval

The defaults referred herein shall include:

a. The Developer does not fulfill any of its obligations as per Article 6 of this draft Development Agreement.

b. Failure to obtain and maintain the Applicable Permits and clearances from concerned authorities under Applicable Laws and ensure legal compliance with labor laws and other statues applicable.

c. The Developer has failed to adhere to any construction milestone in Project Completion Schedule or complete the construction of the Project Facilities on or before Scheduled Project Completion Date and extension of time period granted thereof;

d. The Developer has failed to pay the Upfront Premium as per the payment schedule.

e. The Developer has failed to make any Sales Revenue Share payment due to NMC from the Revenue earned from the Project and more than 30 days have elapsed since the default of this payment.

f. The Performance Security has been en-cashed and the Developer has failed to place or replenish the amount of Performance Security within the time period mentioned in Article 10.1.

g. The Developer does not construct and operate any of the items of Project Facilities mentioned in the Scope of work;

h. The Developer has failed to cure the default within the cure period and failed to make any payment towards Damages within the period specified in this Agreement;

i. The Developer has failed to submit and take approval of a Detailed Project Report within 75 days of the Effective Date.

j. The Development of the Project is not in conformity with the approved construction plan and Detailed Project Report (DPR) approved by NMC including safety requirements.

k. The development of the Project does not adhere to the Environmental Impact Assessment (EIA) Study- Schedule 2.

l. The Developer is found interfering or causing damages to the properties of NMC or others during the development.

m. The Developer has encroached upon any adjoining land, road, pathway, footpath etc. of NMC/Government of India/Government of Maharashtra/Government Agency/private party in any manner whatsoever.

n. The Developer creates any Encumbrance on the Project Land in breach of this Agreement;

o. A Change in Ownership has occurred in breach of the provisions of Clause 6.6; or the Equity holding of the Developer is not in line with Clause 6.6.2.

p. Change in management control of the Developer which according to the NMC may have Material Adverse Effect towards the completion or operation of the Project.

q. Any representation made or warranty given by the Developer under this Agreement is found to be false or misleading;

r. The Developer is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Developer or for the whole or material part of its assets;

s. A resolution for winding up of Developer has been passed or Any petition for winding up of the Developer has been admitted and liquidator or provisional liquidator has been appointed or the Developer has been ordered to be wound up by Court of competent jurisdiction.

t. The Developer abandons the Project manifests intention to abandon the construction or operation of the Project without the prior written consent of NMC;

u. The Developer has unlawfully repudiated this Agreement or has other wise expressed an intention not to be bound by this Agreement or commits any breach which has caused a Material Adverse Effect;

v. The Developer has failed to fulfil any obligation, for which failure Termination has been specified in this Agreement; or

w. The Developer has committed any material breach or is likely to cause a material breach having Material Adverse Effect on the Project.

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13.2 NMC Event of Default

Any of the following events shall constitute an Event of Default by NMC ("**NMC Event of Default**") when not caused by a Developer Event of Default or Force Majeure Event, and NMC fails to cure the default within the cure period specified therein; or if no cure period is specified, then within a period of 30 days.

a) The Project Site has not been handed over to the Developer within 30 days from the Effective Date; However handing over of minor portions to the extent of 20% of project area, if delayed due to unavoidable reasons beyond the control of NMC, shall not be treated as a default.

b) NMC has made breach of any of its obligations under this Agreement and has failed to rectify the breach within 45 (forty-five) days of receipt of notice thereof issued by the Developer;



Article 14. Termination

14.1 Termination Procedure

A. For Developer's Event of Default

i. Without prejudice to any other right or remedy which NMC may have in respect thereof under this Agreement, upon the occurrences of a Developers Event of Default, NMC shall be entitled to terminate this Agreement in the manner as set out under the subsequent sub clauses.

ii. If NMC decides to terminate this Agreement pursuant to preceding clause (i), it shall issue Notice of Intent to terminate the Development Agreement. Within 30 (thirty) days of receipt of the Notice of Intent to Terminate, the Developer shall submit to NMC in sufficient detail, the manner in which it proposes to cure the underlying Event of Default, if any ("**Developer's Proposal to Rectify**"). In case of non-submission of the Developer's Proposal to Rectify within the said period of 30 days, NMC shall be entitled to terminate this Agreement by issuing Termination Notice and appropriate the Performance Security, if subsisting.

iii. If the Developers Proposal to rectify is submitted within the period stipulated thereof, the Developer shall have further period of 45 days from the date of submission of the Proposal to rectify to remedy/cure the underlying Event of Default within such further period allowed. If, however the Developer fails to remedy / cure the underlying Event of Default or the factors causing the Event of Default within such further period allowed, NMC shall be entitled to terminate this Agreement, by issue of Termination Notice and appropriate the Performance/Operation Security. For the avoidance of doubt, the Authority, at its sole discretion, can reject the Developer Proposal to rectify if it feels that it is not adequate to cure the Event of Default or prevent the Event of Default from reoccurring.

B. For NMC Event of Default

i. Without prejudice to any other right or remedy which the Developer may have in respect thereof under this Agreement, upon the occurrences of NMC Event of Default, Developer shall be entitled to terminate this Agreement by issuing Termination Notice.

ii. If the Developer decides terminate this Agreement pursuant to preceding clause (i) it shall issue Notice of Intent to Terminate Development Agreement. Within 30 days of receipt of the Notice of Intent to Terminate, the NMC shall forward to the Developer its proposal to remedy/cure the underlying Event of Default (the "**NMC Proposal to Rectify**"). In case of non-submission of NMC Proposal to Rectify within the period stipulated hereof, the Developer shall be entitled to terminate this Agreement by issuing Termination Notice.

iii. If NMC Proposal to Rectify is forwarded to the Developer submitted within the period stipulated thereof, the NMC shall have further period of 45 days from the date of submission of NMC Proposal to Rectify to remedy/cure the underlying Event of Default within such further period allowed. If, however the Authority fails to remedy / cure the underlying Event of Default within such further period allowed, Developer shall be entitled to terminate this Agreement by issuing Termination Notice.

14.2 Termination Notice

If any Party entitled to issue a Termination Notice, decides to terminate this Agreement pursuant to the preceding Article 14.1, it shall issue Termination Notice setting out;

a. In sufficient detail the underlying Force Majeure Event / Event of Default as applicable;

b. The Termination Date which shall be a date occurring not earlier than 30 days from the date of Termination Notice;

c. The estimated Termination Payment including the details of computation thereof and;

d. Any other relevant information.

14.3 Obligations of Parties

Following the issue of Termination Notice by either Party, the Parties shall promptly take all such steps as may be necessary or required to ensure that;

a. Until Termination the Parties shall, to the fullest extent possible, discharge the irrespective obligations so as to maintain the continued operation of the Project Facilities;

b. The Termination Payment, if any, payable by NMC in accordance with the Clause 14.5 shall be paid to the Developer on the Termination Date and

c. The Project Facilities are handed back to NMC as instructed by NMC, by the Developer on the Termination Date free from any encumbrance along with any payment that may be due by Developer to NMC.

14.4 Withdrawal of Termination Notice

Notwithstanding anything inconsistent contained in this Agreement, if the Party who has been served with the Termination Notice cures the underlying Event of Default to the satisfaction of the other Party at any time before the Termination occurs, the Termination Notice shall be withdrawn by the Party which had issued the same.

14.5 Termination Payments

14.5.1 Payment in case of Force Majeure Event

a. If Termination is due to a Force Majeure Event, described under Article 12, no Termination Payment shall be made by NMC to the Developer but, the Developer shall be entitled to receive and appropriate the proceeds of any amounts under Insurance Cover.

14.5.2 Payment in case of Developer's Event of Default

a. Upon Termination on account of a Developer Event of Default after COD, Developer shall pay to the NMC, by way of Termination Payment, an amount equal to 25% of the balance amount payable to NMC as quoted by the Developer in its Financial Offer. In addition to this the Upfront Premium paid earlier shall also not be returned. The Developer shall be entitled for the 75% (value of the work done) payment for the work done by it and which has been certified by the Independent Engineer from time to time. The balance amount payable to the Developer shall be adjusted with the amount it has received from the Sales Proceeds and other revenues such as parking, advertisement, additional development etc.

b. For the avoidance of doubt, the Developer hereby acknowledges that no Termination Payment shall be due or payable on account of a Developer's Event of Default occurring prior to COD.

c. Upon Termination of this Agreement on account of Developer Event of Default the Performance Security shall be en-cashed by NMC. The Developer expressly agrees that Termination Payment under this Clause 14.5 shall constitute a full and final settlement of all claims of the Developer on account of Termination of this Agreement for any reason whatsoever and that the Developer or any shareholder thereof shall not have any further right or claim under any law, treaty, convention, contract or otherwise.

14.5.3 Payment in case of NMC Event of Default

a. Upon Termination of this Agreement on account of the Authority Event of Default, the Developer shall receive from the Authority, the Upfront Payment made.

b. NMC shall also release the Performance Guarantee Security, of subsisting value.

c. Payment for the construction done equivalent to 90% value of the work done. The amount payable to the Developer shall be adjusted with the amount it has received from the Sales Proceeds and other revenues such as parking, advertisement, additional development etc.

d. The raw material, or any other goods brought on the Project Site for the purpose of Project and lying at Project Site can be taken by the Developer and no separate cost shall be paid by NMC for any such raw material or goods etc. However any constructed part, fixed parts/fittings etc shall not be allowed to be removed and taken away by the Developer. The Site Office and its furniture and fittings shall be the property of NMC. The Ticketing counter on the fourth floor shall be the property of NMC.



14.6 Rights of the Authority on Termination

Upon Termination of this Agreement for any reason whatsoever, NMC shall have the power and authority to:

a. Enter upon the Site and take exclusive possession and control of Project Site and Project Facilities forthwith;

b. Prohibit the Developer and any Person claiming through or under the Developer from entering upon the Project Site and Project Facilities and dealing with or any part thereof.

c. Revoke development and sales rights under this Development Agreement, if any pending to be given to the Developer;

d. All other movable or detachable assets, including plant, machinery, construction equipment, raw material, stocks etc lying on the Site and which form part of the Project Assets shall become property of NMC on the date this Development Agreement is terminated. Equipment/Machinery deployed by the Developer for the construction purposes shall be allowed to be removed from the Project Site within a stipulated period of time.

14.7 Liability for other losses, damages etc.

a. Save and except as expressly provided in this Article 14, neither Party hereto shall be liable in any manner whatsoever to the other Party is respect of any loss, damage, cost, expense, claims, demands and proceeding relating to or arising out of occurrence or existence of any Force Majeure Event.

b. Notwithstanding anything contained in this Agreement, NMC shall not, as a consequence of Termination or otherwise, have any obligation whatsoever including but not limited to obligations as to compensation for loss of employment, continuance or regularization of employment, absorption or re-employment on any ground, in relation to any person in the employment of or engaged by Developer in connection with the Project, and the handover of the Project Facilities by Developer to NMC shall be free from any such obligation.



14.8 Survival of Right of Parties

Termination pursuant to any of the provisions of this Agreement shall be without prejudice to accrued right of either Party including its rights to claim and recover money damages and other rights and remedies which it may have in law or contract. The rights and obligations of either Party under this Agreement, including without limitation those relating to the Termination Payment, shall survive the Termination but only to the extent such survival is necessary for giving effect to such rights and obligations.

14.9 Foreclosure

a. At any time should the parties mutually decide to abandon or reduce the scope of work for any reason whatsoever and hence not require the whole or any part of the works to be carried out under the Agreement, either of the parties shall give notice in writing to that effect to the other party and the other party shall act accordingly in the matter within 30 days.

b. On foreclosure of the Development and Sales Period by NMC, NMC shall return to the Developer the amount invested by the Developer in the Project till such Foreclosure.

c. For valuation of such investment by the Developer, valuation shall be undertaken by the Developer through three reputed and registered Valuers. (Registered with Institution of Valuers) and based on this Valuation Report the Investment Value shall be finalized. In case NMC has received more than 80% of its Revenue Share from the sale of the project components in such a scenario NMC shall withhold 1.5 times of the balance receivable Revenue Share from the amount due to the Developer.



14.10 NMC Payment on Efflux of Time

After Efflux of Time, if any part of the Revenue Share from the sale of the project components remain unpaid to NMC then:

a. Developer can pay NMC the balance amount from its own resources and NMC shall then transfer all Sales Rights to the Developer.

Or

b. If NMC has received more than 80% of its Revenue Share from the sale of the project components in such a scenario NMC shall withhold 1.5 times of the balance receivable Revenue Share from the amount due to the Developer and then transfer all Sales Rights to the Developer



Article 15. Suspension of Developer's Rights

15.1 Suspension upon Developer Event of Default

Upon occurrence of a Developer Event of Default, NMC shall, without prejudice to its other rights and remedies under this Agreement including its rights of Termination, (i) suspend all rights of the Developer under this Agreement and (ii) be entitled to exercise such rights itself and perform the obligations hereunder or authorize any other person to exercise or perform the same on its behalf during such suspension (the "**Suspension**"). Suspension hereunder shall be effective forthwith upon issue of notice by NMC to the Developer and may extend up to a period not exceeding 180 (one hundred and eighty) days from the date of issue of such notice; provided that upon written request from the Developer and the Lenders' representative, NMC shall extend the aforesaid period of 180 (one hundred and eighty) days by a further period not exceeding 90 (ninety) days.

15.2 Authority to act on behalf of Developer

a. During the period of Suspension, NMC shall be entitled to make withdrawals from the Escrow Account for meeting the costs incurred by it for remedying and rectifying the cause of Suspension, and thereafter for defraying the expenses.

b. During the period of Suspension hereunder, all rights and liabilities vested in the Developer in accordance with the provisions of this Agreement shall continue to vest therein and all things done or actions taken, including expenditure incurred by NMC for discharging the obligations of the Developer under and in accordance with this Agreement and the Project Agreements, shall be deemed to have been done or taken for and on behalf of the Developer and the Developer undertakes to indemnify NMC for all costs incurred during such period. The Developer hereby licenses and sub-licenses respectively, NMC or any other person authorized by it under Clause 15.1 to use during Suspension, all Intellectual Property belonging to or licensed to the Developer with respect to the Project and its design, engineering, construction, Operation and Maintenance, and which is used or created by the Developer in performing its obligations under the Agreement.

15.3 Revocation of Suspension

a. In the event that the Developer shall have rectified or removed the cause of Suspension within a period not exceeding 90 (ninety) days from the date of Suspension, NMC shall revoke the Suspension forthwith and restore all rights of the Developer under this Agreement. For the avoidance of doubt, the Parties expressly agree that NMC may, in its discretion, revoke the Suspension at any time, whether or not the cause of Suspension has been rectified or removed hereunder.

b. Upon the Developer having cured the Developer Event of Default within a period not exceeding 90 (ninety) days from the date of Suspension, NMC shall revoke the Suspension forthwith and restore all rights of the Developer under this Agreement.

15.4 Termination

a. At any time during the period of Suspension under this Article 15, the Developer may by notice require NMC to revoke the Suspension and issue a Termination Notice. NMC shall, within 15 (fifteen) days of receipt of such notice, terminate this Agreement under and in accordance with Article 14.

b. Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within 180 (one hundred and eighty) days from the date of Suspension hereunder or within the extended period, if any, set forth in Clause 15.1, the Development Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all the provisions of this Agreement shall apply, mutatis mutandis, to such Termination as if a Termination Notice had been issued by the Authority upon occurrence of a Developer Event of Default.



Article 16. Transfer Procedure

a. The Project Facilities shall be handed over and transferred to the buyers on the signing of the Sale Agreement and disbursement of the sale price by the buyers. Unsold project components shall be transferred to NMC on Transfer Date at a value calculated as the construction cost plus interest (prevailing SBI Bank Rate+2%). The final decision regarding the transfer value of unsold project components shall be taken by the Strategic Committee.

b. The Developer shall initiate the process of transfer of the Project Assets created after making full repairs, corrections, rectifications etc., as may be required, in good and working condition at least 90 days before the date on which this Agreement shall end or is terminated.

c. The Developer is bound to keep the structures standing on the land as it is, and on the Termination of the Agreement handover the same in good condition, i.e. to maintain the same during the stipulated period, subject only to the changes caused by reasonable wear and tear or irresistible force, and to allow the NMC and his agents, at all reasonable times during the term, to enter upon the property and inspect the condition thereof and give or leave notice of any defect in such condition; and, when such defect has been caused by any act or default on the part of the Developer, his servants or agents, the Developer is bound to make it good within three months after such notice has been given or left;

d. The Developer shall not demolish any part or entire structure at any point of time, he shall not remove any fixtures which are part of the structures but not permanently attached to the structure, any lamp post or fittings erected or attached to structure as part of design shall not be removed by Developer post termination or completion of agreement.

e. The Developer undertakes to initiate the process of transfer and handover upon Termination of this Agreement or upon expiry of the Development Agreement or otherwise, for which no separate notice is necessary. In case of failure to do so, for every day under such circumstances, the Developer shall pay a sum equal to Rs.5.00 Lakhs per day towards Damages or unauthorized occupation of Project Site.



f. The Developer shall bear all cost and comply with all other requirements as may be prescribed or required under Applicable Laws for completing the divestment and assignment of all rights, title and interest of the Developer in the Project and Project Facilities free from all Encumbrances, absolutely unto NMC or to its nominee. Notwithstanding above, it shall be within the right of the NMC to enter into the premises and take over the possession in the case of breach of any conditions of this Article 16, at the end of agreement.

g. The Parties shall cooperate on a best effort basis and take all necessary measures, in good faith, to achieve a smooth transfer of the Project in accordance with the provisions of this Agreement so as to protect the safety of and avoid undue delay or inconvenience, other members of the public or the lawful occupiers of any part of the Site.

h. The Developer shall hand over the Maintenance Manual and the As-Built Drawings at the end of the 5th year of the Development and Sales period and in case of default in the same, the Performance Security shall be appropriated by NMC.

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Article 17. Change in Law

17.1 Change in law shall mean the occurrence or coming into force of any of the following, after the Effective Date:

a. the enactment of any new Indian Law;

b. The repeal, modification or re-enactment of any existing Indian law including Rules and Regulations there under;

c. A change in the interpretation or application of any Indian law by a court of record.

d. The commencement of any Indian law which has not entered in effect until the date of this Agreement.

Provided that change in Law shall not include:

i. Coming into effect, after the Effective Date, of any provision or statute which is already in place as of the Effective Date,

ii. Any new law or any change in the existing law under the active consideration of or in the contemplation of the GoI or any Government Agency as of the Effective Date which is matter of public knowledge,

iii. Any change in the rate of Taxes

17.2 Subject to Change in Law resulting in Material Adverse Effect and subject to the Developer taking necessary measures to mitigate the impact or likely impact of Change in Law on the Project, if as a consequence of a Change in law, the Developer is obliged to incur Additional Costs then, the Parties may by mutual consent modify the term of the Agreement in order to suitably compensate the Developer towards Additional Costs.

17.3 Upon occurrence of a change in Law, the Developer may, notify NMC of the following:

a. the nature and an impact of Change in Law on the Project

b. in sufficient detail, the estimate of the additional cost likely to be incurred by the Developer on account of Change in Law

c. The measures, which the Developer has taken or proposed to take to mitigate the impact of change in Law, including in particular, minimize the additional cost.

d. The relief sought by the Developer.

17.4 NMC shall not incur any additional cost for compensating the Developer in case of Change in Law.

17.5 In-case of conflict between Central Government and State Government law for the same issue/clause, the State Government law shall prevail.



Article 18. Dispute Resolution

18.1 Dispute Resolution Procedure

a. If any difference of opinion or dispute of whatever nature arises between the Parties, out of or in relation to this Agreement, (the "**Dispute**") shall in the first instance be attempted to be resolved amicably in accordance with the procedure set forth in clause (b) below and if not resolved amicably in accordance with clause (b), then the procedure set forth in clause (c) & (d) below shall apply.

b. The Parties may refer such Dispute to the Chief Engineer of NMC or a similar level officer appointed by the Commissioner of NMC, for settlement of dispute amicably. Upon such reference, the Parties shall meet at the earliest mutual convenience and in any event within 15 days of such reference to discuss and attempt to amicably resolve the Dispute. If the Dispute is not amicably resolved within 15 (fifteen) days of such meeting between the two, either party may refer the Dispute to the Commissioner.

c. If such dispute is not amicably resolved even after the meeting with the Commissioner, then it shall be decided by reference to arbitration to a Board of Arbitrators comprising one nominee each of the Authority, Developer and the Lenders' Representative. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "Rules") or such other rules as may be mutually agreed by the Parties, and shall be subject to provisions of the Arbitration and Conciliation Act, 1996.

d. The Arbitrators shall issue a reasoned award and such award shall be final and binding on the Parties. The venue of arbitration shall be Nagpur.
The language of arbitration shall be English and shall be subject to the jurisdiction of the Court at Nagpur.

18.2 Performance during Dispute

Pending the submission of and/or decision on a Dispute and until the dispute resolution is declared; the Parties shall continue to perform their respective obligations under this Agreement without prejudice to a final adjustment in accordance with such award and rights and obligations of the Parties shall remain in full force and effect.

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Article 19.Post Construction Sales Obligations

a. The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement-obligations.

b. Intimate NMC regarding each booking.

c. Every booking /Agreement to Sale of the project components should be registered. NMC shall bear no liability towards any unregistered bookings/advances taken by the Developer, if in future the same is not honoured by the Developer and disputes arise.

d. The Sale Agreement with prospective buyers shall be a tripartite agreement with NMC, Developer and the buyer as the three parties. NMC shall nominate its authorized signatory for the purpose of registration of the tri-party agreement immediately on intimation by the Developer.

e. The Developer can facilitate for signing of either Sale Deed or Deed of Apartment depending on its profitability but at no time shall such signing is against any prevailing law and NMC shall bear no liability in this regard.

f. The buyer shall be entitled to an undivided share of the Project land in proportion to the area of the Project component purchased by it and this would be incorporated in the Sale Deed/ Deed of Apartment or any such ownership document that would be registered by NMC in the name of the buyer through the Developer. The Developer shall act as a facilitator to register the document with Registrar on behalf of NMC.

g. In case the Developer intends to lease out the facility/any portion of it to any third party, then the Developer shall need to purchase and get such portion of the facility registered in its own name by appropriate lawful mechanism before leasing out the given space. Deed of Apartment and/or any such legal document can be executed by the Developer in its own favour after payment of requisite NMC Revenue Share from such sales as if it has been sold at commercial rates.



Article 20.Miscellaneous

20.1 Assignment and Charges

a. The Developer shall not assign in favor of any Person this Agreement or the right, benefits and obligations hereunder save and except with prior consent of the NMC.

b. The Developer shall not create nor shall permit any Encumbrance over the Project Land and the constructed Project Facilities.

c. The Developer cannot create the mortgage of the Project land and facilities under any circumstances.

20.2 Accounts

A. Collection & Handling

i. The Developer shall be liable for the loss of any Sales Proceeds collected by it or its agents or servants whether by fraud, misappropriation, theft, accident, event of Force Majeure or any other event or circumstance whatsoever.

ii. The Developer shall put in place, prior to the receipt of any of the Sales Proceeds, security measures necessary for handling, deposit and protection of Sales Proceeds from loss, theft or destruction. Notwithstanding such security measures (i) all money being held by the Developer shall at all times be insured against loss due to but Not limited to theft, loss, fire and natural disasters and (ii) the Developer shall remain liable for timely payment of Revenue Share to NMC in accordance with the terms of this Agreement.

B. Monthly Sales Statement

i. During the Development and Sales Period, the Developer shall furnish to the NMC, within 7 (seven) days of completion of each month, a statement of Sales.

ii. The Developer shall also furnish to the NMC its quarterly GST Returns and a certificate from its Statutory Auditor indicating the Expenditure incurred on the Project and Revenue earned from sales from this Project and such other information as NMC may

reasonably require, at specified intervals, in discharge of its statutory functions.

C. Books of Account

i. The Developer shall maintain books of accounts recording all its receipts (including all revenues derived/collected by it from or on account of the Project and/ or its use, income, expenditure, payments (including payments into the NMC Account), assets and liabilities, in accordance with this Agreement, Good Industry Practice, Applicable Laws and Applicable Permits.

ii. The Developer shall provide 2 (two) copies of its Balance Sheet, Cash Flow Statement and Profit and Loss Account, along with a report thereon by its Statutory Auditor, within 90 (ninety) days of the close of the Accounting Year to which they pertain and such audited accounts, save and except where expressly provided to the contrary, shall form the basis of payments by either Party under this Agreement.

iii. NMC shall have the right to inspect the records of the Developer during office hours and require copies of relevant extracts of books of accounts, duly certified by the Statutory Auditor, to be provided to NMC for verification of basis of payments, and in the event of any discrepancy or error being found, the same shall be rectified and such rectified account shall form the basis of payments by either Party under this Agreement.

iv. On or before the thirty-first day of May each Year, the Developer shall provide to NMC, for the preceding Accounting Year, a statement duly audited by its Statutory Auditors giving summarized information on (a) Sales Revenue received and other revenues derived from the Project, (b) the traffic count for each category of persons using the commercial parking facility and liable for payment of User Fee thereof and (c) such other information as NMC may reasonably require.

20.3 Governing Law and Jurisdiction

This Agreement shall be Govern by Indian Laws. The Courts at Nagpur shall have jurisdiction over all matters arising out or relating to this Agreement.

20.4 Waiver

a. Waiver by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement:

   i. Shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions or obligations under this Agreement;

   ii. Shall not be effective unless it is in writing and execute by a duly authorized representative of such Party; and

   iii. Shall not affect the validity or enforceability in this Agreement in any manner.

b. Neither in failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation hereunder nor time or other indulgence granted by a Party of the other Party shall be treated or deemed as waiver / breach of any terms, conditions and provisions of this Agreement.

20.5 Amendment

This Agreement and the Schedules together constitute a complete and exclusive understanding of the terms of the Agreement between the parties on the subject hereof and no amendment or modification hereto shall be valid and effective unless agreed to by all the Parties hereto and provided in writing.

20.6 Notices

All notices of communications required or otherwise to be given hereunder shall be in the English Language and sent by facsimile and email/s followed by a signed original by prepaid air or speed post class mail addressed to the addressee at the Registered Office or the Principal place of business, as the case may be, as set forth below or at such other place as may be designated in writing from time to time hereafter for the Parties for the receipt of such notices or communications:



To NMC:
Nagpur Municipal Corporation
Civil Lines, Mahanagar Palika Marg,
Nagpur.
Kind Attention: [please insert]
Phone: [please insert]
Fax: [please insert]
Email: [please insert]

To Developer:
[please insert name]
[please insert Address]
Kind Attention: [please insert]
Phone: [please insert]
Fax: [please insert]
Email: [please insert]

20.7 Severability

If for any reason whatsoever any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties shall negotiate in good faith with a view to agreeing upon one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable. Provided failure to agree upon any such provisions shall not be subject to Dispute Resolution under this Agreement or otherwise.

20.8 Language

a. All notices require to be given under this Agreement and all communications, documentation and proceeding which are in any way relevant to this Agreement shall be in writing and in English Language.

b. Notices or instructions issued in Marathi shall also prevail, the Developer shall interpret accordingly. In case of any ambiguity the Developer can seek written clarifications from NMC.

20.9 Exclusion of Implied Warranties

This Agreement expressly excludes any warranty, condition or other undertaking implied by law or by custom or otherwise arising out of any other agreement between the Parties and any other representation by any Part not contained in a binding legal agreement executed by the Parties.

20.10 No Partnership

Nothing contained in this agreement shall be construed or interpreted as constituting a partnership between the Parties. Neither Party shall have any authority to bind the other in any manner whatsoever.

20.11 Interest on delayed Payments and Right of Set Off

Any sum, excluding the amount quoted in Part B-Financial Offer, which becomes payable under any of the provisions of this Agreement by one Party to the other Party shall, if the same be not paid within the time allowed for payment thereof or within 30 days of receiving demand, whichever is less, and same shall be deemed to be a debt owned by the Party responsible for payment thereof to the Party entitled to receive the same. Such sum shall until payment thereof carry interest at prevailing bank rate (of State Bank of India) plus 2% per annum from the due date for payment hereof until the same is paid to or otherwise realized by the Party entitles to the same save as otherwise specifically mentioned in the respective clause. Without prejudice to any other right or remedy that may be available under this Agreement or otherwise under Law, the Party entitled to receive such amount shall also have the right of set off.

20.12 Entire Agreement

This Development Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Developer arising from the Request for Proposal shall be deemed to form part of this Development Agreement and treated as such.

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20.13 Third Parties

This Agreement is intended solely for the benefit of the Parties and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement.

20.14 Successors and Assigns

This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns.

20.15 Duty and Charges

All duties and charges in respect of execution this Agreements including the Stamp Duty and requisite registration charges, shall be borne by the Developer.

20.16 Counterparts

This Agreement may be executed in 3 counterparts, each of which when executed and delivered shall constitute an original of this Agreement but shall together constitute one and only the Agreement.

IN WITNESS THEREOF THE, PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED SEALED AND DELIVERED

For and on behalf of NMC by: (Signature) (Name) (Designation) Authorized by the Resolution passed by the Governing Body of the Nagpur Municipal Corporation on ... day of 2022.	For and on behalf of Developer by: (Signature of Authorized Signatory) (Name) (Designation) THE COMMON SEAL OF DEVELOPER has been affixed pursuant to the resolution passed by the Board of Directors of the Developer at its meeting held on the ..... day of 2022 hereunto affixed in the presence of ....., Director, who has signed these presents in token thereof and ....., company Secretary / Authorized Officer who has countersigned the same in token thereof

In the presence of following:

Witnesses: 1. 2.

SCHEDULES

Schedule 1
Details and Maps of Project Site

(to be attached)



Schedule-2

Environmental Impact Assessment Study

(to be attached)



Schedule - 3

FORMAT OF ACKNOWLEDGEMENT OF PROJECT SITE

[on the letter head of the DEVELOPER]

(See Article 4.2)

FORMAT OF ACKNOWLEDGEMENT OF PROJECT SITE [•]

Date:
To:
[•]
Re: Handing over of Project Site [•]

Dear Sir,
We write in reference in to the Development Agreement dated [•], entered into by us with authority. As per the requirements of Article 4 of the said Development Agreement, this is to acknowledge receipt of Project Site from the Authority.

We further acknowledge that the project site is unencumbered and is fit and immediately available for the purpose of development of Assets thereon.

Details of the Site: to be inserted:

We have undertaken a due diligence over the project site, ourselves/through our authorized representative/s and we further acknowledge that we, or any entity claiming under us, shall have no recourse against the Authority if it is, at a later date, found that the Project Site is deficient in any manner whatsoever, and in the event of any mistake made or misapprehension harbored by us in relation to any of the foregoing provisions mentioned above(deficiency).If a Deficiency is found, we acknowledge and agree that we shall, at its own cost, take all appropriate measures to remedy the same in order to undertake the Project.

It is clarified that all fossils, antiquities, structures and/or other remains or things either of archaeological or of particular geological interest discovered at project site or in the course of carrying out any work shall not be the our property and we shall have no right or interest in such fossils, antiquities and structures.

For and on behalf of

Signature of Authorized Representative Seal/

Schedule- 4

Form of Performance Security

(Refer Clause 10.1)

The Hon'ble Commissioner,
Nagpur Municipal Corporation
Civil Lines,
Mahanagar Palika Marg,
Nagpur.

WHEREAS:

A. Nagpur Municipal Corporation ("**NMC**") and ..... (the "**Developer**"), have entered into a Development Agreement dated ..... (the "**Agreement**") whereby NMC has agreed to grant the Developer the Concession for implementing the project for planning and development of Commercial Complex at Plot No 2A of the Orange City Street Project at Mouza Somalwada, Nagpur ("**Project**") on design, build, finance, operate and sales ("**DBFOS**") basis, subject to and in accordance with the provisions of the Development Agreement.

B. The Agreement requires the Developer to furnish a Performance Security to NMC in a sum of Rs. **[•] (Rupees •)** (the "**Guarantee Amount**") as security for due and faithful performance of its obligations, under and in accordance with the Agreement, during for the Construction Work (as defined in the Agreement).

C. We, ...through our Bank.....Branch at ..... (the "**Bank**") have agreed to furnish this Bank Guarantee towards the Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Developer's obligations during the Construction Works, under and in accordance with the Agreement, and agrees and undertakes to pay to NMC, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Developer, such sum or sums up to an aggregate sum of the Guarantee Amount as NMC shall claim, without NMC being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

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2. A letter from the authorised representative of NMC that the Developer has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that NMC shall be the sole judge as to whether the Developer is in default in due and faithful performance of its obligations during the Construction Work under the Agreement and its decision that the Developer is in default shall be final, and binding on the Bank, notwithstanding any differences between NMC and the Developer, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Developer for any reason whatsoever.

3. In order to give effect to this Guarantee, NMC shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Developer and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.

4. It shall not be necessary, and the Bank hereby waives any necessity, for NMC to proceed against the Developer before presenting to the Bank its demand under this Guarantee.

5. NMC shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Developer contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by NMC against the Developer, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to NMC, and the Bank shall not be released from its liability and obligation under these presents by any exercise by NMC of the liberty with reference to the matters aforesaid or by reason of time being given to the Developer or any other forbearance, indulgence, act or omission on the part of NMC or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

6. This Guarantee is in addition to and not in substitution or derogation of any other guarantee or security now or which may hereafter be held by NMC in respect of or relating to the Agreement or for the fulfilment,

compliance and/or performance of all or any of the obligations of the Developer under the Agreement.

7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee will remain in force until compliance of the conditions specified in paragraph 8 below and unless a demand or claim in writing is made by NMC on the Bank under this Guarantee, no later than 6 (six) months from the date of expiry of this Guarantee, all rights of NMC under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

8. The Performance Security will be valid for 90 days after the completion of 84 (eighty four) months from the Effective Date.

9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of NMC in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.

10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of NMC that the envelope was so posted shall be conclusive.

11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for a period specified in Paragraph 8 above.

Signed and sealed this ..... day of ....., 20..... at .....

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

i. The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee

ii. The address, telephone number and other details of the Head Office of the Bank as well as of issuing Branch should be mentioned on the covering letter of issuing Branch.



Schedule- 5

As per Volume 3 of the Bidding Documents- Specifications and Drawings



Schedule- 6

Safety Requirements during and post Construction

Schedule- 7

Operations and Maintenance Manual

Schedule- 8

Form of Escrow Agreement

DRAFT ESCROW AGREEMENT

[To be filled in after the award of the winning offer, prior to the execution of the Contract]

THIS **ESCROW AGREEMENT** (hereinafter referred to as this **"Agreement"**), is made and entered into this _____day of _____ by and between:

1. .....represented by .....and having its principle office at .....duly authorized by G.O. .....dated ..... issued for the purpose (hereinafter referred to as the "**Authority**",

AND

2. **M**/s_____, a company/ partnership firm/ body corporate/ natural person] registered under the [insert relevant act depending upon legal constitution of the Selected Bidder/ Consortium/ date of birth of the natural person, having its registered office at _____ (hereinafter referred to as the **"Developer** " which expression shall, unless it be repugnant to the context or meaning thereof, include its successors and permitted assigns) represented herein through Mr._____, its duly authorized representative, authorized vide Board Resolution dated _____;

3.[.....]a bank duly registered in India, having its principal office at [.....], and represented by [.....] (the "**Escrow Agent**").

Authority, Developer and the Escrow Agent are referred to herein collectively as the "**Parties**" and individually as a "**Party**".

WHEREAS:

A. According to the Development Agreement entered into on [.....] between Authority and Developer (the "**Project**"), and the Escrow Agent shall establish an escrow account for the benefit of the Authority. Developer shall fund such account (pursuant to the terms of this Agreement), which shall serve to secure part of the Developer's payment obligations towards Authority under the Project.

B. The Escrow Agent is willing to serve as an escrow agent in accordance with the terms and conditions of this Agreement.

C. Unless otherwise defined herein, all capitalized terms shall have the meaning ascribed to them in the Project.

NOW, THEREFORE, the Parties hereto agree as follows:

1. ESCROW ACCOUNT

1.1 Appointment

Authority and Developer hereby appoint the Escrow Agent to serve as the escrow agent for the purposes of this Agreement and subject to the terms of this Agreement and the Escrow Agent hereby accept this appointment.

1.2 Escrow Account

After completion of the 30 months (Construction period), Developer and the Escrow Agent shall establish an escrow bank account denominated in Indian Rupees for the benefit of Authority (the "**Escrow Account**").

1.3 Deposit

No later than one (1) month following the establishment of the Escrow Account in accordance with Article 1.2 above, Developer shall transfer an amount equivalent to Sales Revenue share quoted by the Developer **(Initial Deposit).**

Each month following the Initial Deposit, Developer shall transfer into the Escrow Account, in immediately available funds, an amount equal to the stage-wise Sale Revenue share (the "**Deposit**").

The Deposit shall be held in escrow by the Escrow Agent until it is released in accordance with the terms and conditions of this Agreement.

Failure to comply with this Article 1.3 shall be deemed a Developer Event of Default under the Development Agreement.

The Initial Deposit and the Deposits made after each Sale of Project component by the Developer shall be collectively referred to as the "**Escrow Amount**".

1.4. Identification and Separation

The Escrow Agent shall clearly identify in its records the Escrow Account as an escrow account and shall keep the funds standing to

the credit of the Escrow Account segregated from and not commingled with the Escrow Agent's own funds or the funds of any of its other customers or third parties.

1.5. Fees

Developer shall bear the costs of the fees to be paid to the Escrow Agent for the establishment and management of the Escrow Account.

Any payment made by Developer under this Agreement shall be made from the following account or from such other account which Authority may designate from time to time:

Bank Account number:

BIC (SWIFT):

Address of Bank:

1.6 Escrow Account Statements

The Escrow Agent shall provide monthly statements regarding the Escrow Account to the Authority and the Developer.

2. ESCROW AMOUNT

Promptly upon the Deposit being transferred to the Escrow Account, the Escrow Agent shall send to the Authority and the Developer a notice informing them of the transfer.

The Escrow Agent shall hold the Escrow Amount in escrow for the sole benefit of Authority. The Escrow Agent shall not release any of the Escrow Amount for any person other than Authority. In particular, the Escrow Agent shall not accept any requests for withdrawals or transfers of the Deposit or the Escrow Amount from Developer for the benefit of the Developer or any third party, unless it is made in accordance with this Agreement.

The Escrow Agent shall not apply any right of set-off against the Escrow Amount, grant any lien over the Escrow Amount, or apply any fee or deduction in relation to the Escrow Amount.

At the end of each calendar year, the Escrow Agent shall transfer into an account of Developer as the Developer shall designate, any amount exceeding an amount equivalent to the Initial Deposit. Thus, the Escrow Amount at the end of each calendar year shall be equivalent to the amount of the Initial Deposit.

3. PAYMENT

Each month, the Authority shall issue a Revenue Statement and send it to the Escrow Agent along with supporting documents, with a copy to the Developer. Pursuant to the review of the supporting documents, the Escrow Agent shall pay the Authority the amount mentioned in the Revenue Statement within five (5) Business Days following the receipt of such Revenue Statement.

Upon the expiry of the Term of the Project, Developer shall send instructions to the Escrow Agent requesting him to release and transfer any due and payable amounts to the Authority and any remaining amounts to be transferred to the Developer.

4. OBLIGATIONS OF THE ESCROW AGENT

The obligations of the Escrow Agent under this Agreement are subject to the following terms:

(a) The duties of the Escrow Agent are only as herein specifically provided, and are purely administrative in nature. The Escrow Agent shall neither be liable for, nor chargeable with knowledge of, the terms and conditions of any other agreement, instrument or document in connection herewith, including, without limitation, the Project, and shall be required to act in respect of the Escrow Amount only as provided in this Agreement. This Agreement sets forth all the obligations of the Escrow Agent with respect to any and all matters pertinent to the Escrow Account contemplated hereunder and no additional obligations of the Escrow Agent shall be implied from the terms of any other agreement. The Escrow Agent shall incur no liability in connection with the discharge of its obligations under this Agreement or in connection therewith, except such liability as may arise from the Escrow Agent's negligence, wilful misconduct or otherwise from any breach of this Agreement. Such liability, however, shall not exceed the amount of the Escrow Amount outstanding at the date of the said breach by the Escrow Agent;

(b) the Escrow Agent shall not be required to perform any acts which will violate any laws or regulations applicable in India and in the State of Maharashtra;

(c) in the event of any bankruptcy proceedings or enforcement proceedings against any of the Parties pursuant to applicable laws or regulations, the Escrow Agent shall, notwithstanding the provisions of this Agreement, act and perform in accordance with the applicable laws or regulations.

5. REPRESENTATIONS AND WARRANTIES

Each Party represents and warrants that, as of the date hereof and in the foreseeable future:

(a) it has the authority to enter into this Agreement;

(b) this Agreement constitutes a legally valid and binding obligation, enforceable against it in accordance with its terms;

(c) its entry into and/or performance under this Agreement will not be in breach of any express or implied terms of any contract with or other obligation to any third party; and

(d) it is solvent and able to perform all of its obligations under this Agreement.

6. MISCELLANEOUS

6.1 Notices

Any notice or other communication to be given or made under this Agreement to the Parties shall be in writing. Except as otherwise provided in this Agreement, such notice, request or other communication shall be delivered by registered mail or facsimile to the Party (ies) at the following addresses:

NMC: **Escrow Agent:**

Developer:

6.2 Entire Agreement

This Agreement constitutes the entire agreement and understanding between the Parties with respect to its subject matter (i.e. escrow arrangement) and replaces and supersedes all prior agreements, arrangements, undertakings or statements regarding such subject matter.

6.3 Amendments

No variation of or amendment to this Agreement shall be effective unless made in writing and executed by all the Parties hereto.

6.4 Assignment

Neither this Agreement nor any of the rights or obligations hereunder may be assigned by a Party without the prior written consent of the other Parties; provided, however, that Developer shall be entitled, to the extent permitted by law and as may be required under its financing documents, to assign or create liens over its rights and interests under or pursuant to this Agreement.

6.5 Severability

Whenever possible, each provision of this Agreement shall be interpreted in such a way as to be effective and valid under law, but if any provision of this Agreement is unenforceable or invalid under law, such provision shall be ineffective only to the extent of such unenforceability or invalidity, and the remaining provisions of this Agreement shall continue to be binding and in full force and effect.

6.6 Confidentiality

Unless otherwise determined by a competent jurisdiction, the Parties, their employees, representatives and agents shall keep the provisions of this Agreement strictly confidential and, except as may be required by law, shall make no disclosure thereof to any person, except the Parties' respective legal counsel and professional advisers, without the prior written consent of the other Parties.

6.7 Termination

This Agreement shall be automatically terminated upon the expiry of the Development Period. It may also be terminated earlier if the Authority and the Developer agree to terminate the Agreement and send a termination notice to the Escrow Agent.

6.8 Dispute Resolution Mechanism

This Agreement shall be governed by and construed in accordance with the laws of India and the laws of the State of Maharashtra.

If any dispute arises out of or in connection with this Agreement, this dispute shall not affect the Parties' duty to continue the performance of all of their non-disputed obligations.

If any dispute arises, either Party shall give notice to the other Parties of the same, where-upon the Parties shall meet promptly and in a good faith to attempt to reach an amicable settlement.

All disputes not settled amicably pursuant to Article 6.8.above shall be heard by the Courts of Maharashtra.

IN WITNESS WHEREOF, each Party has duly executed this Agreement in four (4) originals on the date set out on the first page hereof.



Schedule- 9

Details of the Trees on site for felling/transplantation

VOLUME III

DESIGN PROPOSAL

FOR

DESIGN, BUILD, FINANCE, MAINTAIN and SALE OF COMMERCIAL COMPLEX PROJECT on

NMC PLOT NO2A, ORANGE CITY STREET PROJECT at NAGPUR

Project Proponent:

NAGPUR
MUNICIPAL CORPORATION

Issued by:

Office of the Executive Engineer (Project),

Civil Lines, Mahanagar Palika Marg, Nagpur.

Telephone: 0712-254283

Email: eeprojectnmc@gmail.com

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1.1 ANNEXURE I: EXISTING CONDITION OF THE SITE.

1.2.1 Site Location:

1.2.1.1 The Orange city street project, Plot 2A is a locality in the south west of Jayprakash Nagar, Maharashtra.

1.2.1.2 It is part of Orange City Street, Commercial Project.

1.2.1.3 The proposed site is in a prime locality of proposed Orange City Street due to its proximity to Commercial area and metro station

1.2.1.4 This site also has a big advantage of Public Amenities like Multiplex, Schools, Hospitals, Police station and Market.

1.2.2 Road network:

1.2.2.1 The Orange city street project site abuts 24m wide internal road

1.2.2.2 The site location is such that it gets easy access to Wardha road and ring road which further links to other parts of the city.

1.2.3 Surrounding:

1.2.3.1 The site is surrounded by Housing to the north and south.

1.2.3.2 This site also has a big advantage of Public Amenities i.e Metro, proposed city bus stops and the airport is about 2.0 Km radius from the site.

1.2.4 Climatology:

1.2.4.1 Nagpur has a tropical savannah climate with dry prevailing conditions for most of the year. It receives about 150mm rainfall in the month of June. The amount of rainfall increases to 294 mm in the month of July. Gradual decrease in rainfall has been observed from July to August (278 mm) and September (168 mm).

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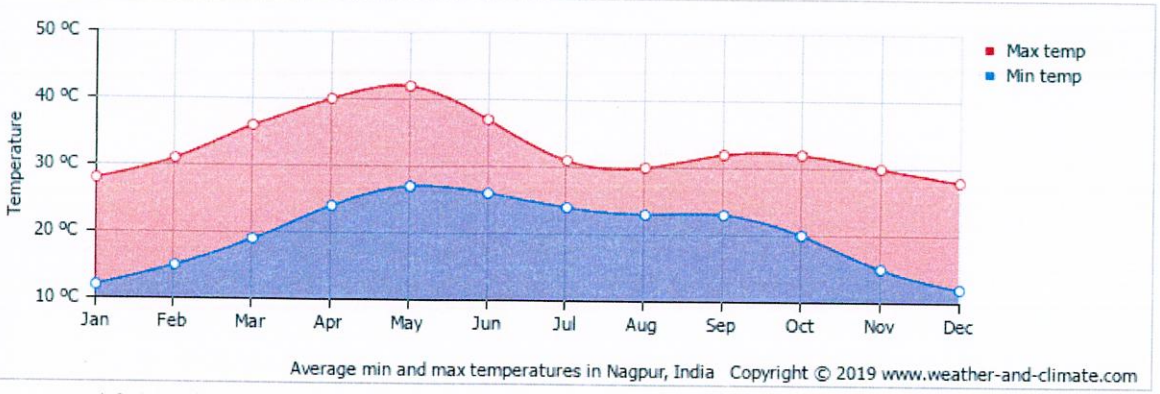

1.2.4.2 The warmest months of the year are March, April and May being the hottest of the months. Winter last from November to January.

1.2.4.3 The monsoon creates steady strong winds from December to April, and calm winds from June to October.

1.2.4.4 Source: Website- www.weather-and-climate.com

1.2.5 Topography:

1.2.5.1 Nagpur is located in the exact center of the Indian peninsula. The city has a zero mile locating the geographical center of India. Used earlier for measuring distances in India

1.2.5.2 The underlying rock strata are covered with alluvial deposits resulting from the flood plain of the Kanhan River.

Refer attached Site Survey Plan.

Schedule A: Context

1.2 PROPOSED DEVELOPMENT PROGRAM

SR. NO.	DESCRIPTION	AREA IN SQM
1	PLOT AREA	3365.82
2	TOTAL AREA OF PLOT IN POSSESSION	3365.82
3	FSI	4
4	AVAILABLE BUILTUP AREA	13463.28
5	AVAILABLE HEIGHT	42.05 Mtrs

1.3 DESCRIPTIVE PROGRAM

Project Name	:	Commercial Complex Project on Plot 2A.
Project Details	:	Plot Area: 3365.82 Sqm
		Total Proposed Built-up Area: 13363.617 Sqm.
		42.05m high G+8Building with two Basement Floors
Retail Space/Office Space	:	(Gf th to 8th Floor)
		Parking Space: 132 Four Wheelers
		1260 Two Wheelers

1.4 Applicable Standards and Compliances

Red Book Specifications, relevant IS Codes, National Building Code 2016, Medical Council of India (MCI) guidelines and other standard specifications suitable for Modern High rise buildings and latest technology will be followed in general except otherwise mentioned in Bidding Document

NOTE: All codes and standards means the latest where not specified otherwise the installation shall generally follow the Indian Standard codes of practice or relevant British Standard Codes of Practice in the absence of corresponding Indian Standards.

Schedule B

GENERAL DESCRIPTION AND SCOPE OF WORK

B.1 The brie scope of work shall be Construction of Proposed NMC PLOT 2A for Orange City Street at Nagpur (Ground+8 Floors) along with on-site infrastructure development through Detailed structure Design, Engineering, and Procurement & Construction of Building(s) Work including Civil, Sanitary & Plumbing, Water Supply, electrical, elevators and other allied works as per specification.. The scope of work also includes construction Basement, electrical sub-station, firefighting, DG set room, pump house, UG water tank, compound wall, gates, security cabins, service providers room, landscaping, parking area, driveways, ramps, rain water harvesting etc. in on-site infrastructure development.

B.2 The work is to be executed on **Design Buid Finance Maintain and Sale basis**. The Developer shall

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prepare the detail Design & Construction Drawings. The Developer shall also submit complete Building Design (including Structure, electrical, plumbing, Firefighting etc.) for necessary checking by the Consultants. The designs for building and ancillary structures are to be got proof checked and vetted from IIT/NIT.

B.3 Developer has to get the design vetted by IIT / NIT or equivalent Government Institute. The Design / Detail Drawings and Schemes shall have to be got approved from the Competitive Officer of the authority. Red Book Specifications, relevant IS Codes, National Building Code 2016, Medical Council of India (MCI) guidelines and other standard specifications suitable for Modern High rise Residential buildings and latest technology will be followed in general except otherwise mentioned in Bidding Document. Cost of appointing IIT/NIT and proof checking work will be borne by the Developer, and Developer shall submit "Design Basis Report" with all design calculations and design drawings to Authority's Engineer / PMC.

B.4 Developer scope of work includes preparation of complete structural design & Drawings, Construction & Commissioning of Building along Plumbing, Electrical, Firefighting and other civil works. All GFC drawings shall be prepared by the Developer.The design and drawings for structure and MEP (services viz. Electrical, Plumbing and Firefighting) shall be completed including proof checking from IIT/NIT, at their own cost.Also, all the GFC drawings including Structural and services MEP drawings will be approved in coordination with Architect.

B.5 Obtaining mandatory approvals from Local Bodies / State & Central Authorities / Municipal Corporation etc. shall be in the scope of the Developer in case of any deviation in design or master plan from the drawings submitted by the Project Consultant. All other Approvals as per latest Building with up to date corrections slips, necessary Environmental Clearance from the Appropriate Authority, NOC from Fire Department, NOC from Airport Authority of India, Atomic Energy Regulatory Board (AERB), Govt. of India etc. and any other statutory Approval etc. would be required in case of any deviation from the approved drawings.

B.6 All the Testing of materials, workmanship to be done as per specification and instruction of Authority's Engineer / PMC

B.7 All the Statutory compliances / labour laws / insurance shall be complies as per Central / state / local Authorities.

B.8 The scope of Works & Specifications are given in general but they are not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the

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drawings and / or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works (like site enabling works, barricading, mobilization, demobilization of equipment, plants etc.), which are not mentioned in the contract document / specifications but will be necessary to complete the work shall be deemed to have been executed by the Developer for various components of work.

Brief Scope of Work for this Tender:

Structural work

- RCC work including form work
- Reinforcement work
- Expansion joint

Masonry work

- AAC block masonry
- Rubble masonry

Plaster (Internal and External)

- 12mm thick in single coat in cement mortar 1:4
- 2mm thick wall care putty
- sand faced plaster at external face

Waterproofing

- Chemical and BBCC water proofing at toilet and bath
- Terrace water proofing
- OHT water proofing
- Water proofing at UGT and lift pit

Floor and Wall finishes

- Vitrified Tile flooring and skirting
- Ceramic Tile flooring and dado
- Granite stone flooring and skirting
- Kota stone at flooring, skirting, treads and risers
- Tremix at parking areas.

Timber, metal joinery for Doors / Windows

- Flush door with metal frame
- Fiber glass reinforced polyester door with frame
- 2hrs. Fire rated metal doors, 1hr. fire rated wooden doors
- Aluminium windows, Ventilator

Sundry metal works

- Mild steel safety grill
- Mild steel entrance gate
- Rolling shutters
- M.S. and Stainless steel railing, handrail

Gypsum False ceiling

Painting (Internal and External)

- Plastic emulsion paint
- Texture paint

Driveway and parking areas

B.9 In case, some of descriptions are missing in scope of work or specifications in the Bidding Documents shall be executed in the CPWD Specifications, NBC-2016 (National Bidding Code 2016) , IS Codes or according to sound engineering practices so as to make the building including related services fully functional.

B.10 **Defects Liability Period from the date of certified final completion of the contract in all respect**

a)	Waterproofing of Terrace, WC, Bath, Kitchen Sink, Balconies, Decks, Lift Machine Room Roof, Water Tanks, chajjas, Basement etc.	:	10 (Ten) Years
b)	Building Structure	:	10 (Ten) Years
c)	Anti-termite Treatment	:	10 (Ten) Years
d)	Seepage & Dampness through Walls	:	10 (Ten) Years
e)	Transformers	:	10 (Ten) Years
f)	D.G. Sets	:	10 (Ten) Years
g)	Lift / Elevators	:	10 (Ten) Years
h)	Pumps & Pumping Machinery (Domestic & Fire Fighting)	:	10 (Ten) Years
i)	For Balance Work	:	10 (Ten) Years

B.11 GUARANTEE FOR SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURES FOR AT LEAST 50 YEARS

i) The Developer shall ensure that the structure of buildings constructed for the tenements are durable and shall last for a period of at least 50 years.

ii) The strength as well as durability shall be considered explicitly at design stage.

iii) The structure shall be designed for loads and stresses as mentioned in relevant applicable IS Codes and as per provision of NBC. The RCC designs of buildings shall be based on consideration of earthquake forces as per prevailing relevant IS and seismic coefficient shall be assumed for calculation of earthquake forces as prevailing in relevant IS codes. The importance factor of the buildings shall be considered as per code.

Following clause of IS 13920:2016 has to be followed but not limited to.

The provisions for RC structures given herein apply specifically to monolithic RC construction, and not for Precast RC structure. Precast and / or prestressed concrete members may be used, only if they are designed to provide similar level of ductility as that of monolithic RC structures during or after an earthquake. Likewise, flat slab structures must have a lateral load resisting system capable of providing similar level of performance as envisioned in this standard and must be designed for drift compatibility as per 11. Specialist literature must be referred to for design and construction of such structures. The adequacy of such designs shall be demonstrated by adequate, appropriate experimentation and nonlinear dynamic structural analysis.

iv) The structure shall therefore be designed for 'Limit state of Serviceability' as well 'Limit state of collapse' to ensure safe performance of structure during service life.

v) For any type of foundation required for buildings in case, the soil and the sub-soil water at the site has high sulphate and chloride content, the Developer shall have to take utmost precautions to obtain a dense, concrete of low permeability.

vi) Relevant applicable design controls; as laid down in IS 456; shall be exercised in respect of wear & deterioration of concrete so as to make the structure to give satisfactory service and safety during its service life by way of limiting actual stress values within permissible limits under intended loads.

vii) In observing the design controls, various code of practice and design guides, which give recommendations on durability, shall be followed. The minimum cement content, water cement ratio, minimum grade of concrete, minimum cover to reinforcement for exposure conditions of environment in Nagpur shall be strictly followed.

viii) The mix design for concrete of various grades, shall be as per latest relevant IS specifications keeping in view both strength and durability.

ix) The concrete shall be of low permeability to be durable for 50 years. For this purpose,

a) The concrete shall be strong and dense with sufficient low water cement ratio.
b) The concrete shall be compacted thoroughly.
c) Sufficient hydration of cement shall be ensured through proper curing methods.
d) The aggregate cement ratio for given aggregate shall be sufficient to provide adequate workability with low water cement ratio so that concrete can be compacted with means available with the Developer. Use of plasticizers for workability without increasing the water cement ratio.

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x) The Developer shall be responsible to take and implement adequate measures as laid down in relevant applicable IS codes while designing the sub-structure to ensure non-deterioration of foundations under the presence of sulphate and chlorides in the soil/ sub-soil water as revealed during actual geotechnical investigation of the project site(s).

xi) The sub-structure as well as super-structure shall be designed for relevant Exposure condition and / or as revealed from site investigations and shall be conforming to applicable IS provisions to ensure safe performance of structure during service life.

xii) Developer shall take into considerations the creep and long term deflection criteria during service life for various prefab structural elements and accordingly ensure the adequacy of sections in conformity with IS provisions.

xiii) The Developer shall ensure desired performance of various joints in prefabricated members during design as well as execution stage so that structural integrity under applicable intended loading conditions will be assured during service life of structure.

xiv) The Developer shall be responsible to design the structure for 'Limit state of Serviceability' limiting the crack width within permissible limits as per IS code to ensure safe performance of structure during service life.

xv) The Developer shall be responsible for damage/deterioration of structural members due to weathering conditions till expiry of Defects Liability Period as prevalent when structure is erected / constructed.

xvi) The NMC/Client officials shall inspect the building for its durability and inform the Developer. The repairs needed except due to lack of proper maintenance shall have to be done by the Developer at their risk and cost.

xvii) The Developer shall ensure that the work is executed with adequate supervision and that the execution of construction complies with the specifications. For this purpose, the Developer shall carryout various tests on materials and finished items as per relevant IS specifications.

xviii) The curing affects primarily the concrete in the cover to the reinforcement and by definition this is the concrete that protects the reinforcement from corrosion by the ingress of aggressive agent. The Developer shall therefore give very special attention to the curing of concrete. The period for curing mentioned in the IS code shall be strictly adhered to. The water used for curing shall be potable.

xix) The Developer shall give special attention to maintain the specified cover during execution as this is very important to transfer the forces in the reinforcement, to provide fire resistance to the steel and to provide an alkaline environment at the surface of the steel.

xx) The Developer shall ensure in the design that there shall be no excessive deflection, creep & cracks in the structure beyond permissible limits for 50 years.

B.12 **IMPORTANT NOTE:**

The Developer is required to do the structural design and construct the buildings taking into account the requirements of the codes, professional practices, etc. It is not possible to describe in details each and every item of the construction. However, some of the specifications of some of the items have been incorporated in the tender to avoid discrepancies and to have an equal basis for comparison amongst the Developers. Certain items may not have been described in the tender, however, they form part of this contract as the Developer is supposed to construct the buildings as per Architect's drawing and complete the same in all respect so as to make the tenements habitable and safe. The drawings and design for all services viz. electrical, sewerage water supply, plumbing & sanitary, rain water disposal, fire-fighting etc. shall be submitted by the Developer and got approved from Authority's Engineer / PMC and NMC.

B.13 **SUBMISSION REQUIREMENTS:**

Submission shall be made in two copies of reports / write up / design and three copies of drawings shall be given duly signed by the Architect, Licensed Structural Engineer, Licensed Services Engineer, Developer and proof Consultants.

i) Structural Design - Design criteria, method of analysis, method of design, schematic drawings, references if any, durability considerations, specification, brief, preliminary designs & calculations, acceptance criteria, special reference to non-conventional concept, design be made, when the Developer is submitting his own design.

ii) System Designs for buildings & infrastructure works.

iii) Design brief i.e. Design Basis Report including specifications and acceptance criteria for ON-SITE Development, and preliminary design Calculations.

iv) Detailed write-up of the proposed technology including details of construction, structural details / joint details, test reports, certificates regarding various tests carried out on proposed building system establishing structural stability and behavior of joints / diaphragm action, walling details etc.

v) Brief on construction method and deployment of resources.

vi) Quality Control/Assurance brief including proposed organizational set up testing facility and frequency of testing for different materials.

vii) A site/layout plan showing the proposed development including services with north direction scale (1:1000).

viii) Cluster plans showing ON-SITE development under the scope. Scale (1:500).

ix) Details of dwelling units - Plans, Elevations, sections, type of foundations, founding levels etc. Scale (1:100).

x) Soft copy of all above submissions in a compact disk (CD).

xi) Structural Engineer's and Architect's certificates as per format given below.

B.14 STRUCTURAL ENGINEER'S CERTIFICATE

It is certified that the structural design including safety from natural hazards like seismic, wind, fire etc. as per N.B.C./B.I.S./Specialized literature/Sound engineering practices has been prepared by duly qualified Structural Engineer meeting with stipulated NIT provisions and the same shall be used in proposed construction.

Signature of bidder	**Signature of Structural Engineer**
Name in Block Letters _____	Name in Block Letters _____
	Registration No _____
Address _____	Address _____
Date _____	Date _____

B.15 ARCHITECT'S CERTIFICATE

It is certified that the proposed buildings plans submitted for approval shall satisfy the safety and functional requirements as stipulated under National Building Code of India (with up to date amendments) and the information given therein is factually correct to the best of our knowledge and under understanding. It is also certified that building plan submitted are in consonance with provision of GDCR (As amended) and DCR.

Signature of bidder	**Signature of Architect**
Name in Block Letters _____	Name in Block Letters _____
	Registration No _____
Address _____	Address _____
Date _____	Date _____

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c. The project Details and Area Statement.

C.1 PROPOSED DEVELOPMENT PROGRAM

Project Name : Commercial Complex Project on Plot 2A.

Project Details : Plot Area: 3365.82 Sqm

Total Built-up Area: 13463.28 Sqm.

42.05 m high G+8 Building with two Basement Floors

Retail Space/Office Space : **13363.617**. ft. Area (Gf th to 8th Floor)

Parking Space: 132 Four Wheelers

1260 Two Wheelers

C.2 CONSTRUCTION AREA STATEMENT

SR. NO.	DESCRIPTION	AREA IN SQM
1	PLOT AREA	3365.82
2	TOTAL AREA OF PLOT IN POSSESSION	3365.82
3	FSI	4
4	AVAILABLE BUILTUP AREA	13463.28
5	AVAILABLE HEIGHT	42.05 Mtrs

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SCHEDULE D

1. Design Standards

The Project including Project Facilities shall conform to design requirements set out in the following documents:

	DONGRE PMC PVT.LTD. IMPERIAL HEIGHTS, AKSHAR CHOWK, VADODARA TEL: (0265) 2980133,134	DESIGN BRIEF - MEP

MEP SERVICES BRIEF DESIGN CONCEPT FOR

COMMERCIAL BUILDING AT

ORANGE STREET CITY, NAGPUR

DESIGN ARCHITECT

ARCHITECT HAFEEZ CONTRACTOR, MUMBAI

MEP SERVICES DBR BY

DONGRE PROJECT MANAGEMENT CONSULTANTS PVT. LTD

INTRODUCTION

Client is developing Commercial building at Orange Street City plot 02A, Nagpur. Architect Hafeez Contractor is the Principal Architect for the project.

Commercial building has been allotted in Plot Area 3366.0 sqm All the Services have been planned accordingly.

The object of this Brief is:

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To identify the utility requirements & establish the Brief design concept for complete building.

Based on these details and calculations use them as preliminary concept details for Estimation as per CPWD Plinth Area Rates (PAR).

Estimate based as per Area calculated by Dongre PMC P.L. and Plinth Area Rates of CPWD

Architect has entrusted Dongre PMC P.L. to work out Estimate as per PAR basis of Entire Internal Services development of Mechanical, Electrical, Firefighting & Plumbing services. All the Infrastructure Services have been planned accordingly for complete development.

Table 1 identifies Town planning approval for Plot development which is assumed as the Basis of this Design Brief:

AREA STATEMENT – BUILT UP AREA: TABLE 1 AS MENIONED IN THE DRAWING.

The Services Systems for the project have been conceptualized based on the Architectural drawings and National Building Codes 2016 standards to produce a preliminary design Concept for purpose of Estimation as required for under standards of CPWD used for Estimation under Plinth Area Rates.

MECHANICAL (PLUMBING & VENTILATION)

It is proposed to provide for Plumbing, storm water drainage, rain water harvesting & recycling of such sustainable resources which would benefit the owners with value additions. Firefighting presently would be designed to cater to the protection from fire and life safety National building codes 2016 & Fire alarm to alert occupants, personnel and security to manage the fire conditions. Ventilation system shall be proposed in the design to provide Internal air quality for safe guarding the basic necessity of humans working at the premises i.e. is adequate air changes for freshness in ambient.

ELECTRICAL

It is proposed to provide for Electrical installation with possibilities of design provisions of power at Substation to be provided 33KV/ 415V supply by local utility service provider as well as by DG sets & renewal energy sustainable resources (Solar PV) which would benefit the owners with value additions. The preliminary design thought present adequate provision but would need to be reviewed based on the Power demand which would arise from time to see through the perspective of Owners. However design concept of Electrical installation is by far has been guided by Electrical Codes of practice & National Building Codes 2016 to create a road map for Owners to plan for area by area futuristic development.



PLUMBING SYSTEM

INTRODUCTION

The Design concept covers the following points

Basic assumptions

Estimation of the Total Water Demand

Water Distribution & sewage disposal

BASIC ASSUMPTIONS OF THE CONSULTANTS (REFER ATTACHED ASSUMPTIONS)

The Water Demand & Water Storage has been planned as per the NBC norms.

As per the same, the total population has been calculated for the project considering occupancy as per following.

For Office = 1 workstation occupant / 10 Sqm For Shop = 1 occupant / 10 sqm

For Restaurant = 1 seating / 3 Sq.mt

Similarly, the water demand has been calculated on the following National Building codes 2016

For office / shops 45 liters / Person / day

For Restaurant 35 liters / Person / day

Landscaping Not considered as area is paved with No landscape provision

The Storages have been planned as follows

In UGT Storage shall be 1.5 times of Daily Water Demand.

Flushing storage shall be near STP. From this tank flushing water will be pumped to OHT flushing compartment.

Municipal water Inlet, Fire fighting Siamese connection, Electrical Mains Power cable are assumed from Road on the North corner of the building and enter through west side wall. Drainage line from STP and Bypass shall be connected to Municipal First Sewage manhole.

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These Local authorities' incoming services would expel from the building as per Architectural detail planning and existing lines of Municipality. Necessary opening shall be devised for provisions of these services.

Location of UG Firefighting tank, Domestic water tank, flush tank, STP & Pump room for these services shall be located in area marked by Architect.

There are two different systems for water distribution viz. for Domestic & Flushing. The treated water from STP will be used for flushing. Rainwater harvesting water will be supplied to the nearby ground water aquafiers (The same needs to be confirmed by the MOEF consultant).

The source of water needs to be confirmed. Currently, it is expected from Municipal supply.

The Domestic water thus received is assumed to be potable (from Municipal authorities) shall be stored in Underground reservoir. The same shall be pumped to Overhead water tanks of building as applicable and further distribution by hydropneumatics pumping.

APPROXIMATE POPULATION AND WATER DEMAND CAN BE TABULATED AS GIVEN BELOW: (SEE ANNEXURE 1 WATER DEMAND CALCULATIONS)

			DOMESTIC SUPPLY		FLUSHING SUPPLY	
OFFICES & SHOPS	NO OF OFFICE	NO OF OCCUPANT OFFICES & SHOPS	UNIT DOMESTIC DEMAND (LPD)	TOTAL DOMESTIC DEMAND (KLD)	UNIT FLUSHING DEMAND (LPD)	TOTAL FLUSHING DEMAND (KLD)
OFFICES (1/10SQM)	56	1146	20	23	25	29
SHOPS (1/3 SQM)	15					
RESTAURANT	NO	NO OF SEATINGS TOTAL	UNIT DOMESTIC DEMAND (LPD)	TOTAL DOMESTIC DEMAND (KLD)	UNIT FLUSHING DEMAND (LPD)	TOTAL FLUSHING DEMAND (KLD)
RESTAURANT 1,2 &3	3	305	25	8	10	3
			TOTAL= DOMESTIC	31	TOTAL= FLUSHING	32

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Based on the above assumptions, the daily water demand for the Domestic & Flushing water of the project has been estimated to be about @25 KLD (See attached Water Demand calculation statement). Total Tank requirement capacity of 1.5 times demand say 100 Cum, 65cum at Underground tank and 35 cum at overhead tank.

Building shall have an Underground tank of 265 cum (65 cum for Water supply and 200 cum for Firefighting) & Overhead Tank 55 cum at roof (35 cum water supply & 20 cum of storage for Fire Fighting purpose).

SOURCE OF WATER SUPPLY

The principal source of water shall be from the nearby municipal mains as confirmed by the client. This is proposed to be used for the Domestic water requirements. The recycled water from the STP shall be used for the Flushing water after treatment.

WATER DISTRIBUTION SCHEME

Water is pumped using system of pumps or deliver from municipal mains to Firefighting tanks and the overflow of this Firefighting tank connect to the domestic water compartment of the UGT. Recycled water from STP flushing tank & domestic water from UGR will be pumped into the respective compartments of OHT of building.

SOIL / WASTE DISPOSAL Concept

The system shall be designed keeping in view the following:

Natural Grading of the site.

Architectural layout planning.

Formation levels of Roads & Plinth levels of Block.

Landscape layout with formation levels of different features.

Subsoil water table.

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Planning Approach

The system shall be designed as double stack pipe system as per NBC. Soil & waste shall be carried in separate stack pipes with vents, stack shall be provided with separate anti-siphonage pipe to safeguard the water seal. The sewerage system is ultimately connected to STP through sewer trap and excess sewage and bypass provided to connect to municipal line.

SEWAGE TREATMENT PLANT

Sewage Treatment Plant shall be designed for capacity equivalent to 75 % of estimated daily flushing water demand i.e., STP capacity for Building – 25 Cum/Day. Sewage treatment shall consist of Solid separation zone, Aeration zone & final sedimentation zone. Detail requirements for STP shall be stipulated in the form of Data Sheet before inviting offers for STP. Effluent from STP shall be as per outlet parameters stipulated in Data Sheet & suitable for Flushing water supply. STP shall be compact, no foul smell, consuming minimum electric power, simple in Operation & Maintenance.

TREATED WATER STORAGE & PUMPING

Water treating plant is considered for availing Treated water which shall be stored in UG tank. The Treated water shall be used for various purposes along with Reverse Osmosis plant as per requirements.

FIRE-FIGHTING SYSTEM

INTRODUCTION

Fire engineering is a field, which explores the various possibilities of preventing fires. It can be defined as the art and science of designing buildings and facilities for life safety and property protection in the event of an unwanted fire. This includes the application of scientific and engineering principles, based on an understanding of the phenomena and effects of fire and of reaction and behavior of people, property and the environment as well as the impact of fire protection systems including detection, alarm and sprinkler systems.

Stopping a fire early can save lives and assets. In fire protection, you would want all the effectiveness you can get, as fast as you can get it. Our Brief concept of planning of fire-fighting systems is designed to ensure fire detection and protection for all types of fire risks.

The Design Basis Report covers the following points

Basic assumptions by the Consultants

Provisions for Fire Fighting System

Provisions for Fire Alarm System

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BASIC ASSUMPTIONS OF THE CONSULTANTS (refer attached Assumptions)

All provisions for the fire-fighting shall be as per the provisions of the local fire authorities and as per relevant I.S. / NBC codes.

However the Chief fire officer's / local fire officer's requirement, No objections certificate preliminary guidelines etc., would be shared by developer to review these design criteria which would be incorporated from into the detailed design drawings which need to be reaffirmed with Local fire authorities through developers liaison agent responsible for obtaining final no objection and certificates.

Below table is based on Table 7 of National building codes 2016 Volume 2 Part 4 which form for developing the basis of brief design concept although it is recommended to have firefighting works carried out through Fire authorities approved Firefighting authorized contractor.

PROVISIONS FOR FIRE-FIGHTING SYSTEM AS PER NBC

Sr. No.	Systems Required/Not Required	Mixed Tower
1	Fire Extinguishers	R
2	Hose Reel	R
3	Dry Riser	NR
4	Wet riser	R
5	Down Comer	NR
6	Yard Hydrant	R
7	Automatic sprinkler system	R
8	Manually operated electric fire alarm system	R

9	Automatic detection and alarm system	R
10	Underground & Overhead tank	R – UG Tank – 200 cum OHT– 20 cum capacity
11	Hydrant & Sprinkler pumps (at Pump house)	2850 LPM @ & Jockey pump 180 LPM

However actual provisions shall be as per provisional CFO NOC

PROPOSED PROVISIONS FOR FIRE-FIGHTING

FIRE EXTINGUISHERS

Portable fire extinguishers shall be provided as per IS: 15683.

Portable Extinguishers of the following types shall be installed at strategic locations

Dry chemical Powder type

CO2 type

Dry Chemical Powder Type

The Dry chemical powder type shall be of 5 Kg. Capacity and shall have the IS mark 2171 complete with powder and charged including with fixing bracket, fitted with gunmetal cap, and discharge hose and open grip nozzle.

CO2 Type

The CO2 Extinguisher shall be provided with ISI mark, with initial charge with high pressure cylinder, complete with wheel type valve, internal discharge tube, with high pressure discharge hose with horn and suspension brackets. The extinguisher shall have ISI mark of 2878 and capacity shall be 6.5 Kg.

A fire reservoir of 2,00,000 liters will be provided in suction tank the firefighting system would consist of :

Fire Hydrant & Hose Reels system

Automatic Sprinkler system

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Hydrant System shall comprise of the following:

The main firefighting pump shall be provided with a wet riser of 150mm dia. GI class C pipe to provide a minimum pressure of 3.5 kg/sqcm. (45 PSI)

External hydrants are provided along the periphery of the property (or as per recommendation by the Chief fire officer) & connected to the ring main. Single outlet landing valves will be provided at External areas.

The Hydrant system will be connected to the wet risers will have electrically operated main pump, a jockey pump and an alternate source of Diesel Engine driven pump set when electricity failure takes place in event of fire.

Water storage for Fire Fighting shall be provided in the UG Fire tank 2,00,000 litres Hydrant pump @ 2850 lpm and to maintain a head of 3.5 kg/ sq.cm., this shall be used to pressurize the hydrant system. It is also recommended to provide 1 nos 20,000 liters overhead at suitable location with staircase.

Single outlet landing valves will be provided at all Typical Hydrants shall be provided at each landing Level, with 65mm diameter canvas hose (15m long) and connection for 25 mm diameter rubber hose pipe directly to the Wet-riser with a valve (30m long).

The System shall be fully charged to maintain the above indicated pressure and all operations of the pump shall be fully charged.

The Sprinkler System shall comprise of the following:

Sprinkler system will be connected to the wet risers will have electrically operated main pump, a jockey pump and an alternate source of Diesel Engine driven pump set when electricity failure takes place in event of fire.

Water storage for Fire Fighting shall be provided in the OHT (1 no's 20,000 liters). Booster pump of 900 lpm and to maintain a head of 3.5 kg/ sq.cm. This shall be used to boost the pressure in the sprinkler system; through the sprinkler pump operation shall be automatic, when there is drop of pressure in the system. The risers shall be provided with installation control valves and hydraulic alarm. An electrical sensor (flow switch in branch line & tamper switch at each branch valve) connected to fire alarm panel planned to be located on the ground floor; so that it is possible to identify effected area immediately. There would be a drain arrangement on each floor shaft for testing of sprinklers for testing the operations of flow switch and tamper switches. Down comer of 150 mm diameter near the fire escape staircase.

Sprinkler with Headed shall be provided at each Offices, shops, Restaurant and floor lobbies Staircase landing Level, with sprinkler and connection from pipe directly to the Wet-riser with a valve (solenoid type driven by Fire Alarm modules for each floor).

Sprinkler with Headed shall be provided at each floor, floor lobbies, Staircase landing Level, with sprinkler to cover every 10 sqm. by one sprinkler and connection from pipe directly to the Wet-riser with a valve (solenoid type driven by Fire Alarm modules for each floor).

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The System shall be fully charged to maintain the above indicated pressure and all operations of the pump shall be fully charged

PROVISIONS FOR FIRE ALARM SYSTEM

Each Building shall also been provided with a intelligent hybrid addressable & conventional type Fire Alarm System.

The System comprises of the following

Main Fire Alarm Panel for Building in the Security/ reception/ ELV room.

Manual Call Point & Hooters on each floor.

Heat detector and smoke detector in Shops, Office shall be provided in kitchen/ Pantry and lobby. The system within the offices, shops and Restaurant shall be conventional type connected by single module per apartment to addressable fire alarm system of the building.

Smoke/ Heat Detectors in Pantry, Lift machine room, Meter Room, Lobby, inside the offices, Staircases, Buildings all to preliminary NOC of CFO.

System would act as the means of public address voice evacuation in case of fire conditions.

Other Provisions

Electrical Panel Room shall be provided with independent fire-fighting provisions for fighting fire in these areas as per Local Electrical service providers.

The Supply to all Fire Loads viz. Fire Pump, Fire lift & Fire Alarm Panel, Common Lighting, etc. shall be on the emergency circuit, which would be operational in case of a fire, when all other feeders would be switched off. The same would have a backup alternate feed from a D.G. Set supply.

ELECTRICAL SYSTEM

SOURCE OF POWER SUPPLY

The principal source of electrical power would be from the available Electricity service providers.

The client has expressed their desire to apply for a power franchisee with the local fire authorities and hence the same will be taken into consideration.

It is assuming the supply voltage for the project shall be 33KV conversion to 415 Volts from Service provider nearest substation of 66 KV/ 33KV transformers developers liaison agent to action.

Necessary area for Electrical Room has been demarcated by the Architects for the same however depending on number of meters area would be reviewed.

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DISTRIBUTION

LT Power Distribution

415 Volts, 3Phase+N, 50Hz Power supply from Service provider shall be brought to Main LT Panels using adequate protections & releases, and the further distribution from the Meter Panel shall be carried out for the Commercial premises, Common Areas, Pump Room, Fire Fighting etc., through a PVC/XLPE Insulated, Aluminum conductors 1100 Volts grade insulation power cables.

Electrical Meter Rooms is available for housing the Energy Meters provided by the Supply Authorities/ Service provider of Electricity.

BASIC ASSUMPTIONS BY THE CONSULTANTS (Attached Assumptions)

The Electrical Load for this building has been estimated on basis of Load Assessment sheet Annexure 2 proposed for the different areas. The Client to confirm the Load Assessment sheet for the mentioned area.

Detailed Load Assessment will be done after receiving approval of Load and Final detailed layouts from Client / Architect. Future Load calculations will be submitted by the Liasoning Contractor to the supply authority and a Sanction will be sought for the same.

SYSTEM OF WIRING

The system of wiring shall consist of PVC insulated copper conductor in PVC conduit. Minimum size of copper conductor shall be 2.5 sq. mm for Sub Circuit i.e. from Distribution Board to Switch Board, 1.5 sq. mm for Lighting and 2.5 sq. mm for Power circuit. Color code shall be maintained for the entire wiring installation that is Red, Yellow and Blue for the three phases, Black for the neutral and green for earthing. Besides, ferruling shall be provided for number coding, easy identification and maintenance purposes.

Every area shall have localized switching for convenience and operational purposes. Distribution board controlled lighting shall be considered for common and external areas. Convenience power outlets will be provided throughout the floor.

SWITCHING ARRANGEMENT

Switching arrangement at various locations will be planned keeping in view the ease with which isolation can be achieved and also the level of fault protection desired at the particular current rating. In distribution scheme the Building will consist of metering panel in which incomer as per Load of the Building (MCCB) & Outgoing will incorporate miniature circuit breaker/ MCCB and earth leakage circuit breaker.

EARTHING SYSTEM

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Distribution Earthing shall be carried all along the LT distribution system, or through local earth station and effectively bonding the cables / equipment as the case may be.

Earthing system to be provide shall be comprise of pipe/plate earth electrode earth bus/grid of GI/Cu or / and bare copper earth wires or Galvanized earth wires as called for, acting as earth continuity conductor.

Earthing of Compound and Road Lighting poles shall be done by using Cu or GI plates in earth pits near pole and 7/16 size galvanized strained wire for connecting to the pole or as specified in the Schedule.

Resistance of Earth

Resistance in earth bus and at major electric equipment does not exceed 1.0 ohm.

LIGHTNING PROTECTION

The entire premises shall be protected from lightning by providing Lightning Arrestors as per IS codes or equivalent standard connected to Cu/ GI strip installed along the periphery at the terrace level. Suitable earthing grid shall be formed and connected to earthing station through multiple riser GI strips on building facade.

ELECTRICAL LOAD CALCULATIONS

The total electrical demand for the project shall be dependent on the approval of the Load Assessment Sheet (Annexure 2 attached).

The details showing the demands for the different areas of building, Critical and common loads have been attached.

DIESEL GENERATORS FOR EMERGENCY POWER GENERATION

All common lighting loads and pumps for the building shall be provided with DG Set Back- up. Also, Lift of building marked "FIRE LIFT" has been considered to be with DG Set Back- up.

The Gen-sets shall be LT and Radiator Cooled in an acoustic proof enclosure.

Also, the Gen-sets shall be provided with AMF.

The Gen-sets are proposed to be located on the Ground Level nearer to the building. Architect to confirm suitable location.

ELECTRICAL METERING

Each Office and shop shall be provided with an Independent Energy meter from Electrical Supply authority. For common load of the Building one individual meter should be provided for landlord energy metering. These Energy Meters shall be located on building Ground floor Electrical Meter Rooms suitably located by Architect. No metering is proposed for the DG Set power. The cost of the DG Set operation and maintenance shall be shared among all Office/ Shops/ Restaurant owners as common maintenance charges based on area occupied.

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LOW VOLTAGE SYSTEM

System Description for Telephone System

All voice points as identified by owners for building main entrance lobby, and Common areas shall be connected from the tag block located in secured rooms called ELV room (location to be identified by Architect) through telephone cable by the service provider. Provision of 20mm/25 mm dia PVC conduit has been made from utility area to telephone point.

System Description for IBMS (if applicable and approved by Developer) If developer will maintenance the entire facilities and infrastructure of this mixed used project and hence would like to build in a BMS network for easy of operations and maintenance if BMS is not required then complete system would be manually operated.

The primary nodes under BMS would be:

The common area energy meters

Water Pumps and level controllers of tanks

Fire Fighting system

HVAC equipment

DG sets operations

L.T. System monitoring

STP plant monitoring

AREA ALLOCATIONS FOR ELECTRICAL SYSTEM

Tentative area allocations for the L.T. Panel & DG Sets have been planned at Ground level service area to be allocated by Architect. The Client's Liaison agent to confirm the same as per the local municipal and supply authority requirements and also preferred location among the same.

Area Allocations for the Meter Rooms, ELV room, Electrical & ELV Shafts shall be proposed for future development in the Architectural Layouts.

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ENERGY CONSERVATION/ SAVING METHODS ADAPTED

Based on final confirmation by Client the HVAC to be VRV type, Solar PV cells, LED Lighting and equipment shall be incorporated in Services Drawings as per BEE & ECBC codes / local rules and regulations. However, Safety, Health and Environmental codes shall take precedence.

Equipment Selected for HVAC shall be designated in tenants guidelines to be as per IS 1391 (Part 1) for VRV Split air conditioners to meet IS 1391 (Part 2). Amenities Guideline of Office Tenants it is also proposed Variable refrigerant flow split air conditioners to maximize the efficiency of Electrical power. The power requirements are capped with loads based on VRF equipment inverter based with scroll compressors.

Solar PV unit so as to adapt to sustainable resources thus reducing the utility power consumption. Same should be confirm by client / Architect.

It is planned that lighting design based on use of Commercial area lights, Common area, lift Lobby & external areas would be designed based on LED lights fixture. The effective energy saving due to these fixtures would be approx. 25 % of total Lighting requirements of Common areas. In addition, the entire staircase except designated fire staircases shall be with timer operations (stairwells planned by Architect are with open-able windows for natural ventilation and lighting)

Ventilation is provided with sensors which would sense the IAQ and switch the Fans if the IAQ is not as per standards laid down in ASHRAE 62.1.

COMMENTS BY CONSULTANT (Refer Assumptions)

Client to confirm the location of the Sub-station/ Electrical room, D.G. Sets, LT Panel & Meter Rooms (Ground floor) as per local electricity provider, PWD Electricity rules and regulations.

Client to confirm their consent for the infrastructure available & upgrading at site viz. details of source of power such as HT/LT voltage, supply voltage, available capacity of feeder, location of nearest HT sub-station etc.

Client to confirm the Equipment & amenities requirement Table, for provision of final loads & DG Set back-up arrangements.

Client / Architect to provide Interiors lighting for office/ Shops / Restaurant of building. It is also required from Interior design Architect to provide as per Interior decoration as future requirements. All lighting designs shall then be formulated and finalised.

Client's confirmation required for provisions of Air-conditioning for:

Offices

Commercial shop



HVAC SYSTEM

This report will consider the following HVAC Systems for this development

INTRODUCTION

This basic study is for proposed HVAC/ Ventilation of Commercial Buildings with 56 Offices, 15 Shops and 2 Restaurants. Ventilation system provides the fresh air flow that is required to maintain an acceptable non-odorous atmosphere (by diluting odours) and to dilute the carbon dioxide exhaled.

The quantity and distribution of introduced outside air takes into account infiltration, exhaust and dilution requirements of the building. Proportion of fresh air introduced into a building may be varied to achieve economical operation. When fresh air can provide useful cooling effect, the quantity should be controlled to match the cooling demand.

Ventilation system provides air movement that is necessary to create a feeling of Freshness and avoid discomfort. Accordingly, ventilation system proposed to be installed in these building is by deliver of clean, fresh air to the space served specially the lower ground. This will be achieved by providing the required amount of fresh air to remove totally or to dilute odours, fumes etc by centrifugal fans. The NBC Clause 6.5.1 Table 5 Part 8 Section 3 considers recommended rate of circulation which is selected based on applications as average 12 air changes per hour (ACH) which forms the Basis of design for the purpose of Ventilation and Fire Conditions 30 ACH.

CONCEPT - VENTILATION SYSTEM

DESIGN CONDITION General Criteria

Environmental design conditions in accordance with ASHRAE 90.1,200, Table D-3

Respiration Heat (Btu/Hr) per Person Sensible Heat: 255

Latent Heat: 200

Safety Factor

An overall safety factor of 5% will be used.

Ventilation and smoke removal for Basement Floor

For normal operation the system will be designed for 12 air changes per hour these air changes will be provided for normal operations and 30 ACH under Fire Conditions.

Description of system

Centrifugal fans will be provided to have the required air changes for basement area while Lift shaft will be provided with Tube axial fans for smoke extraction during fire conditions. Toilets & Kitchens/ Pantries will provided with window glass extract fans with required CFM.

The normal operation of the ventilation and exhaust fans will be balanced, Operation will provide for energy conservation purposes, the minimum needed to assure that the required IAQ is met.

IAQ

The Internal air quality shall be shall be monitored by sensor monitoring the level of air quality which would start the normal operation of fans and additional fans in Fire mode.

This system would effectively reduce the energy consumption during night time when the complex is not in operation.

AIR CONDITIONING LOAD DETAILS

Assumed Air-Conditioning to Shops, Office & Restaurants (Ground Floor to Terrace Floor). Considered for: -

Shops – VRV Split type units.

Office - VRV Split type units.

Restaurant VRV Split type units or Modular Package units as applicable.

To prevent any disturbance of the Architectural Elevation of the Building due to inappropriate placement of the Outdoor Units of the Split AC Units Architects should recommended a space for AC Ledges/ spaces, to avoid hassle of routing of the refrigerant & drain pipes later by the occupants, it is recommended to plan & provide the drain piping as well as sleeves for the refrigerant piping for the same. Also, the locations for the Indoor & Outdoor machines shall be clearly indicated in the drawings by architect, and then electrical provisions made accordingly so that the Owners place their units in the designated areas.

In the guideline it is recommended to propose for BEE 5 star units which would also provide energy saving.

Below table considers the AC requirements based on the built-up area however the actual capacities would be guided by application & occupancy which Owners finalize before the construction of such areas (To be confirmed by Client / Architect).

SUMMARY OF AIR-CONDITION HP OF ODU		
SR.NO	DESCRIPTION OF AREA	HP
1	SHOPS	90
2	OFFICES	896
3	RESTAURANT 1 & 2	100
	TOTAL HP	1086

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CODES & STANDARDS

Following STANDARDS and CODES are applicable for the project:

ANSI/ASHRAE STANDARD 40.1-86-2001	Measurements guide
ASHRAE 1991	Terminology of Heating Ventilation Air Conditioning and Refrigeration
ASME STANDARD PTC 19.2-1987 PART II Pressure Measurements	Instruments and apparatus
IEC STANDARD 60038	IEC Standard voltages
IS 4894 – 1991	Centrifugal Fan
SMACNA – 1990	HVAC Systems – Duct Design
SMACNA – 1985	HVAC Air duct leakage test manual
SMACNA – 1989	HVAC duct system inspection guide
SMACNA – 1989	Rectangular industries duct construction
SMACNA – 1984	Energy conservation guidelines
ANSI/ASHRAE-51-1985	Laboratory methods for testing fans for rating



Schedule E LIST OF APPROVED MATERIALS, SUPPLIERS & VENDORS

PREAMBLE:

1) All materials shall conform to relevant technical specifications of Volume-III of the Tender Document. The materials shall be further subjected to tests in the recognized laboratories at the discretion of the PM.
2) Materials bearing appropriate IS marking shall be given preference while selecting for the work. In addition the materials can be purchased from the approved vendors as listed below.
3) In case of materials which are not widely available with IS marking in the market but conform to the technical specifications mentioned in the Tender Documents, the same shall be procured from any of the vendors listed below.
4) Cement for work shall have relevant IS marking and every lot shall be subject to tests in the recognised laboratories.

The list given below is only indicative and not restricted to brand mentioned. PM can approve any other brand subject to verification of the adherence to the relevant technical specifications / standards.

S. No.	MATERIALS	MAKES
1.	Cement	ACC, Rajashree, Ambuja, Vasavdatta, Ultratech.Binani
2.	White Cement	Birla, J.K.
3.	Antitermite Treatment	PCI, Godrej Pidilite, PCI, Godrej, Express Pesticide
4.	Cementitious Additives	As per RMC vendors choise & comfort level. The same shall be detailed in the concrete mixdesign for every grade.
5	GGBS	JSW
	PFA	Ashtech / Dirk India / Tata Power /
	Microsilica	Alcofine / Elkem
6	RMC	RMC / Ultratech / Godrej / Nuvoco Vistas / ACC

S. No.	MATERIALS	MAKES
7.	Reinforcement Steel - Fe500 TMT (CRSD)	SAIL / TISCO / VIZAG / ESSAR
8.	Anchor Fasteners	Hilti, Fisher, Halfen, Mungo
9.	Structural Steel	TISCO, SAIL, RINL, Jindal, Vizag
10.	Mechanical Couplers	Unitech / Utracon / Moment /Dextra
11.	Decking Sheet	JSW / Uttam Galva / CRIL
12.	Shear Studs	JSW / Tata / Interarch
13.	PT Steel (Strands)	Tata, Usha Martin
14.	Grouting Compound	Fosroc / Pidilite / Sika / Sunanda
15.	System Formwork	Doka / Peri / RMD
16.	Formwork Release Agent	Fosroc / BASF / Pidilite
17.	Intumescent Paint	Berger / Akzonobel / Newkem
18.	Vermiculite Cementitious Coating	Grace / Berger / Akzonobel / Newkem
19.	Waterproofing Membrane / Coating	Hitchins / Blue
20.	AAC blocks	Siporex India limited, BILT Industries Pvt. Ltd, Ultratech, Ecolite, Aerocon
21.	Chemical Admixtures & Water proofing Compounds	BASF, Fosroc, MC Bauchemic, Pidilite, CICO, Sunanda Chemicals, Fairmate., Sika
22.	Anticorrosive Paint	Asian, Burger
23.	Gypsum Plaster	Saint-Gobain (Gyproc), Buildcon, Permaboard
24.	Polypropylene Fibers	Fibermesh, Duracem, Eurofaster
25.	Non-shrink compound	Fosroc, BASF, CICO, Pidilite, Sunanda Chemicals
26.	Silicon Sealants	Dow Corning, GE Silicon, Wacker Silicon, Pidilite
27.	Chemical bonding agent	Sunanda, BASF, Fosroc
28.	Chemical Waterproofing	Fosroc, BASF, Pidilite, Sundnda chemicals, SIKA, Nanoflex
29.	Aluminium Extruded Sections / sheet	Jindal, Global, Bhoruka, Hindalco
30.	Glass	Saint Gobain, ASAHI INDIA, Modi float

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S. No.	MATERIALS	MAKES
31.	Paints, Polish	Asian, Berger, ICI, Goodlas Nerolac
32.	Textured paint	Ultra tech, Oikos
33.	Putty	Birla, Shalimar
34.	Plywood	Green Ply, Anchor, Century
35.	Laminate	Formica, Decolam, Greenlam
36.	Vitrified Tiles	Euro, RAK, Kajaria, H.R. Johnson, NITCO, Asian, Red stone
37.	Ceramic tiles	Regency, Kajaria, Johson, Hindustan, Bell NITCO, Red stone
38.	Glazed tiles	1st quality Johnson, Somany, Kajaria
39.	Adhesives & Grouts	Kerakoll, superflex, Bal, Laticrete, BASF, FOSROC
40.	Flush door	Annad, Ravela/Everest
41.	Hardware	Dorma, Hafele Geze, Godrej, Doorset
	ELCETRICAL WORK	
42.	Decorative 3 pin , 15 A 230 V Modular Type socket with control switch	MDS Mosac/ North West/ Clipsal/ Crabtree/ABB/Seimens
43.	Decorative 5A-230V Modular type switches & socket.	MDS Mosac/ North West/ Clipsal/ Crabtree/ABB/Seimens
44.	Electronic Type 300 W Fan Regulator	MDS Mosac/ North West/ Clipsal/ Crabtree/ABB/Seimens
45.	Junction Boxes & Accessories	MDS Mosac/ North West/ Clipsal/ Finswitch/ L&T/Crabtree/ Anchor
46.	Holders & Connectors	MDS Mosac/ North West/ Clipsal/ Crabtree
47.	Iron clad switches	G.E.C/Crompton/Sentinal/stainley/Kew
48.	500V grade PVC insulated copper wire	Finolex / RR Kable/ L&T (FRLS Multistand)/HPL
49.	Miniature Circuit Breaker (10 KA)	Legrand / Heqar/ HPL
50.	MCB Distribution Board	Legrand / Heqar /HPL

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S. No.	MATERIALS	MAKES
51.	Earth leakage circuit breaker / RCCB	Legrand / Heqar /HPL
52.	Telephone tag block	I.T.I or approved make
53.	PVC conduit (1.6 mm thick) (ISI mark)	Garware / Precision / Super Plast
54.	Luminous bell indicator with indicating light & Reset push button.	Anchor /Golite
55.	30A, 250 V D.P switch with rewireable fuse	Legrand / Heger
56.	ACB (Air Circuit Breaker)	LT/ schnider/ Siemens /
57.	Switch Fuse Unit	LT/English Electric (Panel Mounting)/ Schnieder
58.	Ammeter / Voltmeter	AEI / Havells / Rishab (L & T) MECO
59.	Selector Switches	KAYCEE / L &T.
60.	Light fitting	Philips / Wipro .
61.	Ceiling Fan.	Crompton / GEC
62.	MCCB(ICS = 100 % ICU)	L & T / M.G. / Hegar/ MDS
63.	Current Transformer	AE / KAPPA / MECA.
64.	KWH Meter (Electronic with digital display)	GEC / Universal / LT / LK / Jaipur/ Havells
65.	Exhaust Fans	Cromption / GEC / Khaitan.
66.	Casing - Capping	Precision/ Asian.
67.	M.S. Conduit	BEC/AKG/ Steel Kraft
68.	HRC Fuses	L & T / Siemens
69.	Capacitor	Cromption / Meher (LT/LK)
70.	L.T. Cables 1100 V. Grade Arm. Cables	Uniflex / Finolex / Polycab / Avocab/ Havells
71	Change over switch	Helcon / Siemens / Universal/ Havells
72.	A.C. Boxes, Industrial socket with SP	Laygrand / Heger / Hevels

S. No.	MATERIALS	MAKES
	MCB	
73.	Transformer 11 KV/ 433 V	Crompton/ Kirloskar/ Areve/ Voltamp / Hirise, Nagpur/ R.K.Electricals/ Sonali Power Equipemnts
74.	HT Cables XLPE cables	Uniflex/ Torrent/ Nicco/Fort Gloster// Universal / Havells
75.	A.B. Switch/ D.O. fuse	Kiron/ AME
76.	Lighting Arrestor	ELPRO
77.	11 KV LT jointing Kit	Raychem/ M- Seal
78.	Ring Main Unit (HT Switch Fuse Unit)	CG Lucy/ Megawin / Andrew Yule
	PLUMBING WORK	
79.	Sanitary ware and Chromium Plated Fittings	Jaquar / Kohler / Roca /Hindware
80.	Toilet Accessories	Jaquar / Kohler / Viking /Hindware
81.	CPVC Pipes & Fittings	Supreme / Astral / Ashirvad
82.	GI Pipes	Tata / Jindal
83.	UPVC Drainage - Soil, Waste & Vent Piping	Supreme / Astral / Ashirvad
84.	UPVC Rain Water Piping	Supreme / Astral / Ashirvad
85.	R.C.C. Pipes	ISI marked.
86.	R.C.C. chamber covers.	ISI marked
87.	Brass ball valves	Zoloto / GIACOMINI / RB
88.	Check valves	Zoloto / Kirlosar / Advance
89.	Strainers	Zoloto / Sant
90.	Butterfly Valve	Zoloto / Kirlosar
91.	Sluice Valve	Zoloto / Kirlosar

PRAVEEN SOLVED INFRA PVT. LTD. NAGPUR

S. No.	MATERIALS	MAKES
92.	Ball Float Cock	Lehri / Prayag / Normax
93.	Pressure gauge	Wika / H.Guru
94.	Foot Valve With Strainer	Normax / Kirloskar / Zoloto
95.	Water meter	Capstan
96.	Cast Iron pipes and fittings	Neco / Kapilansh
97.	Bore well submersible pumps	Kirloskar / CRI / Shakti
98.	Dewatering pumps for storm water	Grundfos / Wilo
99.	Water Transfer Pumps	Wilo / Lubi
100.	Pressure Switches	Indfoss /Switzer
101.	Fastener	Hilti / Fischer
102.	Pipe Hangers And Threaded Rods	Chilly /GMGR / Hitech
103.	HVAC	Daikin, LG, Toshiba,Mitsubishi only
104.	for Ventilation Fans	Nikotra,Krugger,System air,Ostberg only.
	FIRE FIGHTING WORK	
105.	PUMPS & MOTOR	kirloskar/Lubi/ willo
106.	PIPES	Tata/Jindal/Suryaprakash
107.	WAFER CHECK PLATE	Kartar/Newtech/Normax/Any IS EQUIVALENT
108.	Y STRAINER	Valson/Kartar/Newtech/Arco/Any IS EQUIVALENT
109.	BUTTERFLY VALVE	Newtech/Audco/Kartar/Any IS EQUIVALENT
110.	HYDRANT VALVE	Padma/Arihant/firestone/universal
111.	HOSE REEL DRUM	Padma/Arihant/firestone/universal
112.	BALL VALVE	Audco/zoloto/kartar/Any ISI
113..	RRL HOSE PIPES	Padma/Arihant/firestone/universal

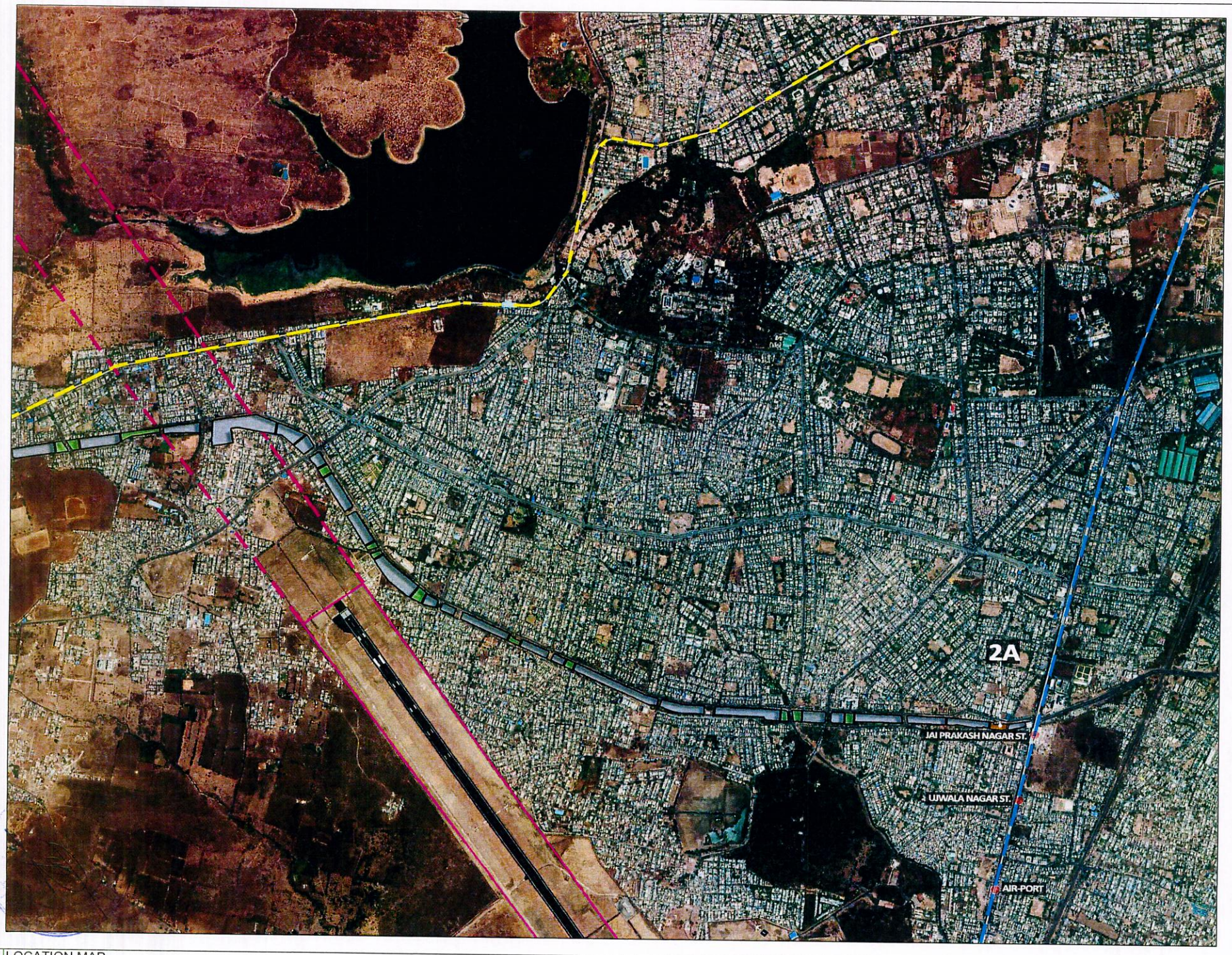
SULVED INFRA PVT. LTD NAGPUR

S. No.	MATERIALS	MAKES
114.	BRANCH PIPE	Padma/Arihant/firestone/universal
115.	HOSE CABINET	Padma/Arihant/firestone/universal
116.	FIRE BRIGADE INLET CONNECTION	Padma/Arihant/firestone/universal
117.	PRESSURE GAUGE	H Guru
118.	PRESSURE SWITCH	Danfoss/Indofus
119.	CABLES	Polycab/RR/Finolex
120.	ELECTRICAL PANEL	L&t (Internal Equipment)
121.	SPRINKLER	HD Fire/Newtech/Any IS EQUIVALENT
122.	FLEXIBLE HOSE	HD Fire/Kartar/Newage//Any IS EQUIVALENT
123	AIR RELEASE VALVE	Newtech/Kartar/Newage/Any Equivalent
124.	EXTINGUISHER	Padma/Arihant/firestone/universal
125.	FIRE ALARM PANEL	Agni/System sensor/Apollo/schrack seconet
126.	SMOKE DETECTOR	
127.	HOOTER	
128.	MANUAL CALL POINT	

PRAFULVED INFRA PVT. LTD. NAGPUR

SCHEDULE F - DRAWINGS

LIST OF DRAWINGS



01. LOCATION MAP
SCALE= NTS

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT
ORANGE CITY STREET PROJECT, NAGPUR
PLOT - 02a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT
ARCHITECT
HAFEEZ
CONTRACTOR

DRAWING TITLE
LOCATION MAP

NORTH

Project No.	Plot No.	SCALE	Rev. No.
C019007	02A	AS SHOWN	R0



OCSP- PLOT 02A

SITE INTRODUCTION:-

THE PLOT HAS AN EXCELLENT LOCATION ON SOUTH OF THE CITY.

IT RUNS PARALLEL TO THE RING ROAD.

THE PLOT IS 5.5KM. LONG WITH VARYING WIDTH OF 45M TO 80M EASTWEST, STRETCHING FROM WARDHA ROAD TILL JAITALA ROAD.

IT IS FLANKED ON THE NORTH BY 24M WIDE ROAD AND ON THE SOUTH 12M WIDE ROAD.

PROJECT BRIEF:-

STITCHING WITH EXISTING URBAN FABRIC.

RESPECT PREVALENT LAND ACQUISITION AND ENCROACHMENT.

COMMERCIAL AND RESIDENTIAL SEGREGATION WITH DIFFERENT AND UNINTERRUPTED ENTRY POINTS AND CIRCULATIONS.

ACTIVATION OF PUBLIC NODES

PROPOSED AND EXISTING INFRASTRUCTURE TO BE INCORPORATED WITH THE DEVELOPMENT.

OPTIMISING COMMERCIAL FEASIBILITY AND OBTAINING MAXIMISED RETAIL VALUE.

SR.NO.	DESCRIPTION	AREA IN SQM
1	PLOT AREA	3365.82
2	PERMISSIBLE FSI 4.0 (AS PER TOD)	13463.28
3	PROPOSED BUILT UP AREA	13363.62
4	PERMISSIBLE BUILDING HEIGHT	42.05
5	PROPOSED BUILDING HEIGHT	42.05M

01. GOOGLE MAP AND PROJECT BRIEF

SCALE:- NTS

REVISION

Revision	Date	Remarks	Prepared	Checked	Approved
R0					

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT HAFEEZ CONTRACTOR

29 BANK STREET, MUMBAI - 400 023. TEL: 2841021

THIS DRAWING IS THE PROPERTY AND COPYRIGHT OF ARCHITECT HAFEEZ CONTRACTOR. IT SHALL NOT BE COPIED OR REPRODUCED IN ANY MANNER WHATEVER AND SHALL BE USED ONLY FOR THE PROJECT ISSUED FOR. THIS DRAWING TO BE REMOVED ON DISPLACEMENT TO THE APPROVAL OF COMPETENT AUTHORITY.

DRAWING TITLE

GOOGLE MAP AND PROJECT BRIEF

NORTH

Project No	Plot No	SCALE	Rev. No.
0019007	02a	AS SHOWN	R0

SR.NO.	DESCRIPTION	AREA IN SQM
1	PLOT AREA	3365.82
2	PERMISSIBLE FSI 4.0 (AS PER TOD)	13463.28
3	PROPOSED BUILT UP AREA	13363.62
4	BALANCE BUILT UP AREA	99.66
5	PERMISSIBLE BUILDING HEIGHT	42.05
6	PROPOSED BUILDING HEIGHT	42.05
GROUND COVERAGE		
1	PERMISSIBLE GROUND COVERAGE(60% PLOT AREA)	2019.49
2	PROPOSED GROUND COVERAGE	1295.47
3	PERCENTAGE OF PROPOSED GROUND COVERAGE	38.48
PARKING STATEMENT		

	TYPE	PARKING REQUIRED	PARKING PROVIDED (INCLUDING 5% VISITOR PARKING)
1	CAR PARKING		
		121	132
		1182	1260
	TOTAL CONSTRUCTION AREA		**19889.53**

RAFULVED INFRA PVT. LTD. NAGPUR

01. AREA CALCULATIONS
SCALE= NTS

GENERAL NOTES

1. THE FOLLOWING SET OF NOTES ARE SPECIFICALLY MADE TO REFERENCE TO CONSTRUCTION.
2. ALL DRAWINGS SHALL BE READ ONLY FOR TENDER PURPOSE.
3. ALL DIMENSIONS FOR BUILDING ARE TO BE TAKEN FROM DRAWINGS ONLY.
4. ALL LEVELS ARE IN METRES.
5. ALL LEVELS INDICATED (+ve) WITH RESPECT TO THE (+) MEAN SEA LEVEL (+) DATUM AS PER SURVEY PLAN AND ARE TO BE TAKEN.
6. DO NOT SCALE DRAWING FOR CONSTRUCTION PURPOSE.
7. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE INDICATED.
8. ALL DISCREPANCIES BETWEEN DRAWINGS AND SITE SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT AND NO WORK SHALL BE CARRIED OUT UNTIL THE DISCREPANCY IS RESOLVED BY THE ARCHITECT.
9. ALL WORK AND CONSTRUCTION SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE LATEST REVISED BUILDING BYE-LAWS AND REGULATIONS OF THE LOCAL BODY.
10. HEIGHT OF BUILDING SHALL BE APPROVED FROM AAI BEFORE COMMENCEMENT OF WORK.
11. ALL LEVELS ARE WITH REFERENCE TO MEAN SEA LEVEL.
12. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
13. ALL DIMENSIONS SHALL BE CHECKED AT SITE BEFORE EXECUTION OF WORK.
14. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS & SUPPORTING DOCUMENTS.
15. ALL BUILDINGS SHALL BE DESIGNED AS PER LATEST NATIONAL BUILDING CODE AND ALL STRUCTURAL DETAILS/DRAWINGS SHALL BE DESIGNED VERTICALLY TO RESIST SEISMIC FORCES AS PER LATEST IS CODES.
16. ALL DRAWINGS SHALL BE APPROVED BY THE LOCAL AUTHORITY AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

REVISION

No.	Date	Remarks	Drawn	Checked	Approved

AGENCY

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR
PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT HAFEEZ CONTRACTOR

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DRAWING TITLE

AREA CALCULATIONS

NORTH

Project No.	Plot No.	SCALE	Drg. No.

SR.No	PARTICULARS	SPECIFICATION	Finishes Schedule No.	Location
1	Masonry work	Concrete Structural and non structural wall with MIVAN type Aluminum shuttering system with grooves as per elevation.	FS-A1	
	External wall	RCC Structural wall & Non Structural wall as per structural design.		
	Internal wall	Light weight AAC block.		
2	Internal Plaster	12mm Thk Cement plaster for wet areas (Toilets / WC). Putty for RCC Structural & Non Structural wall. Gypsum Plaster For AAC blocks masonry work.	FS-A2	
3	External Plaster	Water Proof putty with 10 Years warantee for Residential part being MIVAN type shuttering system. 21-23mm thk Sand faced plaster for other areas (3 Coats)	FS-A3	
4	External Paint	Exterior Weather shield texture paint with 10 years of performance guarantee	FS 31	
5	Drive way	Concrete Road (m-40 Grade)	FS 13	Residential Complex at ground level
8	Pedestrian crossing	Thermo Plastic paint	FS 18	Zebra crossing inside
9	Paver Block	Heavy duty inter locking concrete Grey paver blocks having a strength of 300 kg/Sq.cm. 100x200mm keyblock 60mm thick short blasted	FS 19	Open car parking area at ground level & podium
		60mm thick Coloured, chamfered edge, cement concrete grass paver blocks of having 40N/mm2 compressive strength	FS 20	
		Precast Heavy duty inter locking concrete pavingblocks having a strength of 300 kg/Sq.cm. 100x200mm keyblock 60mm thick short blasted	FS 19	Parking
		Precast Heavy duty inter locking concrete pavingblocks having a strength of 300 kg/Sq.cm. 200x200mm 60mm thick short blasted	FS 24	Plaza
10	Raised Kerb	precast tapering R.C.C. M-20 Semi Barrier type Kerb	FS 21	between parking and softscape area at ground level
11	Half batten kerb	precast tapering R.C.C. M-20 Semi Barrier type Kerb	FS 22	between stilt parking and driveway at podium level
12	Flushed kerb	precast tapering R.C.C. M-20 Semi Barrier type Kerb	FS 23	edges of pathway, seating area
13	Stamped Concrete	Coloured Trimix Concrete	FS 12	Stilt parking
14	Rubber flooring	The size of EPDM Granules is 1mm to 4mm The base will be SBR Buffing size 0.8mm to 2.36mm, well compacted with BASF PU binder at ratio of 18% by weight of the SBR,the layer above SBR, i.e EPDM size 1 to 4mm will be well compacted with PU Binder at ratio 18% by weight of EPDM. *25 MM Thick SBR with EPDM Insitu Rubber Flooring for Outdoors. *Base layer of 19mm SBR (Buffing) with 6mm EPDM Top Layer Insitu Rubber Flooring	FS 35	Landscape Kids play area
15	pebbelino tile	pebblino tiles with 4.5N/mm2 compressive strength, 300x300mm in size and 25mm thick	FS 33	reflexology pathway
16	cladding for seat and top cladding of planter wall	Grey granite river washed finish, 18mm thick	FS 34	

	FLOOR / LOCATION	CEILING		WALLS		FLOORING		SKIRTING / DADO	
		PLASTER TYPE	PAINTING	PLASTER TYPE	PAINTING INT.	MATERIAL	THK. x SIZE	MATERIAL	THK. x HT.
1	GROUND								
	Staircase	2mm Thk Putty	(FS 30) Acrylic paint	Putty on RCC and Gypsum Plaster on masonry.	(FS 30) Acrylic paint	Landing - (FS 07) Kota Stone Tread - (FS 09)1.5X0.3M Kota stone (One piece) Riser - (FS 10)Kota Stone	25mm to 30mm thick	(FS 29) Oil Paint as per approved specs	Refer Architecture detail
	Entrance lobby ground floor	6 - 8 mm Gypsum Plaster	(FS 30) Acrylic paint	Putty on RCC and Gypsum Plaster on masonry.	(FS 30) Acrylic paint	(FS 05A) Marble Flooring pattern 50% of lobby area, (FS 01) Double charged Vitrified tile 50% of lobby area	18mm to 20mm thick Marble, 600x600mm Vitrified tiles	(FS 26A) 18-20 mm Marble Skirting, (FS 06A) Marble Lift Jam Dado, 25mm patti cladding above Vitrified tile, (FS 02) Double charged Vitrified tile 600mm above Skirting.	(FS 26A) 100mm Ht, (FS 06A) 100mm wide
	Lift lobby	2mm Thk Putty	(FS 30) Acrylic paint	Putty on RCC Gypsum Plaster on masonry	(FS 30) Acrylic paint	(FS 05A) Marble Flooring pattern 80% of lobby area, (FS 01) Double charged Vitrified tile 20% of lobby area	18mm to 20mm thick Marble, 600x600mm Vitrified tiles	(FS 26A) Marble Skirting, (FS 06A) Marble Lift Jamb, Dado, 25mm patti cladding above Vitrified tile, (FS 02) Double charged Vitrified tile 600mm above Skirting.	(FS 26A) 100mm Ht, (FS 06A) 100mm wide
	Toilet	Cement Plaster	(FS 30) Acrylic paint	Cement Plaster		(FS 03) Anti-skid Ceramic tile	300mm x 300mm	(FS 04) 300mm x 450mm Glazed Ceramic tile, Up to Lintel height	2200mm Lintel Height
	Shafts & Common area (Clinic & IPDs)			Cement Plaster	(FS-32) White wash	(FS 16) 50 mm thk IPS			
2	TYPICAL FLOORS								
	Staircase	2mm Thk Putty	(FS 30) Acrylic paint	Putty on RCC Gypsum Plaster on masonry	(FS 30) Acrylic paint	Landing - (FS 07) Kota Stone Tread - (FS 09)1.5X0.3M Kota stone (One piece) Riser - (FS 10)Kota Stone	25mm to 30mm thick	(FS 08) 25-30 mm Kota stone	100mm Ht.
	Lift Lobby & Passage area	2mm Thk Putty	(FS 30) Acrylic paint	Putty on RCC Gypsum Plaster on masonry	(FS 30) Acrylic paint	(FS 05) Granite Flooring pattern 30% of lobby area, (FS 01) Double charged Vitrified tile 70% of lobby area	18mm to 20mm thick Granite, 600x600mm Vitrified tiles	(FS 26) Granite Skirting, (FS 06) Granite Lift Jamb, Dado, 25mm patti cladding above Vitrified tile, (FS 02) Double charged Vitrified tile 600mm above Skirting.	(FS 26) 100mm Ht, (FS 06) 100mm wide
	Toilet	Cement Plaster	(FS 30) Acrylic paint	Cement Plaster		(FS 03) Anti-skid Ceramic tile	300mm x 300mm	(FS 04) 300mm x 450mm Glazed Ceramic tile, Up to Lintel height	2200mm Lintel Height
	Shafts & Common area (Clinic & IPDs)			Cement Plaster	(FS-32) White wash	(FS 16) 50 mm thk IPS			
3	TERRACE								
	Open Terrace					(FS 25) China Mosiac			
	Covered Terrace	Cement Plaster	(FS 30) Acrylic paint	Cement Plaster	(FS 30) Acrylic paint	(FS 25) China Mosiac			
4	COMMERCIAL								
	Retail Shop	6 - 8mm Gypsum Plaster	(FS 30) Acrylic paint	Gypsum Plaster	(FS 30) Acrylic paint	(FS 01) Double charged Vitrified tile	600mm x 600mm	(FS 02)Double charged Vitrified tile	100mm Ht.
	Toilet	Cement Plaster	(FS 30) Acrylic paint	Cement Plaster		(FS 03) Anti-skid Ceramic tile	300mm x 300mm	(FS 04) 300mm x 450mm Glazed Ceramic tile. Up to Lintel height	2200mm Lintel Height
5	Security Cabin								
	Rooms	2 mm Thk Putty	(FS 30) Acrylic paint	Putty / Gypsum Plaster	(FS 30) Acrylic paint	(FS 03) Anti-skid Ceramic tile	300mm x 300mm	(FS 02)Double charged Vitrified tile	100mm Ht.
	Toilet	Cement Plaster	(FS 30) Acrylic paint	Cement Plaster		(FS 03) Anti-skid Ceramic tile	300mm x 300mm	(FS 04) 300mm x 450mm Glazed Ceramic tile. Up to Lintel height	2200mm Lintel Height

01. FINISHES SCHEDULE

SCALE: N.T.S.

Sr no	Finishes Schedule No.	PARTICULARS / Material	THK. x SIZE	Location
1	FS 01	Double charged Vitrified tile	600mm x 600mm	Internal Habitable rooms
2	FS 02	Double charged Vitrified tile	100mm Ht	Internal Habitable rooms Skirting
3	FS 03	Anti-skid Ceramic tile	300mm x 300mm	Wc & Bath
4	FS 04	Glazed Ceramic tile	300mm x 450mm	Wc & Bath
5	FS 05	Granite flooring	18-20 mm thk	Lobby
6	FS 05A	Marble flooring	18-20 mm thk	Lobby
7	FS 06	Granite Dado	18-20 mm thk	Lobby
8	FS 06A	Marble Dado	18-20 mm thk	Lobby
9	FS 07	Kota Stone flooring	25-30mm thk	Staircase Landing Level
10	FS 08	Kota Stone Skirting	25-30mm thk	Staircase
11	FS 09	Kota Stone Treads	25-30mm thk	Staircase
12	FS 10	Kota Stone Risers	25-30mm thk	Staircase
13	FS 11	M30 grade cement concrete with trimmix treatment	100mm thk	podium driveway and basketball court and skating ring
14	FS 12	Coloured Trimix Concrete	25mm to 50 mm thk	Stilt parking
15	FS 13	Concrete Road (M-40 Grade)		Residential Complex at ground level
16	FS 14	White / Green marble Sill	18-20 mm thk	internal rooms Window
17	FS 15	600mm wide Granite Kitchen Platform	18-20 mm thk	Kitchen
18	FS 16	IPS Flooring		Shaft & Duct
19	FS 18	Thermo plastic paint		Zebra crossing Inside plot, parking outlines
20	FS 19	Paver Blocks	100x200mm	Parking
21	FS 20	Coloured chamfered edge Cement concrete grass paver blocks	60mm thk	Parking
22	FS 21	Raised Kerb precast tapering R.C.C. M-20 Semi Barrier type Kerb		between parking and softscape area at ground level
23	FS 22	Half batten kerb precast tapering R.C.C. M-20 Semi Barrier type Kerb		between stilt parking and driveway at ground level
24	FS 23	Flushed kerb precast tapering R.C.C. M-20 Semi Barrier type Kerb		edges of pathway, seating area
25	FS 24	short blasted Heavy duty inter locking concrete Gray pavingblocks	200x200mm	Drop off Area, Plaza
26	FS 25	China Mosaic		Building Terrace
27	FS 26	Granite Skirting		Lobby
28	FS 26A	Marble Skirting		Lobby
29	FS 27	Granite (toilet door & window)		Wc & Bath
30	FS 28			
31	FS 29	Oil Paint		Staircase
32	FS 30	Acrylic paint (Internal Paint)		All internal habitable rooms
33	FS 31	Wathearproof Acrylic emulsion Paint (External Paint)		External paint
34	FS 32	Semi Acrylic paint		Shaft & Duct
35	FS 33	Pebbelino tile	300x300mm, 25mmthk	reflexology pathway
36	FS 34	granite riverwashed finish	18-20 mm thk	cladding for seat and top cladding of planter wall
37	FS 35	Rubber flooring	1mm - 4mmthk	Landscape Kids play area

02 FINISHES SCHEDULE

SR.NO	PARTICULARS	SPECIFICATION
1	Windows	
	Tenament Unit Window	Sliding Windows : Minimum 1.5mm thick Aluminum 25 micron anodized, bottom drain section with (FS 14)white / Green marble Frame all around the opening. 5mm thick clear float glass, aluminium shall conform to IS 63400 WP. Aluminium sections shall be of Jindal / Hindalco / Gujarat Aluminium or equivalent approved, for Toilets, WC, Kitchen
	Staircase Window	Operable Windows : Minimum 1.5mm thick Aluminum 25 micron anodized, bottom drain section with (FS 14) white / Green marble Frame all around the opening , 5mm thick clear float glass, aluminium shall conform to IS 63400 WP. Aluminium sections shall be of Jindal / Hindalco / Gujarat Aluminium or equivalent approved, for Toilets, WC, Kitchen
2	Main Doors & Shutters	1 hour Fire rated Wooden door of Tufwud make (conforming to IS 3614 Part 2) with 2 coats of intumescent paint of minimum 200 micron and veneer finish on both sides with hard wood door double rebated frame & provision of safety door
	Internal Room Doors	32mm thick Wooden flush door shutter with laminate finish and SS fittings and fixtures with pressed metal frame
	WC & Bath room Doors	FRP 28mm thick door shutter with laminate finish and brass chromium plated fittings and fixtures and with (FS 27) Granite frame
	Facilities Room Doors	1 hour Fire rated Wooden door with metal frame (conforming to IS 3614 Part 2) with 2 coats of intumescent paint of minimum 200 micron and veneer finish on both sides with hard wood door double rebet frame & provision
3	Kitchen Platform	Platform with (FS 15) Granite stone (18-20mm thick) top with 40mm thick kadappa stone base and sandwich vertical kadappa stone support with SS Sink
4	WC Fixture	EWC floor mounted
5	Bath Fixtures	Concealed CPVC pipes and CP fittings of Seiko or equivalent makes, wall mixer etc
6	Railing / Jali	
	Staircase Railing	750mm height 75mm thk RCC paradi along with MS hand rail
	Entrance gate	MS Jali / GRC jali
	Dry Balcony Railing	MS Jali / GRC jali
	Typical lobby opening Jali	MS Jali / GRC jali
	Toilet Shaft jali	MS Jali / GRC jali
	Ground Floor Lobby jali	MS Jali / GRC jali
	Typical Floor Lobby Jali	MS Jali / GRC jali
7	Boundary Wall	(GD_1) Solid Concrete block masonry with Plaster / paint and Metal jali above
8	Water proofing	
	Bath & WC WP	As per approved specs
	Terrace WP	Hybrid Polyurea polyurethane liquid cold applied elastomeric seamless membrane
	Water Tanks WP	Antibacterial food grade coatings polydee MC
	Chajja WP	As per approved specs
	Lift Pit WP	High Density Polyethylene Membrane
	STP WP	High Density Polyethylene Membrane
9	Additional Amenities	Lofts in Kitchen and Bed room. Cupboard space in Hall and bed room. Niche below Windows in Hall and Bed room

03 FINISHES SCHEDULE AND SPECIFICATIONS

	Notes
1	The general detail tags such as (GD-1 , GD -2 , etc) all such details will be found on sheets with drawing number : OCSP_06_AR_005
2	Tags on site layout such as (T1, T2, etc.) to be read as Tower 1, Tower 2 respectively.
3	Tags on site layout such as (G+P+PS+11) to be read as Ground + Podium + Podium stilt + Number of floors.
4	For Ground floor plan of each building refer site layout. The ground floor in floor plans is typical and indicative.
6	MEP drawing and architectural site layouts may have discrepency regarding placement of services the length of routing will still be the same.
7	The MEP infra is made consireding flat ground and may change as per site conditions.
8	The detail drawings are bound to vary as per structural requirements. The provided drawings are made typical considering 150 mm external and internal wall thickness.
9	For sizes/ dimensions of columns and structural members refer structural drawings.
10	For MEP and services related details refer MEP of drawings.
11	Abbreviations used in drawing numbers are as follows: STR : Structural ARC : Architectural MEP : Mechanical, Electrical, Plumbing and Fire Fighting LAN : Landscape EL :Electrical PL : Plumbing

GENERAL NOTES

WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	[illegible]	[illegible]	[illegible]	[illegible]
W2	[illegible]	[illegible]	[illegible]	[illegible]
W3	[illegible]	[illegible]	[illegible]	[illegible]
W4	[illegible]	[illegible]	[illegible]	[illegible]
W5	[illegible]	[illegible]	[illegible]	[illegible]

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	[illegible]	[illegible]	-	[illegible]
D1	[illegible]	[illegible]	-	[illegible]
FD1	[illegible]	[illegible]	-	[illegible]

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	[illegible]	[illegible]	-	[illegible]
GZ2	[illegible]	[illegible]	-	[illegible]
GZ3	[illegible]	[illegible]	-	[illegible]
GZ4	[illegible]	[illegible]	-	[illegible]

KEY PLAN

REVISION

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

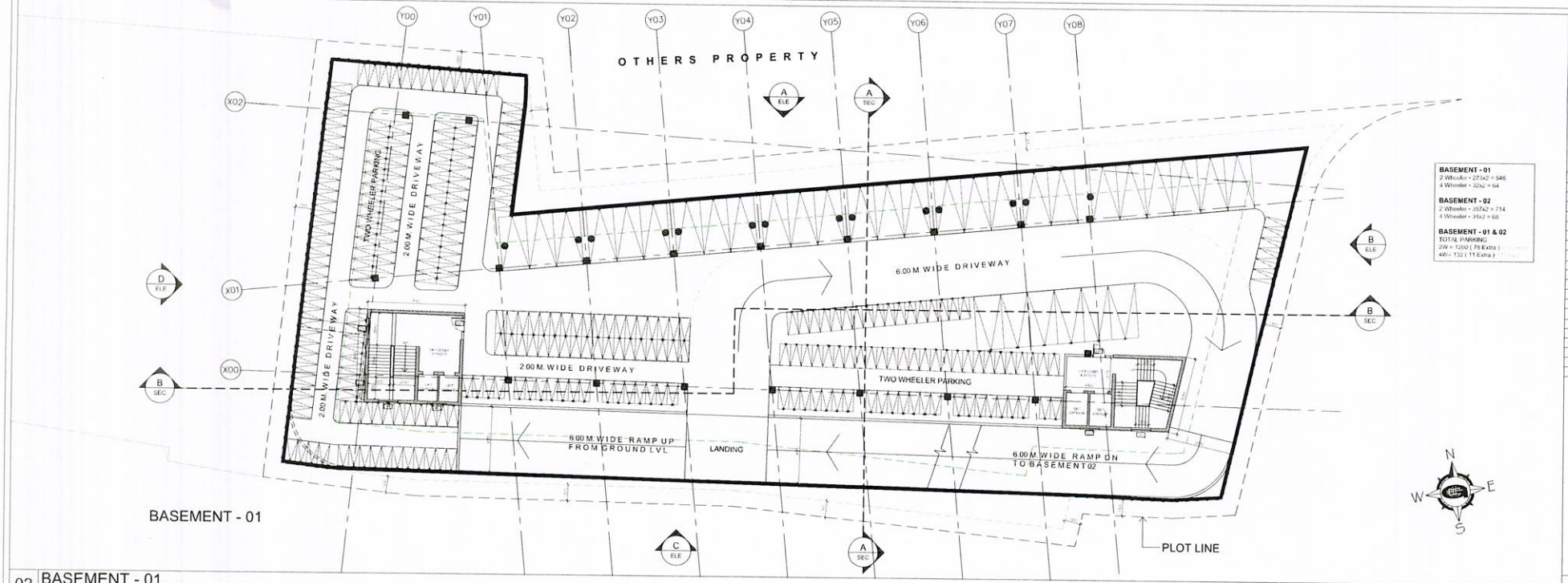
DESIGN CONSULTANT

ARCHITECT HAFEEZ CONTRACTOR

DRAWING TITLE

GENERAL NOTES

Project No	Plot No	SCALE	Rev. No.
001900/	07a	AS SHOWN	R0

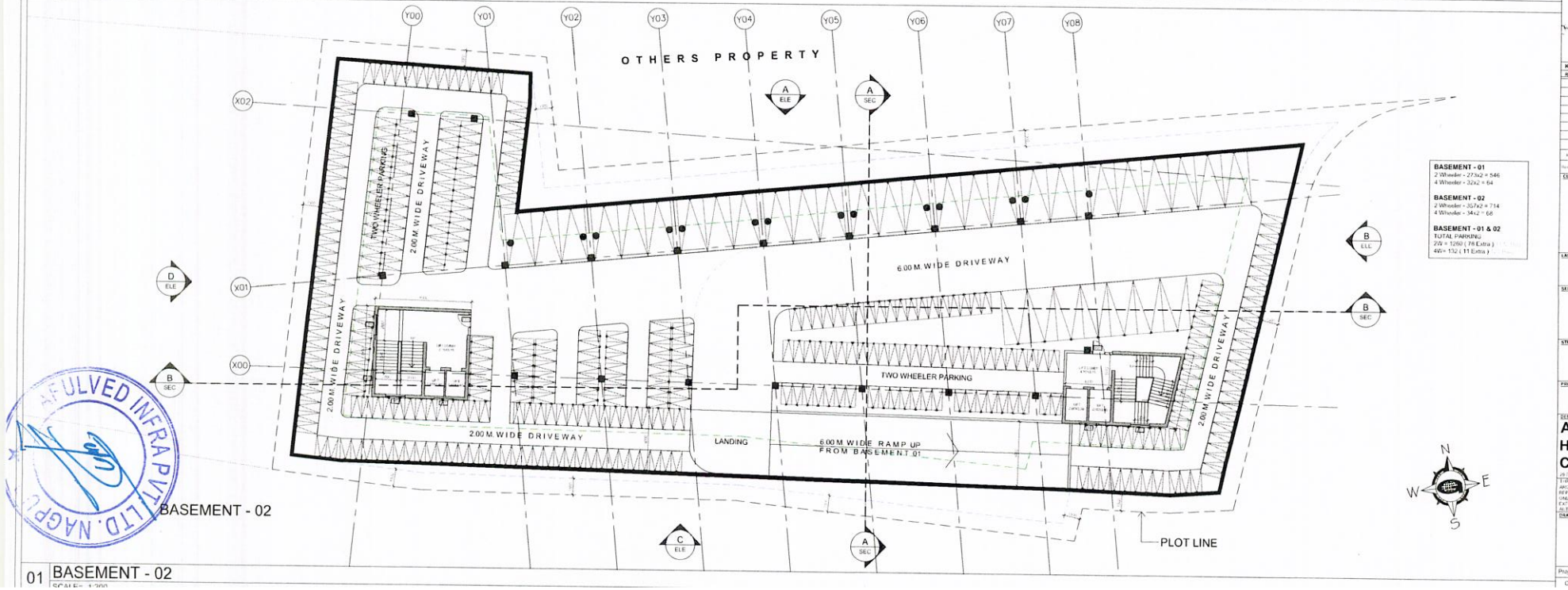


BASEMENT - 01
2 Wheeler - 273x2 = 546
4 Wheeler - 32x2 = 64

BASEMENT - 02
2 Wheeler - 357x2 = 714
4 Wheeler - 34x2 = 68

BASEMENT - 01 & 02
TOTAL PARKING
2W = 1260 (78 Extra)
4W= 132 (11 Extra)

02 BASEMENT - 01
SCALE= 1:200



BASEMENT - 01
2 Wheeler - 273x2 = 546
4 Wheeler - 32x2 = 64

BASEMENT - 02
2 Wheeler - 357x2 = 714
4 Wheeler - 34x2 = 68

BASEMENT - 01 & 02
TOTAL PARKING
2W = 1260 (78 Extra)
4W= 132 (11 Extra)

01 BASEMENT - 02
SCALE= 1:200

GENERAL NOTES

THE TEAM ARCHITECT HEREIN SPECIFICALLY MAKES REFERENCE TO ARCHITECT HAFEEZ CONTRACTOR.

1. ALL DRAWINGS SHALL BE READ ONLY FOR TENDER PURPOSE
2. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED
3. ALL LEVELS ARE IN METERS
4. ALL LEVELS ARE RELATED AND DIMENSIONS ARE IN MILLIMETERS
5. CONTRACTOR SHOWN FOR INDICATION
6. ALL INTERIORS AND EXTERIOR FINISHES SHOWN FOR INDICATION
7. ALL DIMENSIONS AND LEVELS SHALL BE ADJUSTED TO BE AS PER NAGPUR MUNICIPAL CORPORATION
8. HEIGHT OF BUILDING SHALL BE APPROVED FROM AN BEFORE COMMENCEMENT OF WORK
9. IF FOR ANY DRAWING PROCESS SHOWING OR DESIGN OR NOTES OF ARCHITECT THEN IN CASE PROCESS OF BEFORE
10. ALL OPEN SPACES IN THE PROPOSED SHALL STAND OUTSIDE SITE PLOT BOUNDARIES OR UPON SPACES BETWEEN BUILT STRUCTURES SHALL BE CROSS-VERIFIED WITH THE RESPECTIVE APPROVAL ALONG WITH ATTACH FROM TO COMMENCEMENT OF CONSTRUCTION

WINDOW SCHEDULE

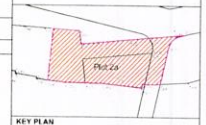
NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1.800	2.100	0.900	[illegible]
W2	2.000	2.700	0.900	[illegible]
W3	1.800	2.000	0.900	[illegible]
W4	2.000	2.000	0.900	[illegible]
W5	2.000	2.000	0.900	[illegible]

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	2.000	2.700	-	[illegible]
D1	2.000	2.700	-	[illegible]
FD1	1.200	2.700	-	[illegible]

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	6.000	7.700	-	[illegible]
GZ2	5.000	7.700	-	[illegible]
GZ3	1.800	7.700	-	[illegible]
GZ4	1.200	7.700	-	[illegible]



KEY PLAN

REVISION

No.	Date	Revision	Drawn	Checked	Approved

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT HAFEEZ CONTRACTOR

29 MAIN STREET, MUMBAI - 400 025. TEL. 2661820

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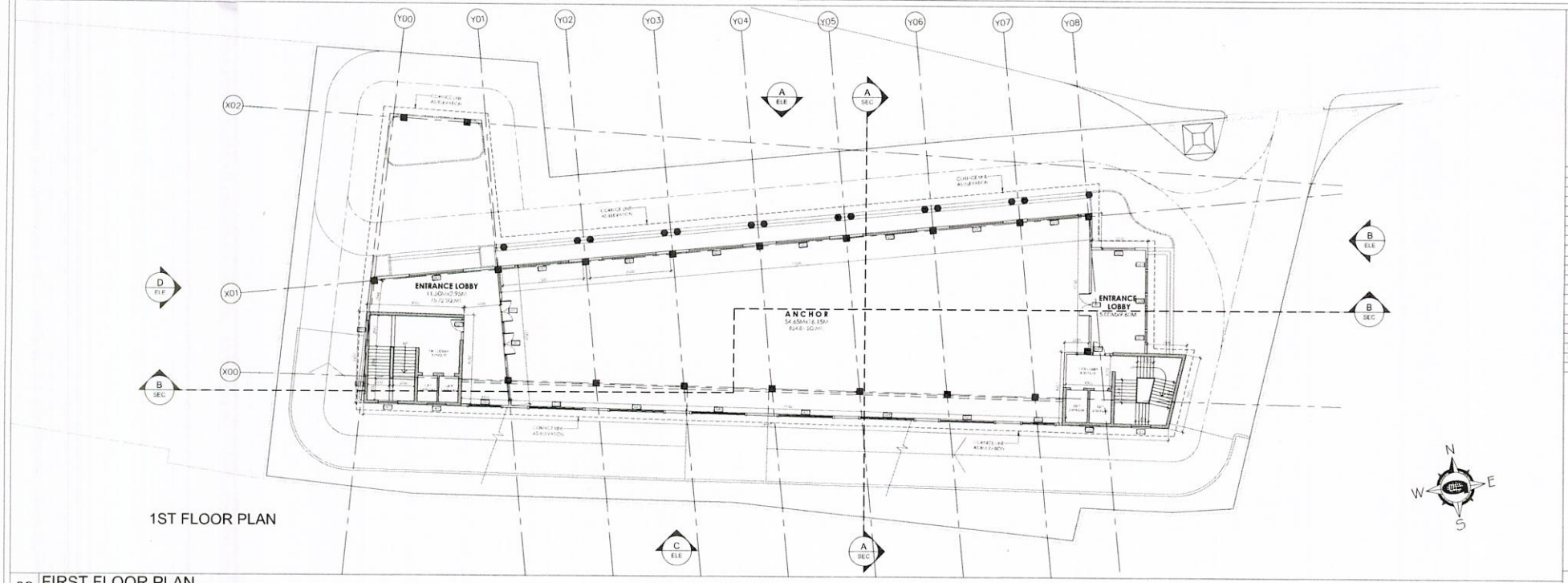
DRAWING TITLE

BASEMENT - 01 & BASEMENT - 02

NORTH

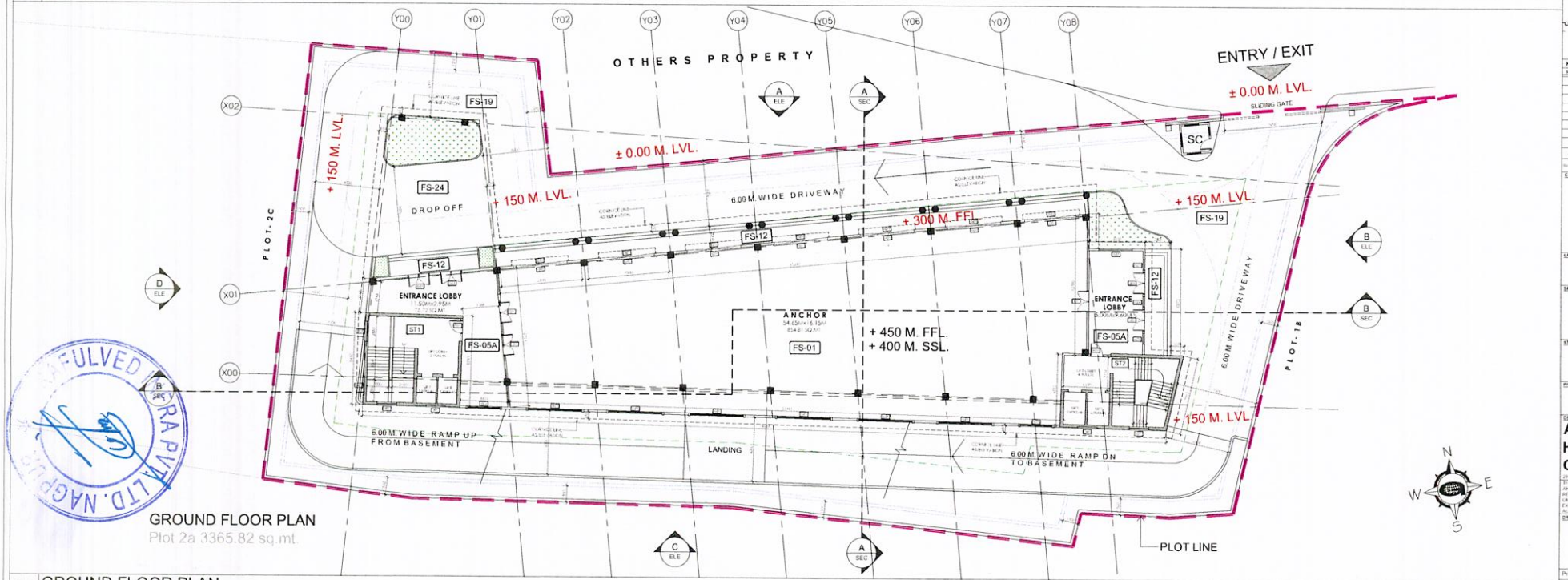
Project No.	Plot No.	SCALE	Rev. No.
0015007	02a	AS SHOWN	R0

AFULVED INFRA PVT. LTD. NAGPUR



1ST FLOOR PLAN

02 FIRST FLOOR PLAN
SCALE= 1:200



GROUND FLOOR PLAN
Plot 2a 3365.82 sq.mt.

01 GROUND FLOOR PLAN
SCALE= 1:200

GENERAL NOTES

THE TERM ARCHITECT HEREIN SPECIFICALLY MAKES REFERENCE TO ARCHITECT HAFEEZ CONTRACTOR.

1. ALL DRAWINGS SHALL BE READ ONLY FOR TENDER PURPOSE
2. ALL DIMENSIONS ARE MEASURED IN ... UNLESS OTHERWISE SPECIFIED
3. ALL DIMENSIONS ARE ...
4. ALL LEVELS ... FOR FINISHING, SPECIFICATION AND GENERAL DETAILS & GENERAL FINISHING SPECIFICATION DRAWING SHEET NO. ...
5. ... DIMENSIONS ARE INDICATED
6. ALL BUILDINGS AND OPENING ... SHOWN ... OF ARCHITECT ... AS PER DESIGN AND MASTER PLAN OF ARCHITECT
7. ... ALL BUILDINGS TO BE AS PER NAGPUR MUNICIPAL CORPORATION
8. HEIGHT OF BUILDING SHALL BE APPROVED FROM AN ... CONSTRUCTION OF ARCHITECT
9. IF ... ARCHITECT ... NOT ... OF ARCHITECT ...
10. ALL ... SHALL BE CONSIDERED ... SITE PLOT BOUNDARIES OR OPEN SPACES BETWEEN BUILT STRUCTURES SHALL BE CONSIDERED WITH THE RESPECTIVE APPROVAL AS ... AT LATE TIME ... COMMENCEMENT OF CONSTRUCTION

WINDOW SCHEDULE

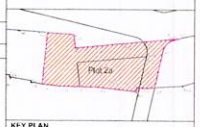
NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1.800	2.100	0.900	[illegible]
W2	2.000	2.750	0.850	[illegible]
W3	1.800	2.000	0.900	[illegible]
W4	2.000	2.500	0.450	[illegible]
W5	2.000	2.300	0.420	[illegible]

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	2.000	2.400	-	[illegible]
D1	1.000	2.100	-	[illegible]
FD1	1.200	2.250	-	[illegible]

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	5.000	7.100	-	[illegible]
GZ2	3.000	7.100	-	[illegible]
GZ3	1.000	7.100	-	[illegible]
GZ4	1.200	7.100	-	[illegible]



KEY PLAN

REVISION

Revision	Date	Remarks	Prepared	Checked	Approved
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT HAFEEZ CONTRACTOR

29 BANK STREET, MUMBAI - 400 023. TEL: 2848600

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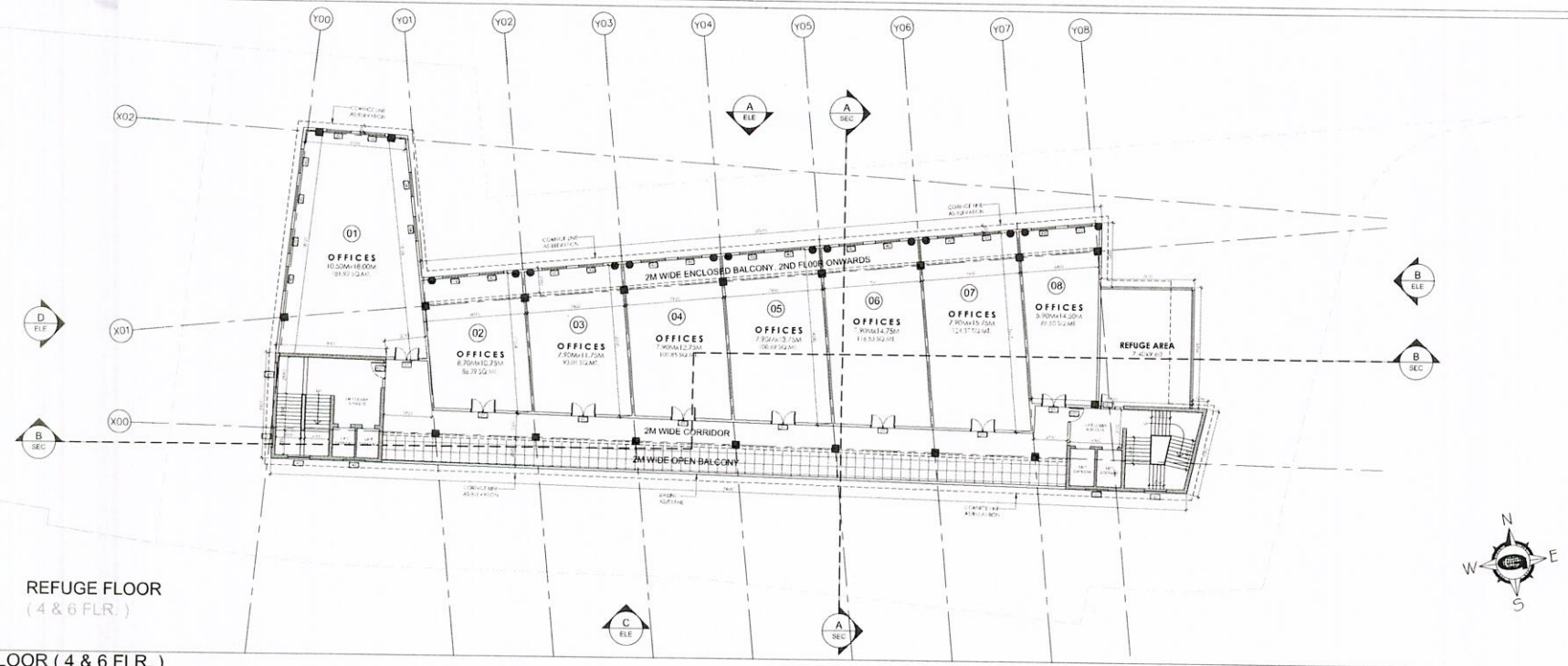
DRAWING TITLE

GROUND FLOOR & 1ST FLOOR PLAN

NORTH

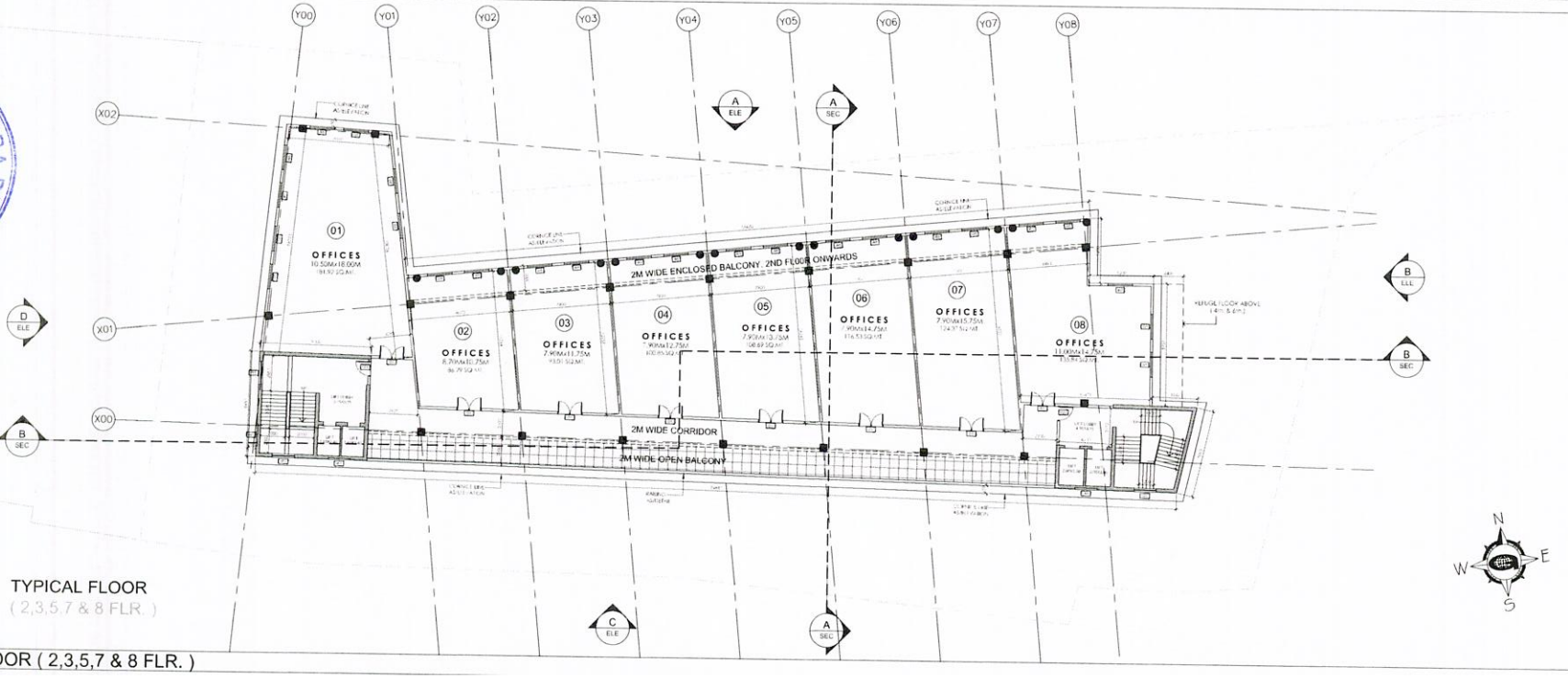
Project No	Plot No	SCALE	Rev. No.
Q01b007	87a	AS SHOWN	R0

Drawing No. | Sheet No.



REFUGE FLOOR
(4 & 6 FLR.)

02 REFUGE FLOOR (4 & 6 FLR.)
SCALE= 1:200



TYPICAL FLOOR
(2,3,5,7 & 8 FLR.)

01 TYPICAL FLOOR (2,3,5,7 & 8 FLR.)
SCALE= 1:200

DISSOLVED INFRA PVT. LTD. NAGPUR

GENERAL NOTES

THE CONSTRUCTION SHALL BE STRICTLY AS PER THE APPROVED PLANS AND AS PER THE DIRECTIONS OF THE ARCHITECT / ENGINEER-IN-CHARGE.

1. ALL DRAWINGS SHALL BE READ ONLY FOR RENDER PURPOSE.
2. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
3. ALL LEVELS ARE IN METERS.
4. ALL CONSTRUCTION SHALL BE AS PER THE LATEST BUILDING BYE-LAWS.
5. FOR BUILDING SPECIFICATION AND GENERAL DETAILS & GENERAL FINISHING SPECIFICATION DRAWING SHEET NO. CONSTRUCTION.
6. COMMON POSITION SHOWN AS INDICATIVE.
7. ALL DIMENSIONS, AREAS & FINAL CALCULATIONS SHALL BE SUBJECT TO ACTUAL MEASUREMENTS AT SITE AND ARE NOT TO BE SCALED OR ASSUMED IN ANY OF THE SAID ARRANGEMENTS.
8. ELEVATION AND CONSTRUCTION OF ALL BUILDINGS ARE AS PER NAGPUR MUNICIPAL CORPORATION.
9. ABOVE OF BUILDING SHALL BE APPROVED FROM AN BEFORE COMMENCEMENT OF WORK.
10. IF ERROR OR DISCREPANCIES ARE NOTICED ON SITE OR IN THE DRAWINGS, THE SAME SHALL BE BROUGHT TO NOTICE OF ARCHITECT / ENGINEER-IN-CHARGE IMMEDIATELY IN WRITING AND WORK IN THE AFFECTED AREA SHALL BE STOPPED IMMEDIATELY.
11. ALL PLOT BOUNDARIES, ROAD WIDTHS, LEVELS, SETBACKS AND OTHER SITE FEATURES SHOWN ON THE DRAWINGS ARE BASED ON INFORMATION PROVIDED BY THE CLIENT. THE CONTRACTOR SHALL VERIFY ALL SUCH DIMENSIONS AND CONDITIONS AT SITE BEFORE COMMENCING CONSTRUCTION. ANY DISCREPANCIES FOUND SHALL BE REPORTED TO THE ARCHITECT / ENGINEER-IN-CHARGE IMMEDIATELY. NO CONSTRUCTION SHALL BE CARRIED OUT IN THE AFFECTED AREA UNTIL THE DISCREPANCY IS RESOLVED IN WRITING.
12. ALL PLOT BOUNDARIES, ROAD WIDTHS, LEVELS, SETBACKS AND OTHER SITE FEATURES SHOWN ON THE DRAWINGS ARE BASED ON INFORMATION PROVIDED BY THE CLIENT. THE CONTRACTOR SHALL VERIFY ALL SUCH DIMENSIONS AND CONDITIONS AT SITE BEFORE COMMENCING CONSTRUCTION. ANY DISCREPANCIES FOUND SHALL BE REPORTED TO THE ARCHITECT / ENGINEER-IN-CHARGE IMMEDIATELY. NO CONSTRUCTION SHALL BE CARRIED OUT IN THE AFFECTED AREA UNTIL THE DISCREPANCY IS RESOLVED IN WRITING.

WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1.800	1.200	0.900	
W2	2.340	1.200	0.900	
W3	1.800	2.850	0.900	
W4	2.340	2.850	0.900	
W5	2.340	2.850	0.900	

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	3.960	2.850	---	
D1	0.900	2.250	---	
FD1	1.200	2.250	---	

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	3.960	2.100	---	
GZ2	3.960	2.700	---	
GZ3	1.800	2.700	---	
GZ4	1.200	2.700	---	



KEY PLAN

REVISION

No	DATE	DESCRIPTION	DR	CH	APP
Number	Date	Remarks	Drawn	Check	Approved

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR.
PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT
HAFEEZ
CONTRACTOR

29 MANI STREET, MUMBAI - 400 015. TEL: 2841520

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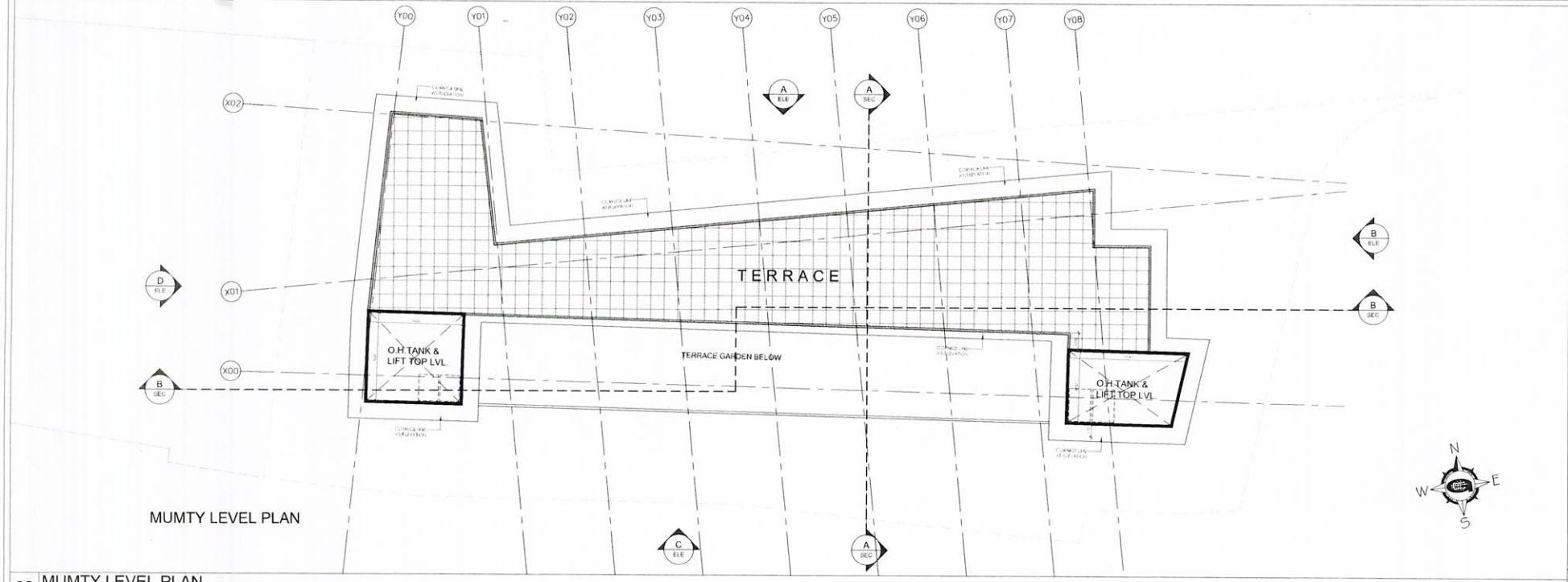
DRAWING TITLE

TYPICAL FLOOR
(2,3,5,7 & 8 FLR.)
REFUGE FLOOR
(4 & 6 FLR.)

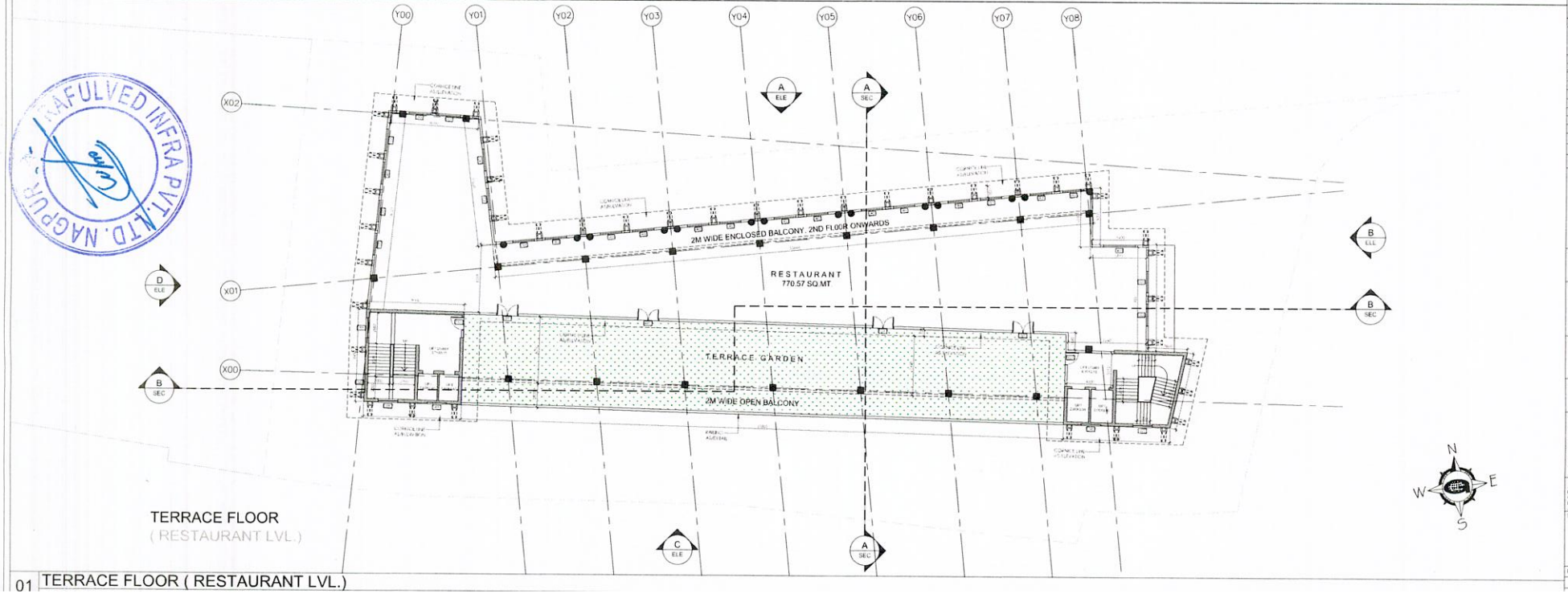
NORTH

Project No	Plot No.	SCALE	Rev. No.
D01/NMC/	2a	AS SHOWN	00



MUMTY LEVEL PLAN

02 MUMTY LEVEL PLAN
SCALE= 1:200



TERRACE FLOOR
(RESTAURANT LVL.)

01 TERRACE FLOOR (RESTAURANT LVL.)

GENERAL NOTES

THE TERMINAL ARCHITECT HEREIN SPECIFICALLY MAKES REFERENCE TO ARCHITECT HAFEEZ CONTRACTOR.

1. ALL DRAWINGS SHALL BE READ ONLY FOR TENDER PURPOSE.
2. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
3. ALL LEVELS ARE IN METERS.
4. ALL LEVELS INDICATED ARE UNFINISHED LEVEL UNLESS SPECIFIED.
5. FOR FINISHING SPECIFICATION AND GENERAL DETAILS, A GENERAL FINISHING SPECIFICATION DRAWING SHEET NO. [illegible] SHOULD BE REFERRED.
6. COLUMN POSITION SHOWN ARE INDICATIVE.
7. ALL BUILDINGS ABOVE 1 HOUR LEVEL SHOULD HAVE MEDIUM SIZE LIFT AND WHEELCHAIR ACCESS AS PER DESIGN AND MASTER PLAN OF ARCHITECT.
8. DESIGN AND CONSTRUCTION OF ALL BUILDINGS TO BE AS PER NAGPUR MUNICIPAL CORPORATION.
9. HEIGHT OF BUILDING SHALL BE APPROVED FROM AN EXPERIENCE MANAGEMENT OF ARCHITECT.
10. IF ANY MAJOR DESIGN PROBLEM ARE NOTICED, DESIGN DRAWING TO NOTIFY OF ARCHITECT AND REVISE PROCESS OF DESIGN.
11. ALL OPEN SPACES SHOWN IN PROPOSED SHEET STRUCTURES TO SITE. PLOT BOUNDARIES OR OPEN SPACES BETWEEN BUILT STRUCTURES SHALL BE CROSS-VENTED WITH THE RESPECTIVE APPROVAL AUTHORITY AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

WINDOW SCHEDULE

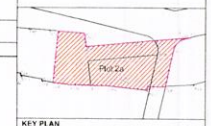
NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1,800	2,100	0.900	[illegible]
W2	2,400	2,700	0.450	[illegible]
W3	1,800	1,800	0.900	[illegible]
W4	2,400	2,700	0.150	[illegible]
W5	2,400	2,300	0.450	[illegible]

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	2,400	2,700	-	[illegible]
D1	2,400	2,700	-	[illegible]
FD1	1,200	2,200	-	[illegible]

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	5,000	7,700	-	[illegible]
GZ2	5,000	7,700	-	[illegible]
GZ3	1,000	7,700	-	[illegible]
GZ4	1,000	7,700	-	[illegible]



KEY PLAN

REVISION

No.	Date	Revision	Project	Checked	Approved

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT HAFEEZ CONTRACTOR

29 TAMIL STREET, MUMBAI - 400 001. TEL: 2661620

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DRAWING TITLE

TERRACE FLOOR
(RESTAURANT LVL.) &
MUMTY LEVEL PLAN

NORTH

Project No.	Plot No.	SCALE	Rev. No.
0019007	02a	AS SHOWN	R0

RAFULVED INFRA PVT. LTD. NAGPUR



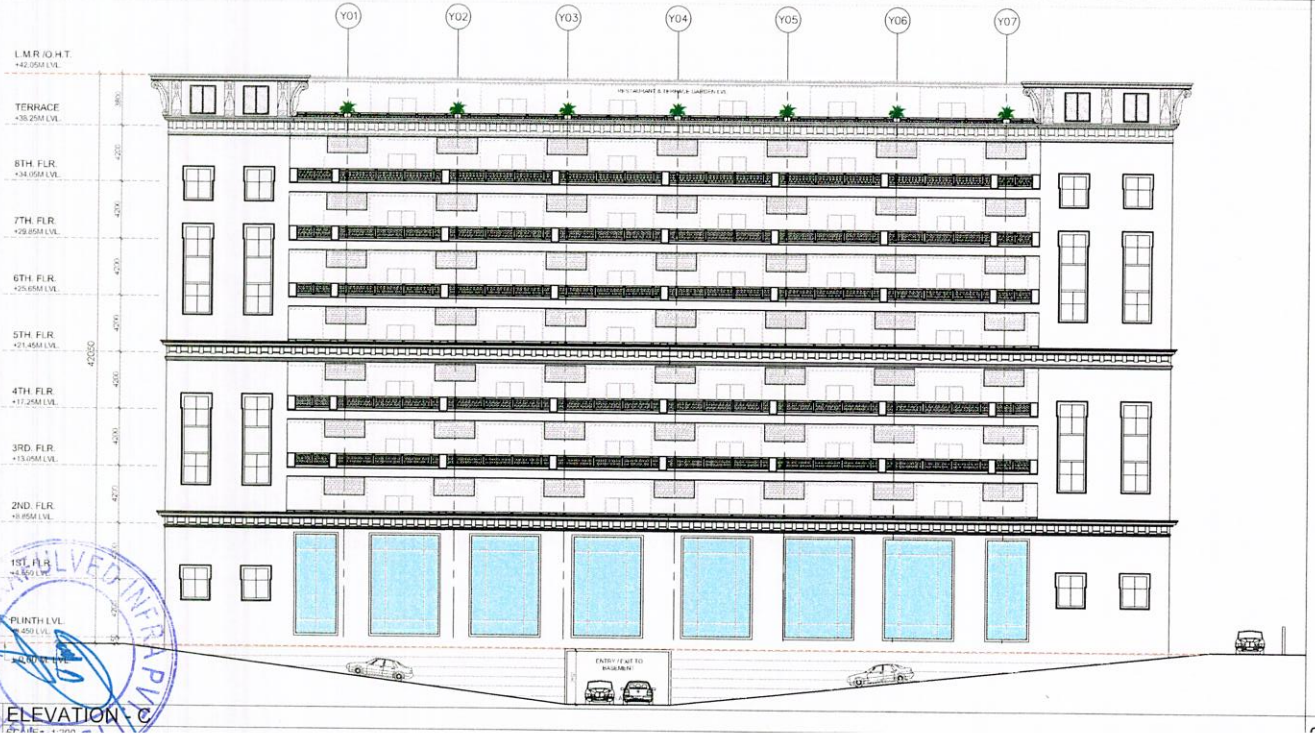
01. ELEVATION - A

SCALE:- 1:200



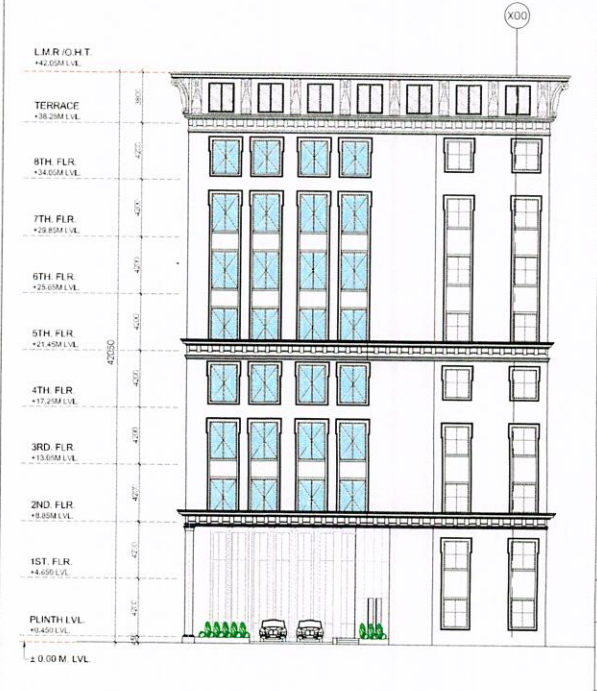
03. ELEVATION - B

SCALE:- 1:200



02. ELEVATION - C

SCALE:- 1:200



04. ELEVATION - D

SCALE:- 1:200

GENERAL NOTES

THE TERM 'ARCHITECT' HEREIN SPECIFICALLY MEANS REFERENCE TO 'ARCHITECT + STRUCTURAL CONSULTANT'.

1. ALL DRAWINGS SHALL BE READ ONLY FOR TENDER PURPOSE.
2. ALL DIMENSIONS ARE DEFINED UNLESS OTHERWISE SPECIFIED.
3. ALL LEVELS ARE IN MTS.
4. ALL LEVELS, OTHER THAN ROAD LEVELS, SHALL BE CONFIRMED FROM SITE BEFORE EXECUTION.
5. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
6. ALL BUILDING ARCHITECTURAL ELEMENTS SHOWN ON PLANS, SECTIONS, ELEVATIONS & GENERAL PAINTING SPECIFICATION DRAWINGS SHALL BE CONSIDERED AS PART OF THE CONTRACT.
7. FLOOR AND LANDSCAPING FINISH TO ALL BUILDINGS TO BE AS PER SPECIFICATIONS / DRAWINGS.
8. HEIGHT OF BUILDING SHALL BE APPROVED FROM AIR BEFORE CONSTRUCTION OF SLAB.
9. IF THERE IS ANY ERROR FOUND IN THE DRAWINGS IT SHOULD BE BROUGHT TO THE NOTICE OF THE ARCHITECT BEFORE EXECUTION OF THE WORK.
10. ALL DIMENSIONS ARE FROM FACE OF WALL TO FACE OF WALL.
11. SITE PLOT BOUNDARIES OR OPEN SPACES BETWEEN BUILT STRUCTURES SHALL BE CROSS VERIFIED WITH THE RESPECTIVE APPROVAL AUTHORITY AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1.800	2.100	0.900	
W2	2.400	2.100	0.900	
W3	1.200	2.100	0.900	
W4	2.400	2.100	0.900	
W5	2.400	2.100	0.900	

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	2.400	2.100		
D1	0.900	2.100		
FD1	1.200	2.100		

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	6.000	2.100		
GZ2	3.600	2.100		
GZ3	1.800	2.100		
GZ4	4.200	2.100		



KEY PLAN

REVISION

No.	Date	Revision	Drawn	Chkd.	Appd.
1	21.12.22	FOR TENDER	SM	NS	SPS

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT HAFEEZ CONTRACTOR

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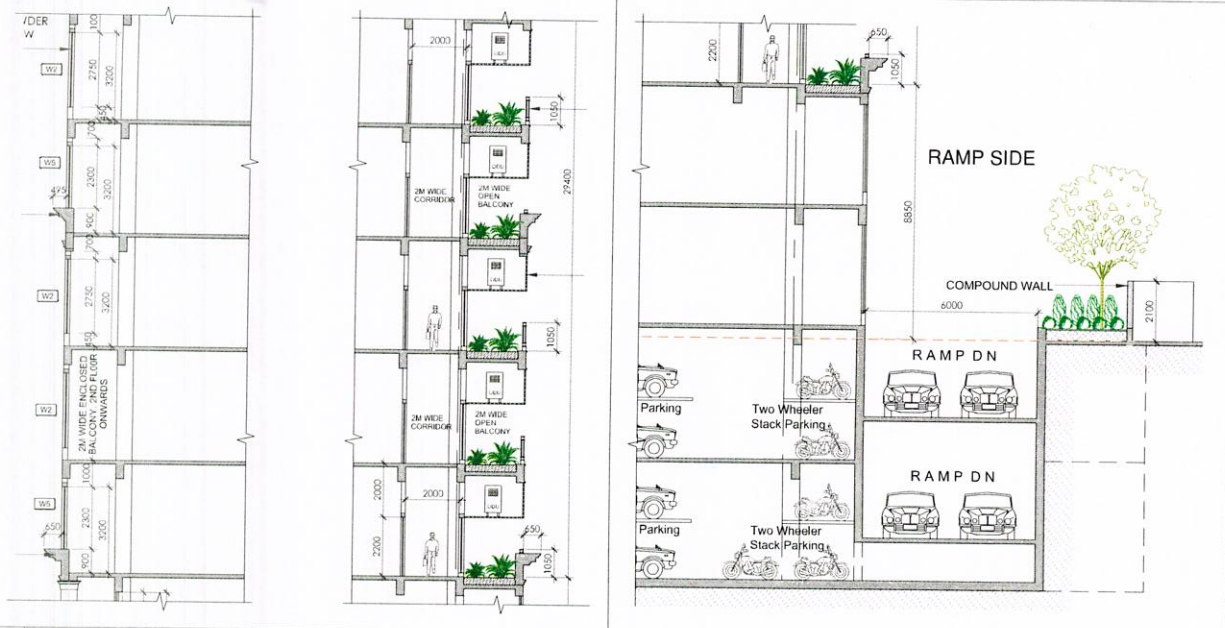
DRAWING TITLE

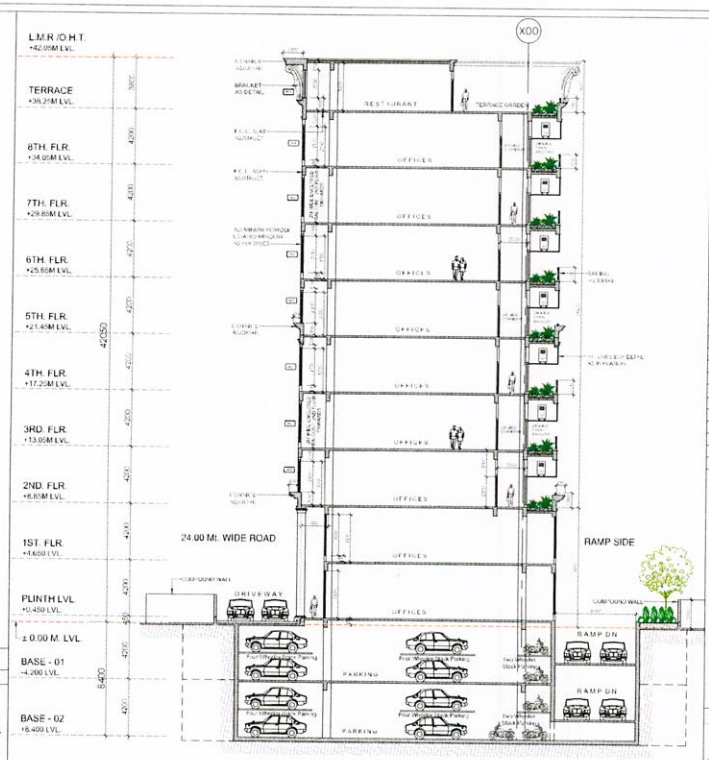
ELEVATIONS A,B,C & D

NORTH

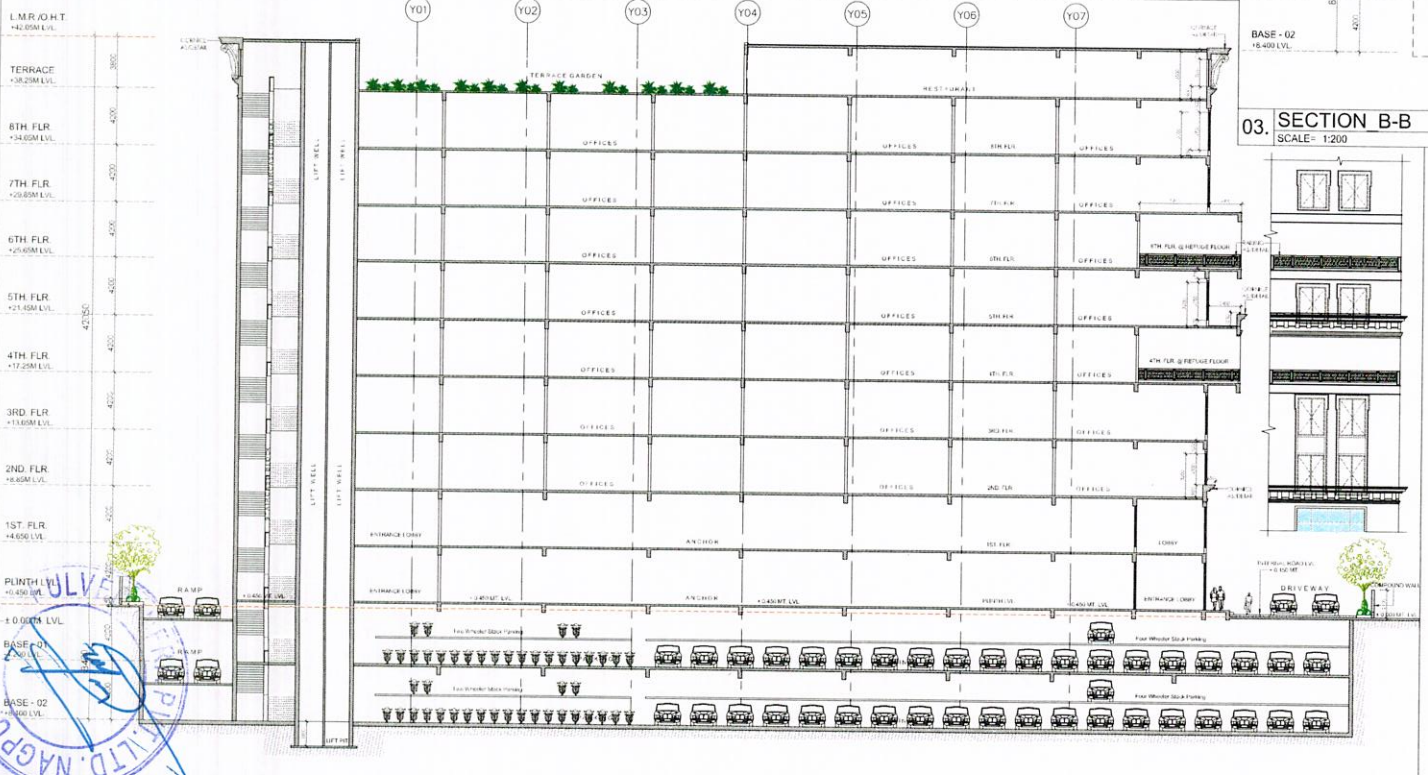
Project No.	Plot No.	SCALE	Rev. No.
001900/	07a	AS SHOWN	R0



01. PART SECTION
SCALE= 1:200



03. SECTION_B-B
SCALE= 1:200



02. SECTION_A-A
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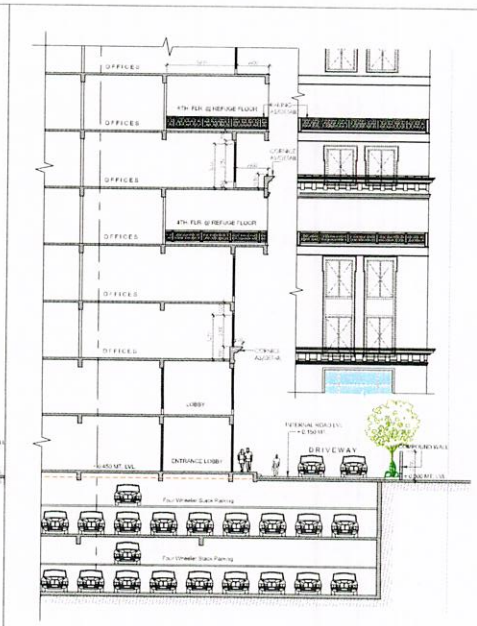

04. PART SECTION

GENERAL NOTES

THE CONTRACTOR MUST NOTIFY THE ARCHITECT IMMEDIATELY WHEN REFERENCE TO THE ARCHITECT'S AGREE CONTRACTOR.

1. ALL DRAWINGS ARE TO BE READ ONLY FOR TENDER PURPOSE.
2. ALL DIMENSIONS ARE PREFERRED UNLESS OTHERWISE SPECIFIED.
3. ALL LEVELS ARE IN MTRS.
4. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
5. FOR FINISHING SPECIFICATION AND GENERAL NOTES & GENERAL FINISHING SPECIFICATION DRAWING IN SECTION DESIGN COLLAPSE.
6. CONTRACTOR SHALL CHECK ALL DIMENSIONS BEFORE MANUFACTURING OR CUTTING.
7. ALL WORKING DRAWINGS AND DETAILS SHOULD BE READ TOGETHER WITH ALL RELEVANT DRAWINGS AND DETAILS.
8. ALL DRAWINGS AND DETAILS SHOULD BE READ TOGETHER WITH THE SPECIFICATIONS.
9. HEIGHT OF BUILDING SHALL BE MEASURED FROM AVERAGE STREET LEVEL OF BUILDING.
10. IN ORDER TO ACCOMMODATE MISTAKES AND OMISSIONS, CONTRACTOR SHOULD NOTIFY THE ARCHITECT AND WAIT FOR PROCEEDING OF DETAILS.
11. ALL DIMENSIONS SHALL BE TAKEN IN PRESENCE OF THE ARCHITECT.
12. THE PLOT BOUNDARIES AND OPEN SPACES ESTIMATED BUILT UP AREA SHALL BE FREE OF ENCROACHMENT WITH RESPECTS TO SITE. BUILT UP AREA SHALL BE FREE OF ENCROACHMENT WITH RESPECTS TO NEIGHBOURING PLOTS ADJACENT TO THE SITE AT THE TIME OF COMMENCEMENT OF CONSTRUCTION.

WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1400	2.250	1050	[illegible]
W2	2.800	2.750	0.650	[illegible]
W3	1.800	2.800	0.900	[illegible]
W4	0.900	2.800	0.650	[illegible]
W5	2.400	2.200	0.400	[illegible]

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	2.800	2.400	-	[illegible]
D1	2.800	2.700	-	[illegible]
FD1	1.200	2.200	-	[illegible]

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	6.600	7.700	-	[illegible]
GZ2	3.900	7.700	-	[illegible]
GZ3	1.800	7.700	-	[illegible]
GZ4	1.200	7.700	-	[illegible]



KEY PLAN

REVISION

No.	Date	Remarks	Prepared	Checked	Approved

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT
HAFEEZ
CONTRACTOR

29 RAM STREET, MUMBAI - 400 021 TEL 2368127

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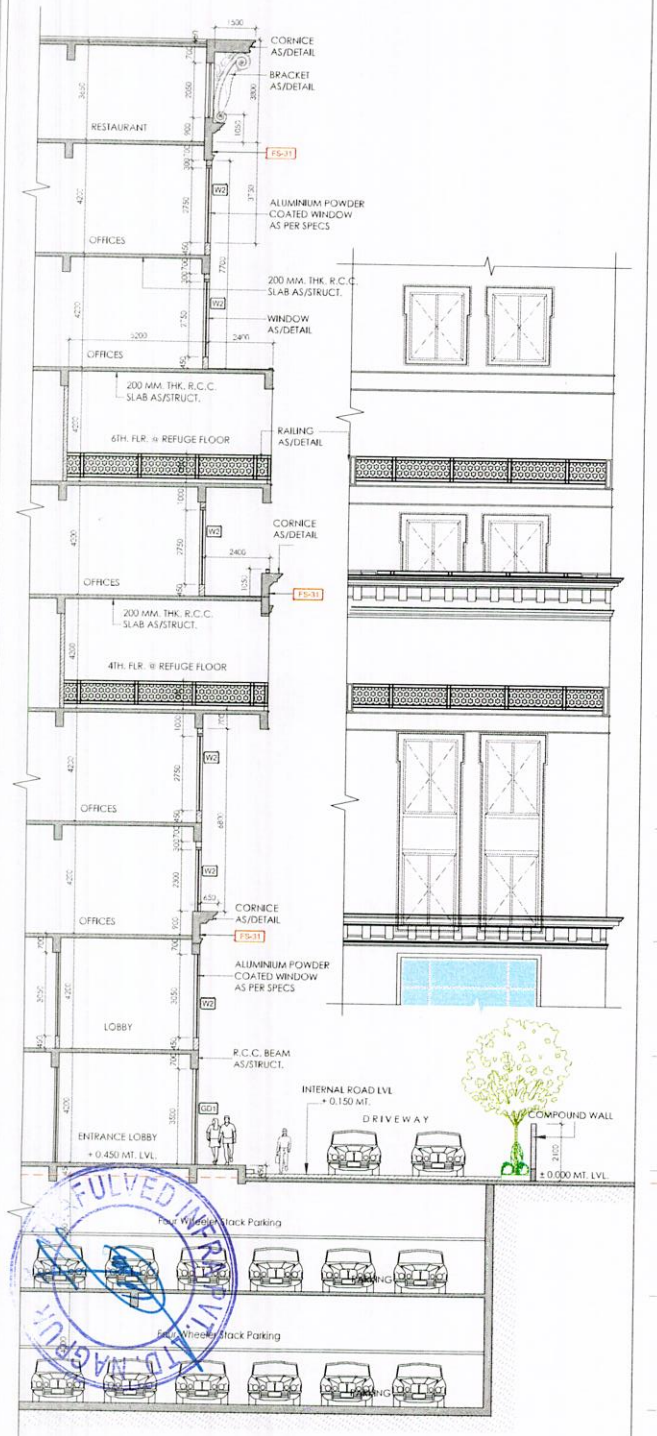
DRAWING TITLE

SECTION
A-A & B-B

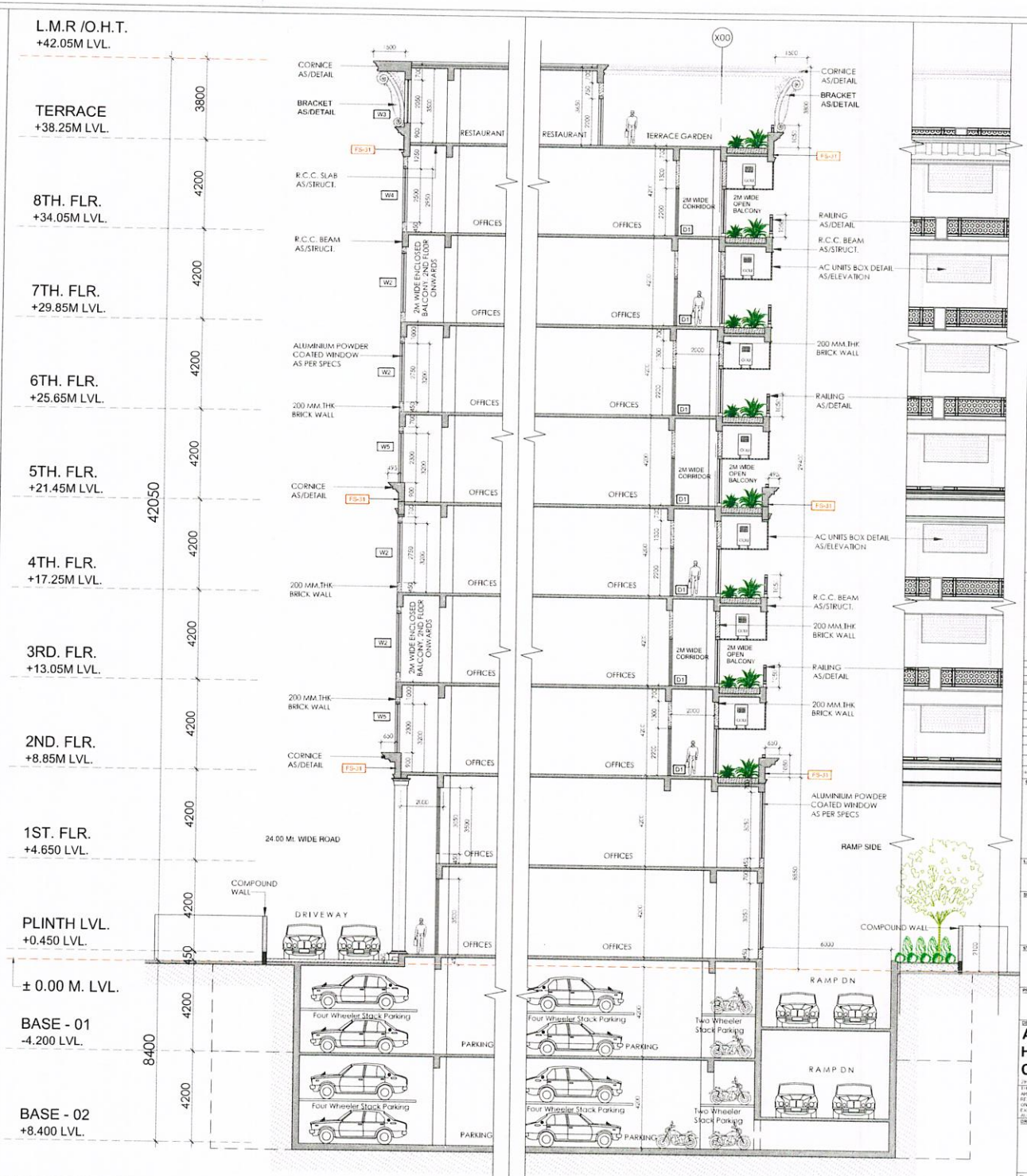
NORTH

Project No.	Plot No.	SCALE	Rev. No.
001600/	02a	AS SHOWN	R0

ULVEX FIRE PVT. LTD. NAGPUR



01 FACADE SECTION -01



FACADE SECTION -02

GENERAL NOTES

THE TERM ARCHITECT HEREIN SPECIFICALLY MAKES REFERENCE TO ARCHITECT HAFEEZ CONTRACTOR.

1. ALL DRAWINGS SHALL BE READ ONLY FOR TENDER PURPOSE.
2. ALL DIMENSIONS ARE INSERTED UNLESS OTHERWISE SPECIFIED.
3. ALL EXTRA WORK MUST BE SPECIFIED.
4. ALL EXTRA SPECIFICATIONS AND DIMENSIONS LEVELS UNLESS SPECIFIED.
5. FOR ENGINEERING DRAWINGS AND GENERAL DETAILS & GENERAL FINISHING SPECIFICATION DRAWING SHEET NO. GCSP-CS-CN-005.
6. COLOUR DIMENSIONS ARE INDICATIVE.
7. ALL DIMENSIONS ARE INCLUDING ALL BUILDINGS TO BE AS PER NAGPUR MUNICIPAL CORPORATION.
8. DESIGN AND CONSTRUCTION OF ALL BUILDINGS TO BE AS PER NAGPUR MUNICIPAL CORPORATION.
9. ALL DRAWINGS SHALL BE APPROVED FROM AN BEFORE COMMENCEMENT OF WORK.
10. ALL DRAWINGS SHALL BE READ IN PROPOSED BUILT STRUCTURES TO SITE, PLOT BOUNDARIES OR OPEN SPACES BETWEEN BUILT STRUCTURES SHALL BE CROSS-VERIFIED WITH THE RESPECTIVE APPROVAL AUTHORITY AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

WINDOW SCHEDULE

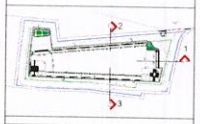
NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1.400	2.100	0.900	[illegible]
W2	2.000	2.250	0.900	[illegible]
W3	1.600	2.800	0.900	[illegible]
W4	2.000	2.500	0.900	[illegible]
W5	2.000	2.300	0.900	[illegible]

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	2.000	2.400	-	[illegible]
D1	2.000	2.200	-	[illegible]
FD1	1.200	2.250	-	[illegible]

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	8.000	7.000	-	[illegible]
GZ2	5.000	7.700	-	[illegible]
GZ3	3.000	7.700	-	[illegible]
GZ4	7.000	7.700	-	[illegible]



KEY PLAN

REVISION

No.	Date	Revision	Prepared	Checked	Approved

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT HAFEEZ CONTRACTOR

29 SAINT STREET, MUMBAI - 400 025. TEL. 2661620

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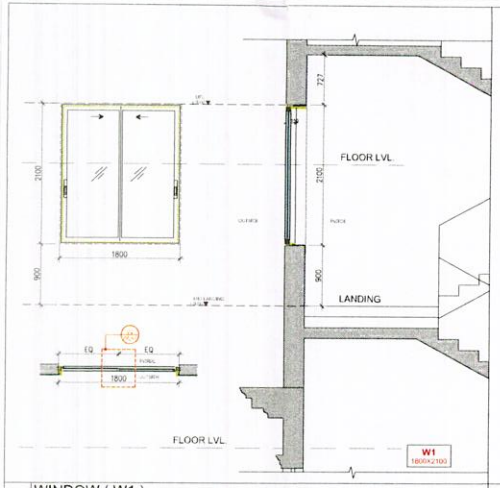
DRAWING TITLE

FACADE SECTION 01 - 02 & 03

NORTH

Project No	Plot No	SCALE	Rev. No.



01 WINDOW (W1)
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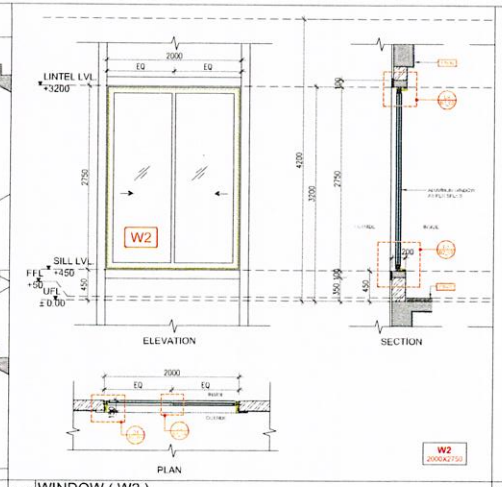

02 WINDOW (W2)
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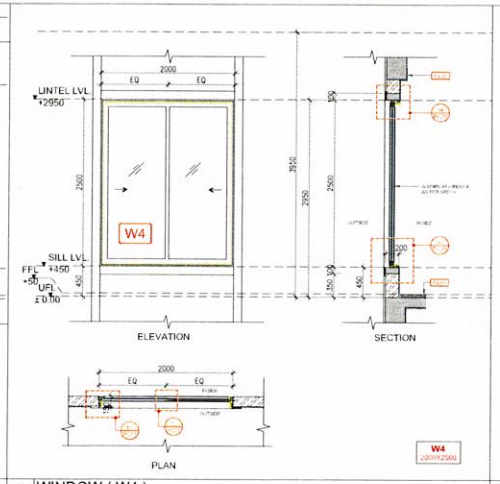

03 WINDOW (W4)
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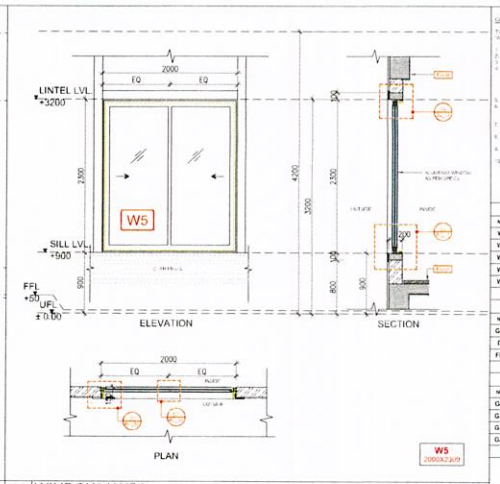

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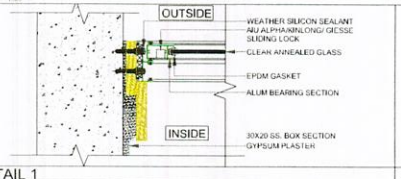

12 DETAIL 1
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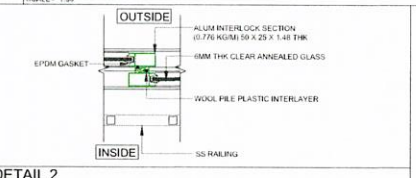

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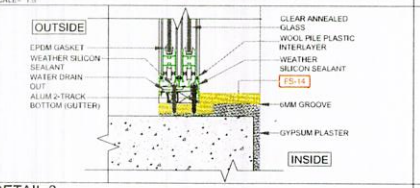

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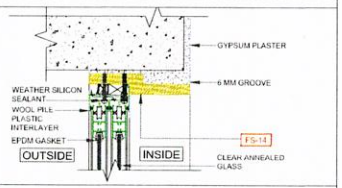

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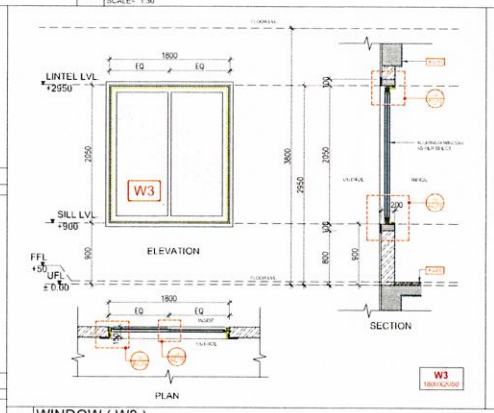

05 WINDOW (W3)
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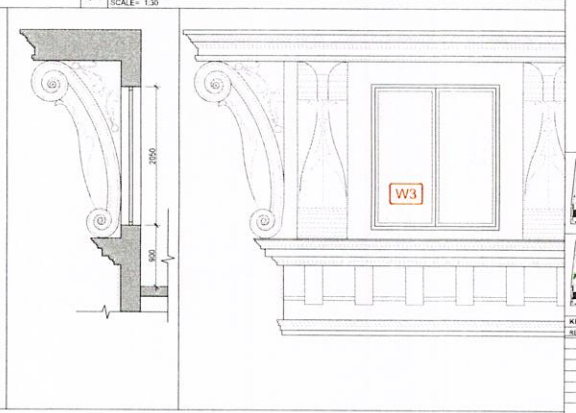

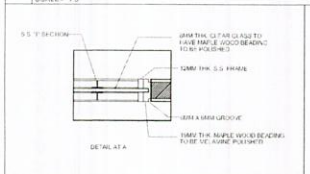

DETAIL - A
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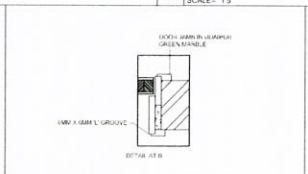

DETAIL - B
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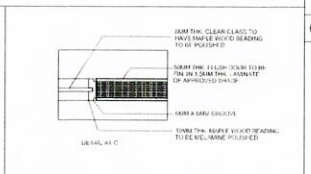

DETAIL - C
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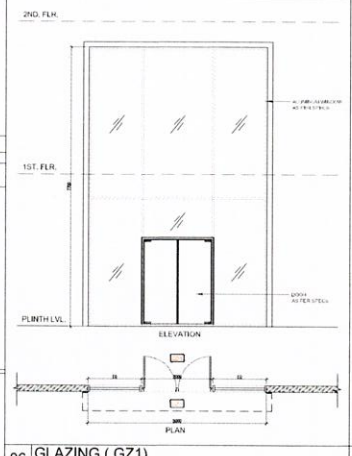

06 GLAZING (GZ1)
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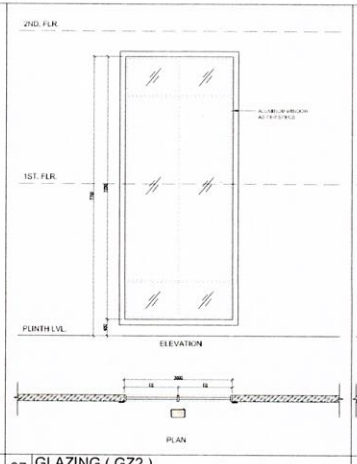

07 GLAZING (GZ2)
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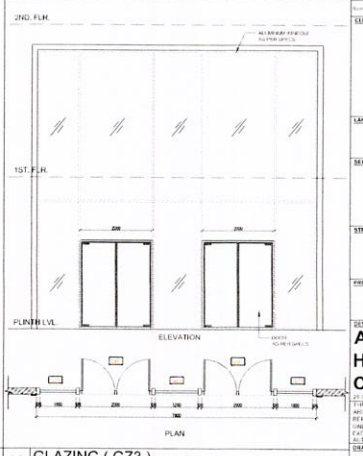

08 GLAZING (GZ3)
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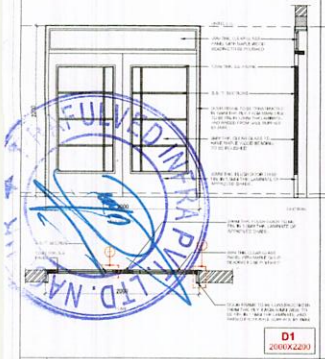
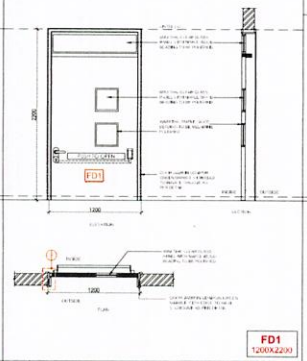
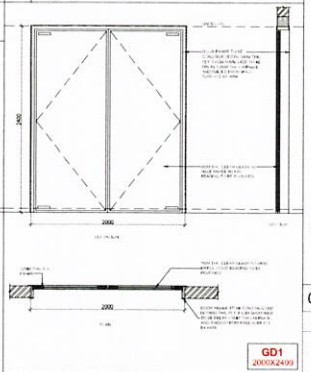


DOOR (D1)



FIRE DOOR (FD1)



GLASS DOOR (GD1)

GENERAL NOTES:-

WINDOW GENERAL SPECIFICATION

SLIDING WINDOWS : MINIMUM 1.5MM THICK ALUMINIUM 25 MICRON ANODIZED, BOTTOM DRAIN SECTION WITH (FS 27) GREEN MARBLE FRAME (20-25MM THICK), 6MM THICK CLEAR FLOAT GLASS; ALUMINIUM SHALL CONFORM TO IS 63400 WP. ALUMINIUM SECTIONS SHALL BE OF JINDAL / HINDALCO / GUJARAT ALUMINIUM OR EQUIVALENT APPROVED FOR TOILETS W.C. KITCHEN

GLAZING NOTES :

THE DRAWING SHALL BE READ ONLY FOR TENDER PURPOSE.
ALL DIMENSIONS ARE WRITTEN IN FIGURES AND SHALL BE STRICTLY FOLLOWED.
ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
ALL DIMENSIONS ARE TO BE CHECKED AT SITE BEFORE EXECUTION.
SPECIFICATION FOR SUPPLY, INSTALLATION AND GENERAL DETAILS & GENERAL FINISHING SPECIFICATION DRAWING SHEET NO.
CONSTRUCTION DRAWING FOR EXECUTION
ALL BUILDING ACTIVITIES SHALL STRICTLY CONFORM TO THE NAGPUR BUILDING CORPORATION.
HEIGHT OF BUILDING SHALL BE APPROVED FROM AAI BEFORE COMMENCEMENT OF WORK.
ALL DIMENSIONS ARE IN MM. ANY DISCREPANCY SHALL BE BROUGHT TO NOTICE OF ARCHITECT BEFORE EXECUTION OF WORK.
ALL DIMENSIONS SHALL BE CHECKED AT SITE BEFORE EXECUTION OF WORK. ANY DISCREPANCY SHALL BE BROUGHT TO NOTICE OF ARCHITECT BEFORE EXECUTION OF WORK.

WINDOW SCHEDULE

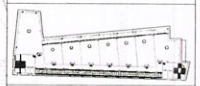
NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1800	2100	900	TOILET BLOCK
W2	2000	2750	450	TOILET BLOCK
W3	1800	2050	900	TOILET BLOCK
W4	2000	2500	450	TOILET BLOCK
W5	2000	2300	900	TOILET BLOCK

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	2400	2490	NIL	MAIN ENTRANCE
D1	2000	2290		TOILET BLOCK
FD1	1200	2290		FIRE EXIT STAIRCASE

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	5400	7290		MAIN SECTION BLOCK FRONT SIDE
GZ2	3600	7290		MAIN CLASS & FRONT SIDE
GZ3	1800	7290		CHANNEL SIDE
GZ4	1200	7290		CHANNEL SIDE



KEY PLAN

REVISION

No.	Date	Remarks	Prepared	Checked	Approved

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT
HAFEEZ
CONTRACTOR

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DRAWING TITLE

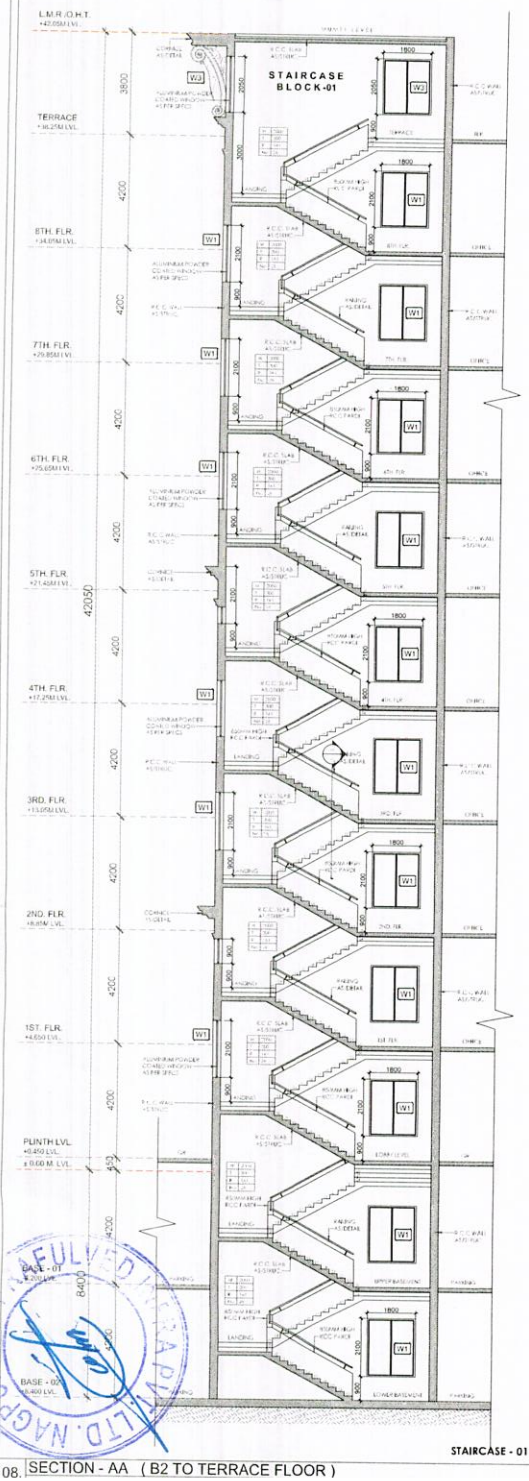
DOORS & WINDOWS DETAILS

NORTH

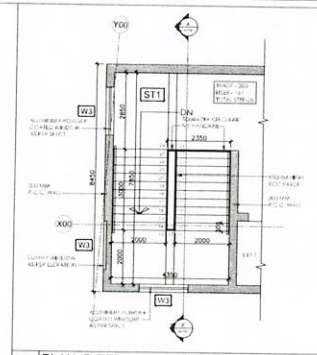
Project No.	Plot No.	SCALE	Rev. No.
OR1600/	2a	AS SHOWN	R0

Drawing No.

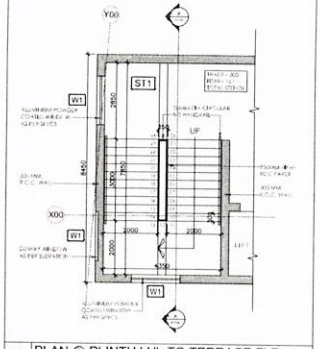
Sheet No.



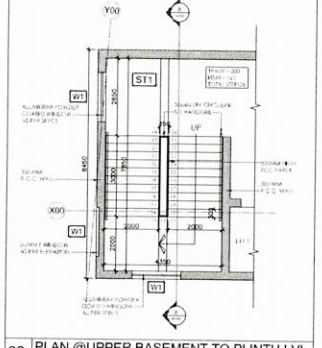
08. SECTION - AA (B2 TO TERRACE FLOOR)



03. PLAN @ TERRACE FLR.
SCALE= 1:100



03. PLAN @ PLINTH LVL TO TERRACE FLR.
SCALE= 1:100



02. PLAN @UPPER BASEMENT TO PLINTH LVL.
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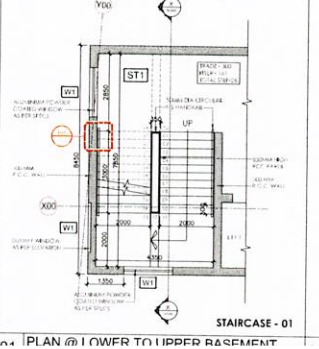
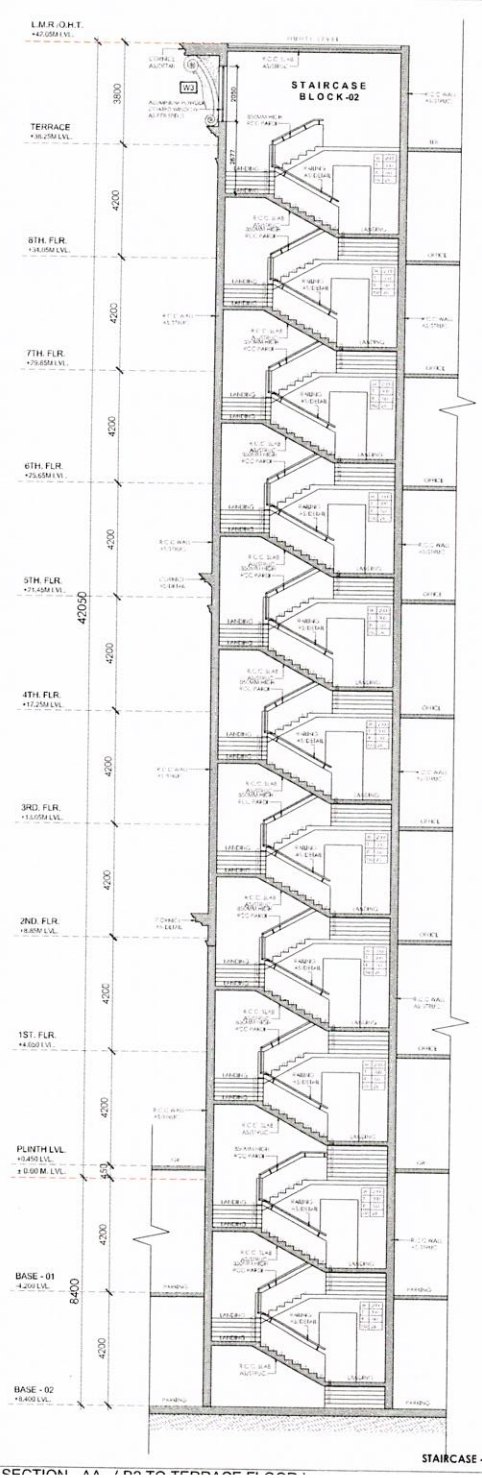
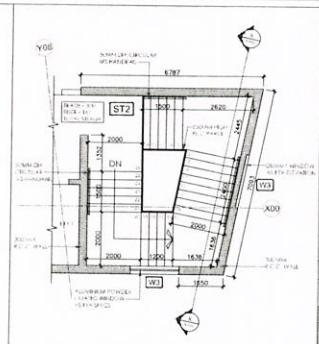


01. PLAN @ LOWER TO UPPER BASEMENT



SECTION - AA (B2 TO TERRACE FLOOR)



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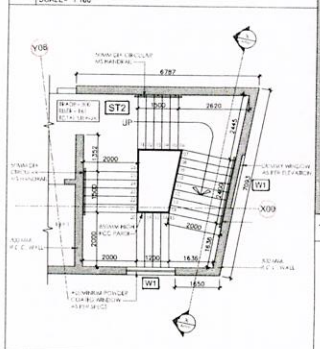

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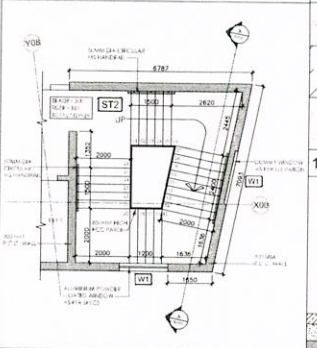

02. PLAN @UPPER BASEMENT TO PLINTH LVL.
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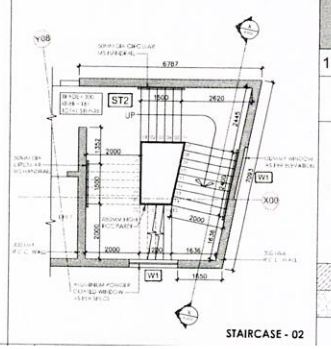

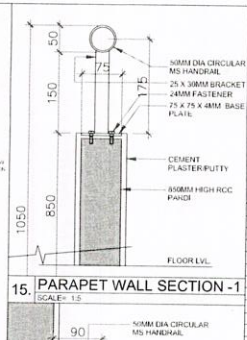

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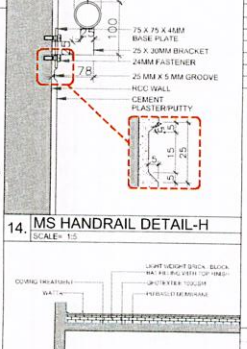

14. MS HANDRAIL DETAIL-H
SCALE= 1:5

13. MUMTY TOP W/P DETAIL
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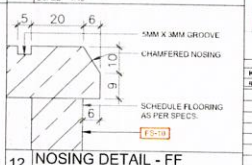
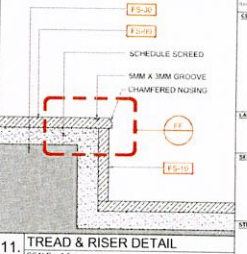
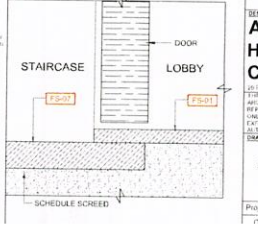


12. NOSING DETAIL - FF
SCALE= 1:100



11. TREAD & RISER DETAIL
SCALE= 1:5



WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1.800	2.100		
W2	2.940	2.700		
W3	1.800	2.600		
W4	2.940	2.700		
W5	2.940	2.700		

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	2.940	2.100		
D1	2.940	2.250		
FD1	1.120	2.250		

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	1.800	2.100		
GZ2	1.940	2.700		
GZ3	1.800	2.600		
GZ4	1.940	2.700		



KEY PLAN

REVISION

No.	DATE	DESCRIPTION	DR.	CH.	APP.

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

CHANGE CITY STREET PROJECT, NAGPUR.
PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT
HAFEEZ
CONTRACTOR

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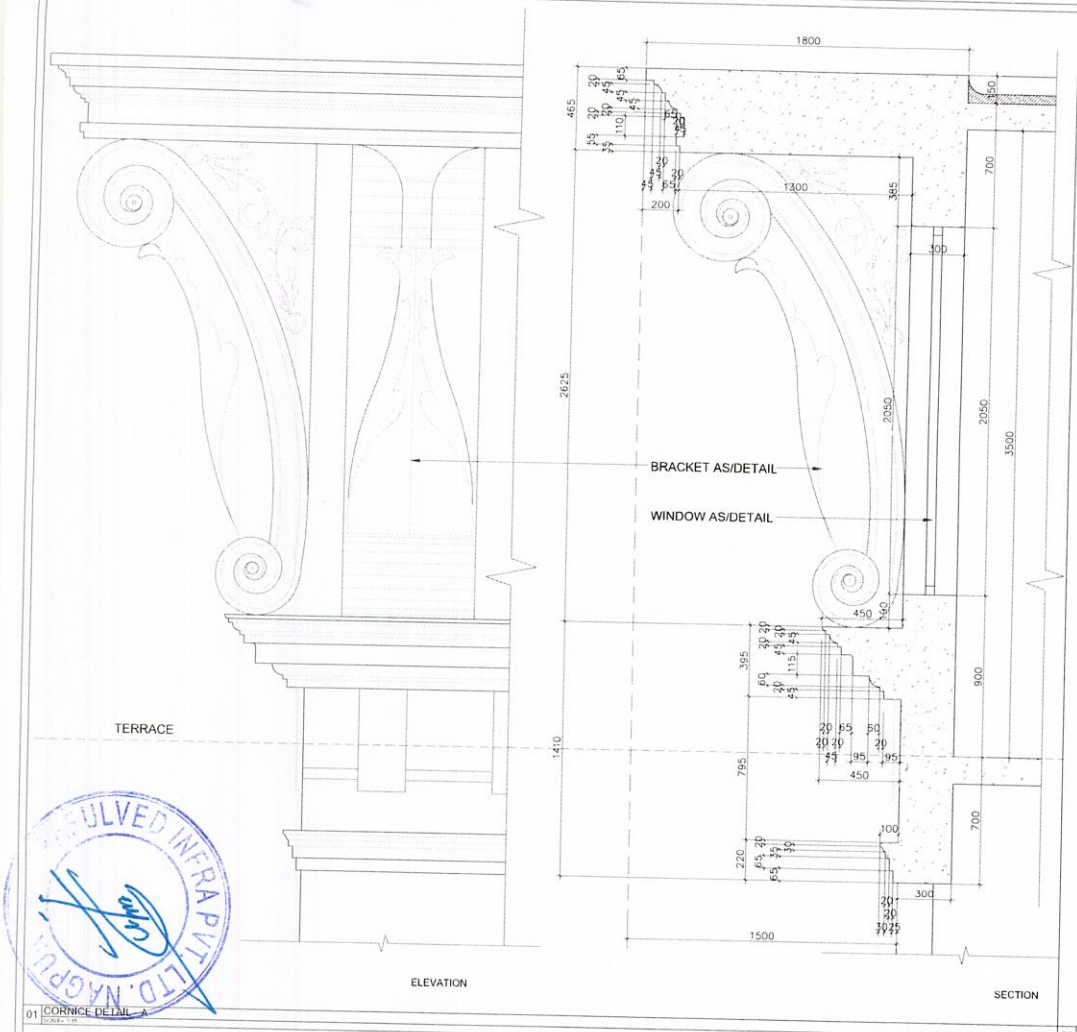
DRAWING TITLE

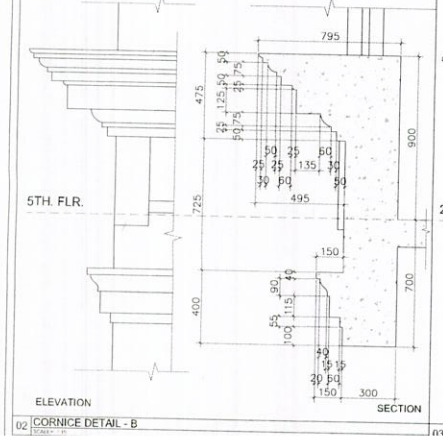
STAIRCASE - 01 & 02 DETAILS

NORTH

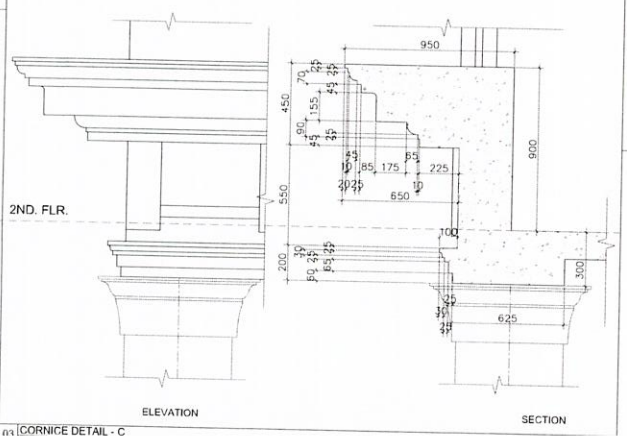
Project No.	Plot No.	SCALE	Rev. No.
		AS SHOWN	



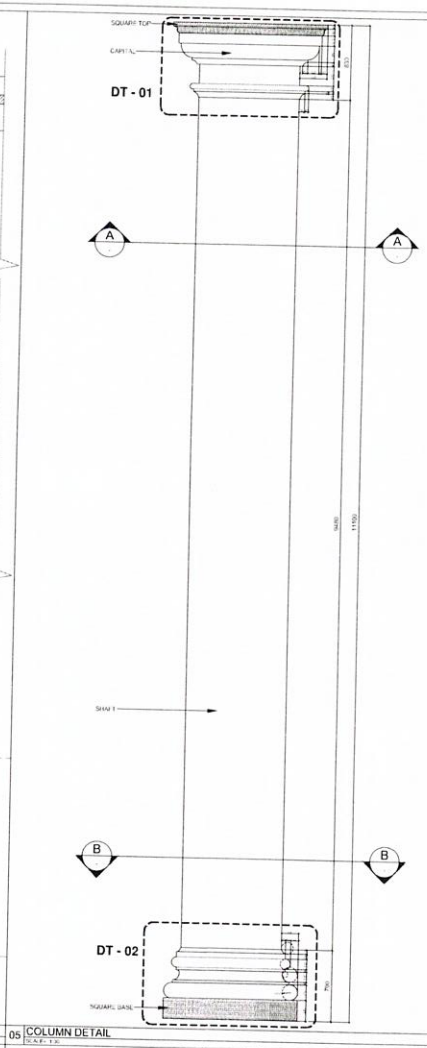
01 CORNICE DETAIL - A



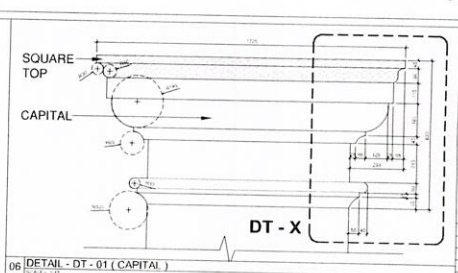
02 CORNICE DETAIL - B



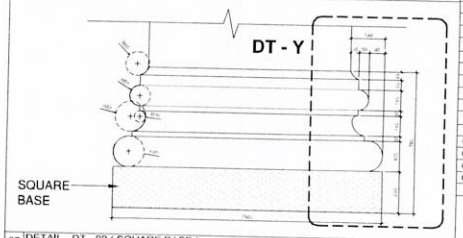
03 CORNICE DETAIL - C



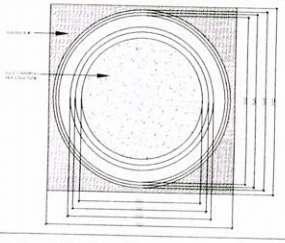
05 COLUMN DETAIL



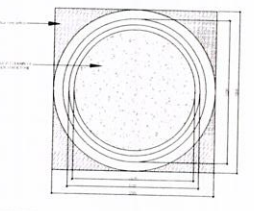
06 DETAIL - DT - 01 (CAPITAL)



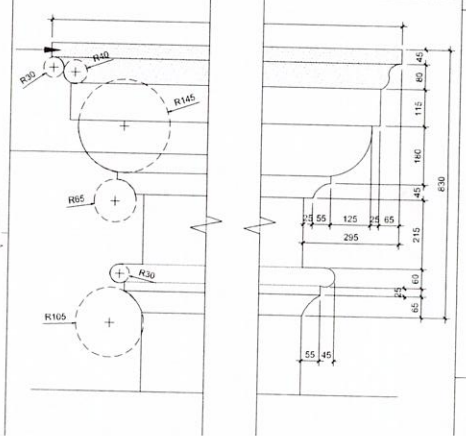
07 DETAIL - DT - 02 (SQUARE BASE)

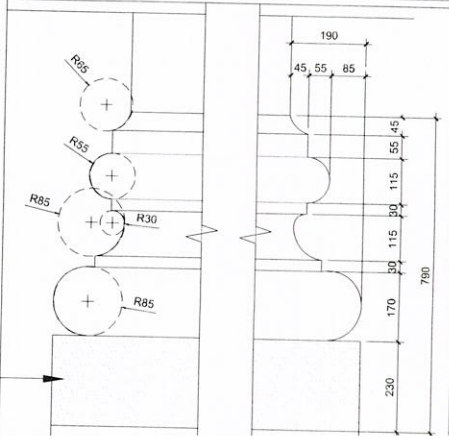


08 PLAN AT - AA



09 PLAN AT - BB





GENERAL NOTES

THE TERM "ARCHITECT" HEREIN SPECIFICALLY MEANS REFERENCE TO "ARCHITECT HAFEEZ CONTRACTOR"

1. ALL DRAWINGS SHALL BE READ ONLY FOR TENDER PURPOSE.
2. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
3. ALL LEVELS ARE IN METERS.
4. ALL EXTERNAL AND CIVIL WORKS SHALL BE AS PER LOCAL SPECIFICATIONS.
5. FOR DRAWING APPLICATION AND LEGENDS, REFER TO GENERAL BUILDING SPECIFICATION DRAWING SHEET NO. GSP_GA_01.
6. CREDIT FOR DESIGN AND INNOVATION
   a. ALL BUILDING ARCHITECTURAL ELEMENTS SHOWN IN THE PLANS, ELEVATIONS & SECTIONS AS PART OF DESIGN AND INNOVATION.
   b. ALL DESIGN AND CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE LOCAL CODES, ORDINANCES AND REGULATIONS.
7. HEIGHT OF BUILDING SHALL BE APPROVED FROM AAI BEFORE COMMENCEMENT OF WORK.
8. IF ANY DISCREPANCY IS NOTICED, IT MUST BE BROUGHT TO NOTICE OF THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
9. ALL CONSTRUCTION MATERIALS USED SHALL BE AS PER APPROVED SAMPLES AND SHALL BE PROCURED FROM APPROVED SOURCES ONLY. ALL WORKS SHALL BE CARRIED OUT IN THE BEST MANNER AS PER STANDARD PRACTICE AND SHALL BE CARRIED OUT UNDER THE SUPERVISION OF COMPETENT ENGINEERS.
10. ALL STRUCTURES SHALL BE DESIGNED AND CONSTRUCTED AS PER SEISMIC ZONE-III AS PER IS 1893 (PART 1) 2002.

WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1400	2300	1000	STAIR CASE
W2	2400	2700	1000	TYPICAL FLOOR - CORRIDOR SIDE
W3	1400	1800	1000	TYPICAL FLOOR - CORRIDOR SIDE
W4	2400	2300	1000	TYPICAL FLOOR
W5	2400	2400	1000	TYPICAL FLOOR - CORRIDOR SIDE

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	2400	2400	-	ENTRANCE
D1	2400	2700	-	TYPICAL FLOOR
FD1	1200	2400	-	TYPICAL FLOOR

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	5400	2700	-	TYPICAL FLOOR
GZ2	2400	2700	-	TYPICAL FLOOR
GZ3	1200	2700	-	TYPICAL FLOOR
GZ4	1200	2700	-	TYPICAL FLOOR

KEY PLAN

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT
HAFEEZ
CONTRACTOR

29 GMA STREET, MUMBAI - 400 001. TEL. 2201001

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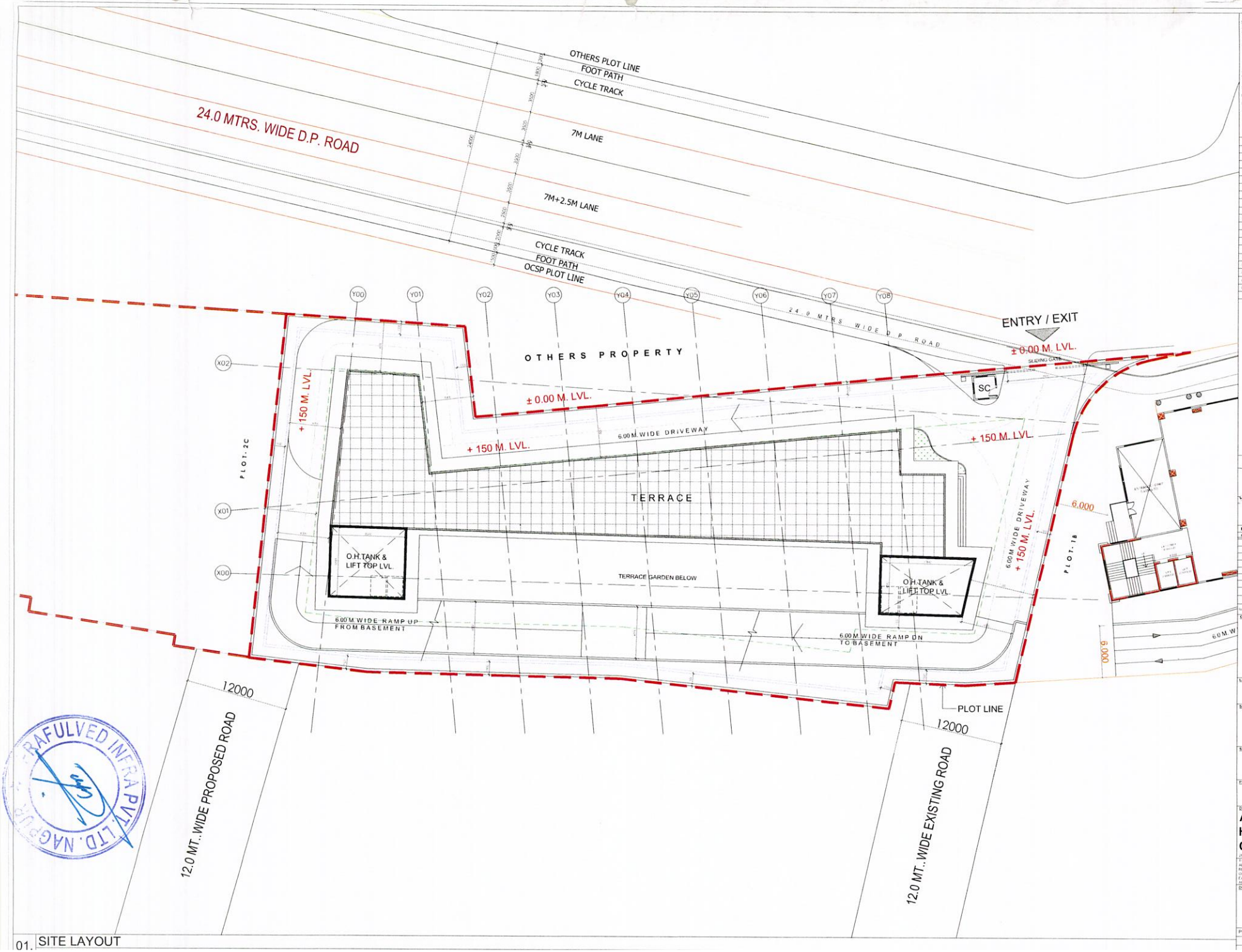
DRAWING TITLE

GENERAL DETAILS

NORTH

Project No.	Plot No.	SCALE	Rev. No.



GENERAL NOTES

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1. ALL DRAWINGS SHALL BE READ ONLY FOR TENDER PURPOSE.
2. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED.
3. ALL LEVELS ARE IN M.
4. ALL LEVELS INDICATED ARE UP FINISH OF R.C.C. SLAB.
5. FOR FINISHING SPECIFICATIONS REFER DETAIL TO SHEET.
6. GENERAL FINISHING SPECIFICATION DRAWING SHEET NO.
7. FIGURED DIMENSIONS SHOULD BE FOLLOWED.
8. ALL BUILDINGS ABOVE 15 M. HEIGHT SHALL HAVE PROVISION OF ANCHOR BOLTS AS PER DESIGN ACCORDING TO IS 1893.
9. COLOUR AND CONCEPTUAL PLAN OF ALL BUILDINGS SHALL BE AS PER NAGPUR BUILDING CONSTRUCTION.
10. HEIGHT OF BUILDING SHALL BE MEASURED FROM MEAN ROAD LEVEL FRONT SIDE OF PLOT.
11. IF ANY DISCREPANCY OBSERVED IN MEASUREMENTS / DETAILS BROUGHT TO NOTICE OF THE ARCHITECT BEFORE THE PROCEEDING OF WORK.
12. ALL OPEN SPACES SHALL BE PROPERLY DRAINED AND LEVELLED SO AS TO AVOID STAGNATION OF WATER. BOUNDARIES OF OPEN SPACES BETWEEN BUILT UP PORTIONS AND ROADS SHALL BE PROTECTED BY RAISED KERB STONE ARRANGING AUTHORITY AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
W1	1.800	2.400	0.900	OTHERS PROPERTY
W2	2.400	2.700	0.600	TYPICAL FLOOR PLAN
W3	1.800	2.400	0.900	TYPICAL FLOOR PLAN
W4	2.400	2.700	0.600	TYPICAL FLOOR PLAN
W5	2.400	2.400	0.600	TYPICAL FLOOR PLAN

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GD1	2.400	2.400	---	ENTRANCE DOOR
D1	0.900	2.100	---	TYPICAL FLOOR PLAN
FD1	1.200	2.100	---	FIRE DOOR (TYPICAL)

GLAZING WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	SILL	LOCATION
GZ1	3.600	7.200	---	TYPICAL FLOOR PLAN
GZ2	3.600	7.200	---	TYPICAL FLOOR PLAN
GZ3	1.800	7.200	---	TYPICAL FLOOR PLAN
GZ4	1.200	7.200	---	TYPICAL FLOOR PLAN

KEY PLAN

REVISION

NO.	DATE	DESCRIPTION	BY	CHK	APP
01	11.07.17	FOR TENDER	AM	HC	HC

CLIENT

NAGPUR MUNICIPAL CORPORATION

LANDSCAPE CONSULTANT

SERVICES CONSULTANT

STRUCTURE CONSULTANT

PROJECT

ORANGE CITY STREET PROJECT, NAGPUR

PLOT - 2a COMMERCIAL OFFICE BUILDING

DESIGN CONSULTANT

ARCHITECT HAFEEZ CONTRACTOR

29 SHAH STREET, MUMBAI - 400 004. TEL. 2363 4222

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DRAWING TITLE

SITE LAYOUT

NORTH

Project No.	Plot No.	SCALE	Rev. No.
Q01900/	07a	AS SHOWN	R0

Drawing No. | Sheet No.

RAFULVED INFRA PVT. LTD. NAGPUR

01. SITE LAYOUT

Volume I:

REQUEST FOR PROPOSAL (RFP) DOCUMENT FOR DEVELOPMENT OF NMC MIXED USE COMMERCIAL COMPLEX PROJECT ON PLOT NO. 5 OF ORANGE CITYSTREET PROJECT OF NMC AT NAGPUR ON DESIGN, BUILD, FINANCE, MAINTAIN and SALE MODE.



Project Proponent:

NAGPUR MUNICIPAL CORPORATION

Issued by:
Office of the Executive Engineer
(Project), Civil Lines, Mahanagar Palika
Marg, Nagpur.
Telephone: 0712-254283
Email:eeprojectnmc@gmail.com

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ESBTR AND AGREEMENT

महाराष्ट्र शासन
GOVERNMENT OF MAHARASHTRA
ई-सुरक्षित बँक व कोषागार पावती
e-SECURED BANK & TREASURY RECEIPT (e-SBTR)

19528981147067

Bank/Branch: IBKL - 6910703/Nagpur Sadar
Pmt Txn id : 729251707 Stationery No: 19528981147067
Pmt DtTime : 15-JUL-2023@18:31:02 Print DtTime : 15-JUL-2023 18:37:11
ChallanIdNo: 69103332023071551645 GRAS GRN : MH005256789202324S
District : 4601-NAGPUR Office Name : IGR383-NGP1_HQR SUB REG
GRN Date : 15-Jul-2023@18:31:03

StDuty Schm: 0030046401-75/STAMP DUTY
StDuty Amt : R 11,17,500/- (Rs One One, One Seven, Five Zero Zero only)

RgnFee Schm: 0030063301-70/Registration Fees
RgnFee Amt : R 0/- (Rs Zero only)

Article : 5(g-a)(ii)--Development Agreement
Prop Mvblty: Immovable Consideration: R 1,11,75,00,945/-
Prop Descr : 05,SOMALWADA,NAGPUR,,,NAGAUR,NAGAUR,Maharashtra,440015

Duty Payer: PAN-ABDFP7844F,PRAFULVED INFRA AND PRAFUL DESHMUKH ASSO 5 LLP

Other Party: PAN-AAALN0133B,NAGPUR MUNICIPAL CORPORATION

Bank official1 Name & Signature

IDBI BANK LTD. ६४८ 648 Sadar Br. Nagpur

Bank official2 Name & Signature

--- --- Space for customer/office use - - - Please write below - - - ---

नितिन दीक्षित/NITIN DIXIT
सहा. महाप्रबंधक/AGM/SOM
क.कु.सं.-१०५३८६/EIN-105386

आनंद भिमटे/ANAND BHIMTE
सहा.महाप्रबंधक/AGM/ASSET OFFICER
ई.आई.एन.-113600/EIN-113600
सदर शाखा, नागपुर/Sadar Branch, Nagpur.

1

e-SBTR IS VALID UPTO SIX MONTHS FROM THE DATE OF PAYMENT.



महाराष्ट्र MAHARASHTRA ◑ 2023 ◑

NAGPUR TREASURY
BY 306536
14 JUL 2023
Stamp Head Clerk / Sr. Clerk

Development Agreement

This Development Agreement mutually agreed and entered into on this ___ day of July 2023 at Nagpur Municipal Corporation, Civil Lines, Nagpur.

BETWEEN

Nagpur Municipal Corporation, the urban local body for the city of Nagpur, duly established under and functioning as per the MMC Act, 1949 ("Act") through its Municipal Commissioner, having its office at Nagpur Municipal Corporation, Civil Lines, Mahanagar Palika Marg, Nagpur (hereinafter referred to as "NMC", which expression shall, unless excluded by or repugnant to the context or meaning thereof, mean and include its administrators, successors and assigns) OF ONE PART;

१) मुद्रांक विक्री नोंदवही अनु.क्रमांक: 12140

२) दिनांक: 14-07-2023

३) दस्ताचा प्रकार: Agreement

४) दस्त नोंदणी करणार आहेत का? ~~होय~~/नाही

५) मिळकतीचे थोडक्यात वर्णन- ...

६) मुद्रांक विकत घेणाऱ्याचे नाव व सही Praful red infra & Praful Deshmukh Associates 5 LLP - Dhanpeth Nagar

For

७) हस्ते असल्यास त्यांचे नाव व सही Ravi

८) दुसऱ्या पक्षकाराचे नाव

९) मुद्रांक शुल्क रक्कम 500

१०) दिनांक : 14-07-2023

सुबोध एस. ढेंगरे
ज्युडिशियल नॉन ज्युडिशियल
स्टॅम्प वेंडर ला. नं. 7/96,
तहसिल कार्यालय, नागपूर
कोड नं.:4601059

AND

PRAFULVED INFRA & PRAFUL DESHMUKH ASSOCIATE 5 LLP (Partnership Firm) having its registered office at F No 501, Shrikishna Residency, Dharampeth, Nagpur Maharashtra, 440010 (hereinafter referred to as "Developer") which expression shall where context so admits be deemed to include its successor or administrators and permitted assigns or assigns) of the OTHER PART;

NMC and the Developer are hereinafter referred to individually as the "Party" and collectively as the **"Parties".**

WHEREAS;

1. NMC has decided to develop the Orange City Street Project at Nagpur on the stretch of starting from Wardha Road up to Jaitala, Nagpur.

2. Currently NMC proposes to develop as a component of the Orange City Street Project, a Multi Utility Shopping Mall and Office spaces, with mix use project with requisite parking at the project site at Mauza Somalwada, Khamla, Bhamti, Jaitala CTS no. 615, 225, 270, 799, Nagpur.

3. Nagpur Municipal Corporation, is desirous that the Developer Execute the work for "DESIGN, BUILD, FINANCE, OPERATE and SALE OF MULTI UTILITY SHOPPING MALL WITH OFFICE SPACES, RESIDENTIAL APARTMENTS and mix use commercial complex at plot no. 5 site Near khamla Bazaar Square NAGPUR"

To Be Continued... 3

25-2-

4

4. NMC had carried out a competitive bidding process for the selection of a suitable developer to implement the aforesaid Project, and issued a Request for Proposal ("RFP") dated 26/12/2023 inviting proposals from the interested developers. Upon evaluation of the proposals received, NMC accepted the proposal of the Successful Bidder and issued Letter of Award ("LOA") No.10/EE/P/2023 dated 26/04/2023 to the Successful Bidder and invited to interalia execute this Development Agreement for implementation of the Project in accordance with the RFP and Corrigenda Provisions.

5. The Developer had submitted its technical and financial bid and after due technical evaluation, NMC has accepted the Financial Bid of the Developer and the Developer has a quoted lump-sum financial offer to be shared with NMC of **Rs. 111,75,00,945/-** from the sales of various components of the aforesaid Project.

6. The said bid of the Developer has been accepted by Honorable Municipal Commissioner/Administrator, Nagpur Municipal Corporation vide its Standing Committee Resolution No 350/NMC/Administration dated 17/04/2023

7. Whereas the developer was desirous to form SPV under RFP clause no. 6.2.2 and registered his SPV named M/S PRAFULVED INFRA & PRAFUL DESHMUKH ASSOCIATES 5 LLP vide letter no. 23/EE(P) dated 22/06/2023 has requested for approval of formation and name of SPV

8. Whereas the Administrator cum Municipal Commissioner vide his order dated 28-6-2023 has accorded approval of the formation of

To Be Continued... 4

SPV for this project and granted permission to SPV to enter into this agreement with NMC for the project.

9. Whereas the M/s Prafulved Infra Private Limited & Praful Deshmukh Now M/s Prafulved Infra & Praful Deshmukh Associates 5 LLP has Submitted the Performance Bank Guarantee on 11/07/2023 amounting to RS. 5,00,00,000/- (Five Crores Only) Reference No. 0045423IPG000004 from Indian Bank Shivaji Nagar, Nagpur, Valid Till 15/05/2025 in Favour of The Commissioner Nagpur Municipal Corporation & The Developer has explicitly owned and accepted the responsibility of extension of validity of the Bank Guarantee till the existence and upto the period as specified in contract without any notice from NMC.

10. Whereas NMC and the Developer are executing this Development Agreement to award to the Developer the development and sales rights including right and obligation with regards to designing, planning, financing, construction, operations and maintenance, marketing and sales of the components of the Multi Utility Shopping Mall with Office Spaces, Residential Apartments and requisite parking of the Project and the Developer has agreed to enter into this Development Agreement for execution of the Project on DBFOS basis subject to and on the terms, conditions and covenants set forth hereinafter.

Now this Agreement witness as follows.

1) In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of

To Be Continued... 5

25-7-27

contract hereinafter referred to and they shall be deemed to form and be read and construed as part of Agreement.

2) In consideration of the payments to be made by the Developer to NMC as hereinafter mentioned, the Developer hereby covenants with NMC to follow and abide to all aspects with the provisions of the contract (Volume I to IV).

3) The Developer shall have to complete the Project within the stipulated time frame and maintaining the quality parameters at all times from the date of the signing of this Agreement and as stipulated in all the contract documents mentioned below.

4) The following shall be deemed to form and be construed as part of this agreement viz.

- Volume I -Request for Proposal (RFP)
- Volume II- Development Agreement
- Volume III-Design Proposal.
- Volume IV-Drawings
- All corrigenda/addenda/Pre Bid Minutes/CSD etc issued from time to time
- Technical Presentation made by the Developer to the NMC Tender Committee dated 20/10/2021.
- Bid Signatory undertaking
- NMC Committee accepting the Bid of the Developer
- Letter of Acceptance
- Bank Guarantee Letter
- Financial Bid Opening document

To Be Continued... 6

- Plot Details
- Legal status of bidder

Any other documents listed in the Contract Date as forming part of the contract.

IN WITNESS THEREOF THE, PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED SEALED AND DELIVERED

For and on behalf of NMC by:

For and on behalf of Developer by

(Shri. PRAFUL N. DESHMUKH)
(PARTNER)

Shri. Rajiv Gaikwad
(_____)
(Chief Engineer PWD, NMC Nagpur)

25-7-23.

Authorized by the Resolution passed by the Governing Body of the Nagpur Municipal Corporation on __ day of July,2023.

THE COMMON SEAL OF DEVELOPER has been affixed pursuant to the resolution passed by the Board of Directors of the Developer at its meeting held on the ___ day of July, 2023 hereunto affixed in the presence of both, Directors, who has signed these presents in token thereof.

LETTER OF ACCEPTANCE

NMC/IWF/PRJ I/2023-24/3200

NAGPUR MUNICIPAL CORPORATION

OFFICE OF THE EXECUTIVE ENGINEER (PROJECT)
MAHANAGARPALIKA MARG, CIVIL LINES NAGPUR – 440 001
☎ 0712 – 2542831, ☎(Fax) 2561584

No : **10/EE(P) /2023** Date : **26 /04/2023**

LETTER OF ACCEPTANCE

To

PrafulVed Infra Pvt Ltd & Praful Narendra Deshmukh (Prop)(JV)
F.No 501, Shrikrishna Residency,
Dharampeth, Nagpur-440010

Subject: - Letter of Award (LOA) for Selection as Developer for the Construction of Mixed use Commercial at the NMC ORANGE CITY STREET PROJECT PLOT NO 5 site at Nagpur (Near Khamala Bazaar Square) on Design-Build-Finance- Operate and Sale (DBFOS) basis mode.

Dear Sir,

1. This is with reference to the bidding-process vide **NIT No.2022_ NMCN_ 828213_2 dated 09/11/2022** conducted by Nagpur Municipal Corporation, for the selection of Developer for the construction of Mixed use Commercial Complex at the NMC ORANGE CITY STREET PROJECT **Plot No 5** site at Nagpur (Near Khamala Bazaar Square) on Design-Build- Finance operate and Sale (DBFOS) basis mode.
2. Your company i.e. M/s PrafulVed Infra Pvt Ltd & Praful Narendra Deshmukh (Prop)(JV) Hereinafter referred to as Prafulved Infra Pvt Ltd & Praful Narendra Deshmukh (Prop)(JV) had submitted its technical and financial proposal in response to the above mention bidding on the bid submission date i.e. **23/12/2022** and was found technically qualified and hence your financial proposal was opened on **28/03/2023**

   Based on the evaluation of your financial proposal and in accordance with the bidding criteria of the RFP document and subsequent clarifications sought by Nagpur Municipal Corporation. we are pleased to inform you that Prafulved Infra Pvt Ltd has emerged as the H-1 bidder for the project and therefore is the Selected Bidder for the project

3. The quoted Lump-sum Financial offer to be shared by Prafulved Infra Pvt Ltd & Praful Narendra Deshmukh (Prop)(JV) with NMC from sale proceeds from the various components of the project is Rs. **111,75,00,945/-** Accordingly the proposal was submitted to the Secretary, Nagpur Municipal Corporation on **17/04/2023** and the Administrator Cum Municipal Commissioner, Nagpur Municipal Corporation has accorded approval to your proposal vide its **Resolution No-350/NMC/Administration dated 17/04/2023** and accepted and accorded consent/ approval to the proposal of PrafulVed Infra Pvt Ltd & Praful Narendra Deshmukh (Prop)(JV) to act as the Developer for the construction of Mixed Use Commercial Complex at the NMC ORANGE CITY STREET PROJECT Plot No 5 Site at Nagpur (Near Khamala Bazaar Square) on Design- Build – Finance- Operate and Sale (DBFOS) basis mode for the quoted lump-sum financial offer to be shared by PrafulVed Infra Pvt Ltd & Praful Narendra Deshmukh (Prop)(JV) with NMC of Rs. **111,75,00,945/-** and has selected PrafulVed as the Developer for the construction of Mixed Use Commercial Complex at the NMC ORANGE CITY STREET PROJECT Plot No 5 site at Nagpur (Near Khamala Bazaar Square) in accordance with the terms and conditions of the RFP document and its subsequent corrigenda.

4. In accordance with the approval of the Hon'ble Municipal Commissioner/Administrator, Nagpur Municipal Corporation vide its order dated. **17/04/2023** has given the approval for the implementation of your proposal.

5. The selected Bidder is also required to fulfill the terms and conditions as required in the RFP document and corrigenda issued by Nagpur Municipal Corporation at the earliest. The selected Bidder and the Nagpur Municipal Corporation shall also execute a development agreement, the draft of which was issued along with the RFP document. The terms and conditions to be fulfilled immediately on issue of this letter of Award are :-

a) Sign and return a duplicate copy of LOA to the NMC within 7 days.

b) Submit the **Performance Security. Rs. 5.0 Cr within 30 days of LOA.** (in the form of B.G) as per the RFP data sheet and RFP clause on 5.3

c) Execute the Development Agreement in accordance with the RFP document, subsequent corrigenda and sought clarifications, within 21 days of issue of this LOA.

d) Disburse the **upfront premium to NMC by paying minimum Rs. 2 Crores within 30 days of signing of Development Agreement i.e effective date. Balance Rs. 9.50 Cr by way of 5 equal Post-dated cheques of Rs. 1.90 Cr within 9 months from effective date.**

e) Submit the Rs. **11,17,501/-** denomination stamp paper/ by way of Franking for execution of the Development Agreement.

f) The Bid Security of **Rs. 10,00,000** (Rupees Ten Lacs Only) shall be retained till you have provided the performance security in accordance with the clause 5.2.8 of the RFP & as per this letter of Award and as a pre-condition to the execution of the Development Agreement.

g) All the terms and conditions of the RFP document, the subsequent corrigenda and the clarifications sought shall from part of the Development Agreement to be entered into subsequently.

6 The selected bidder and Nagpur Municipal Corporation shall finalize and execute the Development Agreement on the fulfillment of the above mentioned clauses i.e. 6 "a" to "z"

In token of unconditional acceptance of the above mentioned terms and conditions and this LOA, we request you to give an accepted duplicate copy of this letter of award within **seven (7) days** of its issue.

Execute Engineer (Project)
Nagpur Municipal Corporation

Accepted by

PRAFULVED INFRA PVT. LTD.

(Authorized Signatory)
(M/s Prafulved Infra Pvt Ltd.
&Praful Narendra Deshmukh (Prop)(JV)

Copy submitted to :-

1. Hon'ble Municipal Commissioner, NMC, Nagpur for information.
2. Hon'ble Chief Engineer, NMC, Nagpur
3. Hon'ble Deputy Director Town Planning , NMC. Nagpur
4. Superintending Engineer, NMC, Nagpur.
5. CAFO NMC Nagpur
6. Executive Engineer (Estate) NMC, Nagpur.
7. Architect Hafeez Contractor, Mumbai

BANK GUARANTEE



महाराष्ट्र MAHARASHTRA ◐ 2022 ◐

NAGPUR TREASURY
BU 884961
06 JUN 2023

BANK GUARANTEE REF NO : 0045423IPG000004 Date: 11/07/2023

To
The commissioner
Nagpur Municipal corporation civil Lines
Mahanagar Palika Marg Nagpur.

WHEREAS:

इंडियन बैंक
For INDIAN BANK
वरिष्ठ/मुख्य प्रबंधक
Asst./Sr. Chief Manager
नागपुर शाखा/Nagpur Branch

इंडियन बैंक
For INDIAN BANK
वरिष्ठ/मुख्य प्रबंधक
Asst./Sr. Chief Manager
नागपुर शाखा/Nagpur Branch

प्रकार/अनुच्छेद क्रमांक Bank

१) दस्त नोंदणी करणार आहेत काय ? होय/नाही

२) नोंदणी होणार असल्याय दुय्यम निबंधक कार्यालयाचे नाव दुय्यम निबंधक क्र

३) मिळकतीचे वर्णन -

४) मोबदला रकमा

५) मुद्रांक विकत घेणाऱ्याचे नाव Indian Bank

६) दुसऱ्या पक्षकाराचे नाव

७) हस्ते असल्याचे नाव Pramod

८) मुद्रांक शुल्क

९) मुद्रांक विक्री 9280 रुपये 7 JUN 2023

१०) मुद्रांक विक्री

नागनाथ गं. मोहाडीकर

मुद्रांक विक्रेता, ला. क्र. [illegible] जिल्हाधिकारी परिसर, [illegible]

A. Nagpur Municipal Corporation **("NMC")** as per the letter of Award dt. 26.04.2023 Whereby NMC has agreed to grant **Prafulved Infra Private Limited and Praful Narendra deshmukh** (the Developer) by the name of **SPV Prafulved Infra And Praful Deshmukh Associates 5 LLP**, the Concession for implementing the project for planning and development of commercial complex on plot 5 of OCSP at Jaiprakash Nagar, Nagpur. **("Project")** on design build finance, operate and sales ("DBFOS") basis and will enter into a Development Agreement (Agreement) subject to and in accordance with the provision of the Development Agreement.

B. The Agreement requires the Developer to furnish a performance security to NMC in a Sum of Rs. 5, 00, 00,000/- ("Rupees Five Crores Only) (the Bank Guarantee Amount) as security for due and faithful performance of its obligation, under and in accordance with the Agreement during for the Construction work (as defined in the Agreement).

C. We Indian bank, a body corporate constituted under the banking companies (Acquisition and Transfer of undertaking) Act v of 1970, having its corporate office at 254-260, avvai Shanmugam salal, Royapettah,Chennai-600014 Tamilnadu and one of its branch office at 199, Cement road, Shivaji Nagar Nagpur 440010 (hereinafter called the bank which expression shall include its successors and assign.)

NOW, THEREFOR, the Bank hereby, unconditionally and irrevocably, bank guarantees ad affirms as follows.

1. The Bank here unconditionally and irrevocable bank guarantees the due and faithful performance of the Developers obligations during the Construction Works. Under in accordance with the Agreement, and agrees and undertakes to pay to NMC, upon its mere first written demand, and without any demur. Reservation, recourse, contest or protest, and without any reference to the Developer, such sum or sump up to an aggregate sum of the Bank guarantee Amount as NMC shall claim, without NMC being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

इन्डियन बैंक
For INDIAN BANK
शाखा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Branch

इन्डियन बैंक
For INDIAN BANK
शाखा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Branch

2. A letter from the authorized representative of NMC that the Developer has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that NMC shall be the sole judge as to whether the Developer is in default in due and faithful performance if its obligations during the Construction Work under the Agreement and its decision that the Developer is in default shall be final and binding on the Bank, notwithstanding any differences between NMC and the Developer or any dispute between them pending before any court, tribunal, arbitrator or any other authority or of body or by the discharge of the Developer for any reason whatsoever.

3. In order to give effect to this Bank guarantee, NMC shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Developer and/or the Bank whether by their absorption with any other body of corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Bank guarantee.

4. It shall not be necessary, and the Bank hereby waives any necessity, for NMC to proceed against the Developer before presenting to the Bank its written demand under this Bank guarantee.

5. NMC shall have the liberty, without affection in any manner the liability of the Bank under this Bank guarantee to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfillment and /or performance of all or any of the obligations of the Developer contained in the Agreement of to postpone for any time and from time to time , any of the rights and powers exercisable by NMC against the Developer, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and / or the securities available to NMC, and the Bank shall not be released from its liability and obligation under these presents by any exercise by NMC of the liberty with reference to the matters aforesaid or by reason of time being given to the Developer or any other forbearance, indulgence, act or omission on the part of NMC or of any other matter or thing whatsoever which under any law relating to sureties and guarantors. Would but for this provision have the effect of releasing the Bank from its liability and obligation under this Bank guarantee and the Bank here by waives all of its rights under any such law.

6. Notwithstanding anything contained in any law for the time being in force or banking practice this guarantee shall not be assignable of transferable by the beneficiary:-

- Our liability under this bank Guarantee shall not exceed Five crore Rupees.
- This bank guarantee shall be valid up to 15-05-2025

इंडियन बैंक
For INDIAN BANK
सहा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Branch

इंडियन बैंक
For INDIAN BANK
सहा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Branch

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- We are liable to pay up the Bank guarantee amount only and only if we receive from you a written claim or demand no later than 12 months from the said expiry date i.e. 15-05-2025 (Expiry Date). Unless a written claim of demand under this Bank guarantee is received by us or within 12 months from the date of expiry of Bank guarantee i.e. 15-05-2026 (Claim Period Date) all your rights under this bank guarantee shall be extinguished and we shall have been from all liabilities hereunder. Irrespective of return of original guarantee.

7. This Bank guarantee is in addition to and not in substitution of derogation of any other bank guarantee of security now of which may hereafter be held by NMC in respect of or relating to the Agreement or for the fulfillment, compliance and/or performance of all or any of the obligations of the Developer under the Agreement

8. The bank undertakes not to revoke this Bank guarantee during its currency, except with the previous express consent of NMC in writing, and declares and warrants the it has the power to issue this bank guarantee and the undersigned has full powers to do so on behalf of the bank.

9. Any notice by way of request, demand of otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch. which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of NMC that the envelope duly acknowledged was so posted shall be conclusive.

10. This Bank guarantee shall come into force with immediate effect and shall remain in force and effect for a period specified in Paragraph 8 above

Signed and sealed this 11th day of July 2023 at Nagpur.

SIGNED SEALED AND DELIVERED

For and on behalf of the Bank by

कृते इंडियन बैंक
For INDIAN BANK

रक्षा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Br.

(Signature)

Designation: - Chief Manager

Code Number: 32614

Address:- 199, KAMALA BHAVAN
Cement Road, SHIVAJI NAGAR
Dharampeth Extension
NAGPUR

BANK CONFIRMATION

इंडियन बैंक Indian Bank

इलाहाबाद ALLAHABAD

NAGPUR BRANCH

NGP/2023-24/PRAFULVED INFRA **Date: 11/07/2023**

THE COMMISSIONER
NAGPUR MUNICIPAL CORPORATION
CIVIL LINES
MAHANAGAR PALIKA MARG
NAGPUR

Dear Sir,

Sub:- Confirmation of Bank Guarantee No 0045423IPG000004 dated 11/07/2023

This covering letter is issued to be annexed to the issuance of letter of Guarantee No 0045423IPG000004 dated 11/07/2023 for amount of Rs, 50000000/- (Rupees Five Crores Only) and valid upto 15/05/2025, executed on Non-Judicial Stamp Paper of Rs 500/-, issued by this Office under the joint signatures of Shri. Pradeep M, Chief Manager and Ms. Smruti Bansod, Manager.

This Guarantee is issued on behalf of our Customer M/s Prafulved Infra and Praful Deshmukh Associates 5 LLP, Flat No 501, Plot No 14A, Shrikrishna Residency, Dahake Layout, Dharampeth, Nagpur 440010.

Yours Faithfully,

Branch Manager

CC to:
Zonal Office,
Indian Bank,
Nagpur

PAPER ADVERTISEMENT AND ONLINE PUBLICATION OF THE TENDER

Ad.No2 356/PR लोकमत समाचार दि 10/11/2022

12x13

NAGPUR MUNICIPAL CORPORATION

NOTICE INVITING TENDER (2ND CALL)

Name of Work :- "Development of Commercial Complex under O.C.S.P Nagpur, on Plot No 5 (DBFMS) model."

NMC has decided to develop the Orange City Street Project (Plot No 5) at Nagpur on the stretch starting from Wardha Road up to Jaitala, Nagpur.

NMC desires to implement this project on Public Private Partnership (PPP) mode through the Design Build Finance Maintain and Sale (DBFMS) model wherein the prospective developer shall undertake the Designing, Financing, Construction, Maintenance and sales of the entire project.

NMC is therefore inviting proposals from established Infrastructure Development to be appointed as a Developer with Sales Rights for this prestigious project.

Bidding Process Time lines:-

The detailed RFP Document and other details are available on-line on the government website www.mahatenders.gov.in

Sr. No.	Event Description	Date
1	RFP Sale	09.11.2022 to 23.12.2022 till 5.00 pm
2	Last date of submission of written queries by prospective bidders	29.11.2022 upto 4.00 pm
3	Pre-Bid Meeting	29.11.2022 at 4.00 pm
4	NMC's response to written queries raised and issuance of corrigendum/ addenda, if any	Latest by 05.12.2022
5	RFP Application submission last date	23.12.2022 till 5.00 pm
6	RFP application opening date	26.12.2022
7	Presentation by Technically Qualified Bidders	02.01.2023
8	Financial proposal opening	Shall be intimated to the technical shortlisted bidders.
9	Earnest Money Deposit/Bid Security	Rs. 25,00,000/-
10	Tender Fees (Non-Refendable)	Rs. 25,000/-

NMC reserves the right to alter, modify any clause of the Bidding Documents including the Development Agreement and also to annul the bidding process without assigning any reason whatsoever.

Advt. No. 356/PR Date: 09/11/2022

Executive Engineer (Project)
Nagpur Municipal Corporation, Nagpur

PR/2209

Ad.No2. 356/PR

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Executive Engineer (Project)
Nagpur Municipal Corporation, Nagpur

PR/2209

12X13

Adv.No2 356/PR टाईम्स ऑफ इंडिया दि 10/11/2022

NAGPUR MUNICIPAL CORPORATION

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Executive Engineer (Project)
Nagpur Municipal Corporation, Nagpur

Advt. No. 356/PR Date: 09/11/2022

PM22039

Maharashtra Tenders

eProcurement System Government of Maharashtra

Tender Details

Date : 10-Nov-2022 04:12 PM

Print

Basic Details

Organisation Chain	Nagpur Municipal Corporation Nagpur||Water Works		
Tender Reference Number	01/EE(P)/2022		
Tender ID	2022_NMCN_828213_2		
Tender Type	Open Tender	**Form of contract**	Percentage
Tender Category	Works	**No. of Covers**	2
General Technical Evaluation Allowed	No	**ItemWise Technical Evaluation Allowed**	No
Payment Mode	Online	**Is Multi Currency Allowed For BOQ**	No
Is Multi Currency Allowed For Fee	No	**Allow Two Stage Bidding**	No

Payment Instruments

Online Bankers	S.No	Bank Name
	1	SBI Bank

Cover Details, No. Of Covers - 2

Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.rar	Technical Documents
2	Finance	.xls	BOQ

Tender Fee Details, [Total Fee in □ * - 25,000]

Tender Fee in □	25,000		
Fee Payable To	Nil	**Fee Payable At**	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in □	25,00,000	**EMD through BG/ST or EMD Exemption Allowed**	No
EMD Fee Type	fixed	**EMD Percentage**	NA
EMD Payable To	Nil	**EMD Payable At**	Nil

Click to view modification history

Work /Item(s)

Title	Development of Commercial Complex under O.C.S.P Nagpur, on Plot No 5 (DBFMS) model				
Work Description	Development of Commercial Complex under O.C.S.P Nagpur, on Plot No 5 (DBFMS) model				
Pre Qualification Details	Please refer Tender documents.				
Independent External Monitor/Remarks	NA				
Show Tender Value in Public Domain	Yes				
Tender Value in □	1,11,50,00,000	**Product Category**	Civil Works	**Sub category**	NA
Contract Type	Tender	**Bid Validity(Days)**	180	**Period Of Work (Days)**	1095
Location	Nagpur	**Pincode**	440015	**Pre Bid Meeting Place**	Office of the Chief Engineer, NMC, Nagpur
Pre Bid Meeting Address	Office of the Chief Engineer, NMC, Civil Lines, Nagpur	**Pre Bid Meeting Date**	29-Nov-2022 04:00 PM	**Bid Opening Place**	Office of the Executive Engineer (Project), NMC
	No		No		

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Should Allow NDA Tender		Allow Preferential Bidder	

Critical Dates

Publish Date	10-Nov-2022 05:00 PM	**Bid Opening Date**	26-Dec-2022 05:00 PM
Document Download / Sale Start Date	10-Nov-2022 05:00 PM	**Document Download / Sale End Date**	23-Dec-2022 05:00 PM
Clarification Start Date	NA	**Clarification End Date**	NA
Bid Submission Start Date	10-Nov-2022 05:00 PM	**Bid Submission End Date**	23-Dec-2022 05:00 PM

Tender Documents

NIT Document

S.No	Document Name	Description	Document Size (in KB)
1	Tendernotice_1.pdf	NIT	226.32

Work Item Documents

S.No	Document Type	Document Name	Description	Document Size (in KB)
1	Tender Documents	RFP.pdf	RFP	781.51
2	Additional Documents	VOLUME-II.pdf	VOLUME-II	714.84
3	Additional Documents	VOLUMEIII.pdf	VOLUME-III	995.88
4	Additional Documents	DRAWINGS.pdf	DRAWINGS	15516.22
5	BOQ	BOQ_1474623.xls	BOQ	315.50

Bid Openers List

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	borkarnv14@gmail.com	Naresh Borkar	NARESH VASANTRAO BORKAR
2.	mtalewar.nag@gmail.com	Manoj Talewar	MANOJ HARIBHAU TALEWAR
3.	financedepttnmc@gmail.com	Nitin Sakore	NITIN UPASRAO SAKORE

Tender Properties

Auto Tendering Process allowed	No	**Show Technical bid status**	Yes
Show Finance bid status	Yes	**Show Bids Details**	Yes
BoQ Comparative Chart model	Normal	BoQ Compartive chart decimal places	2
BoQ Comparative Chart Rank Type	L	Form Based BoQ	No

Tender Inviting Authority

Name	Executive Engineer (Project), NMC, Nagpur
Address	Office of the Executive Engineer (Project), NMC, Nagpur

Tender Creator Details

Created By	Naresh Borkar
Designation	Executive Engineer
Created Date	10-Nov-2022 03:52 PM

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RFP DOCUMENT

Volume I:

REQUEST FOR PROPOSAL (RFP) DOCUMENT FOR DEVELOPMENT OF NMC MIXED USE COMMERCIAL COMPLEX PROJECT ON PLOT NO. 5 OF ORANGE CITY STREET PROJECT OF NMC AT NAGPUR ON DESIGN, BUILD, FINANCE, MAINTAIN and SALE MODE.

Project Proponent:

NAGPUR
MUNICIPAL CORPORATION

Issued by:
Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg, Nagpur.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com

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NOTICE INVITING REQUEST FOR PROPOSAL

Nagpur is administered by the Nagpur Municipal Corporation (NMC), which is a democratically elected civic governing body.

NMC has decided to develop the Orange City Street Project at Nagpur on the stretch starting from Wardha Road up to Jaitala, Nagpur.

Currently NMC proposes to develop as a component of the Orange City Street Project, a Mixed Use Commercial Complex at Plot No. 5 of the Orange City Street Project along the Khamla Road.

NMC plans to implement this Project on Public Private Partnership (PPP) mode through the Design-Build-Finance-Maintain and Sale (DBFMS) model wherein the prospective developer shall undertake the Designing, Financing, Construction, Maintenance and Sales of the entire project.

The proposed plot is having area of 7534 sq. mtr of which the FSI permitted by the Town Planning Department is 2.75 as per the UDCPR 2020 and the restriction on height as approved by AAI is 46.32 meters which generally allows a building above existing ground level.

The developer has to develop the project within the above mentioned framework.

The prospective developer has to undertake its own designing& planning for the Project as per the prevalent development control rules and guidelines..

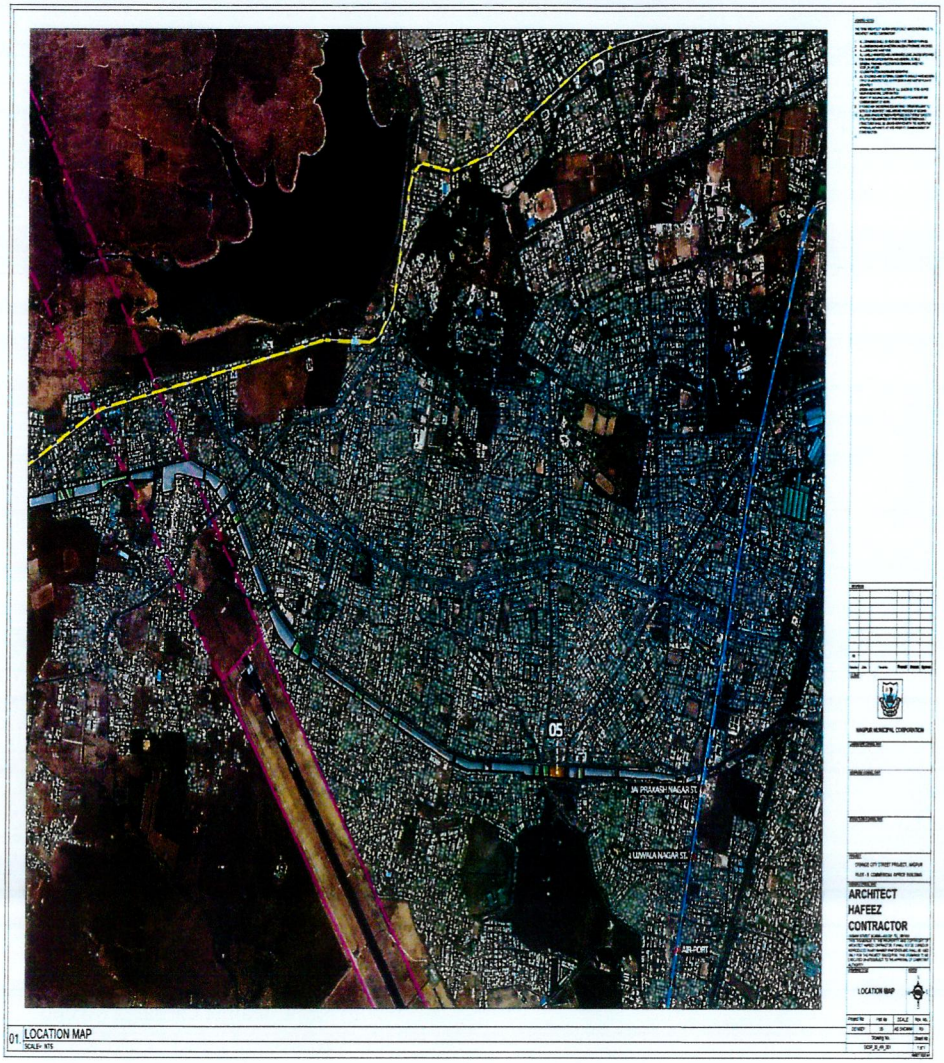
The elevational characters planned by NMC for the Project should be maintained by the prospective developer to maintain the similarity for the entire OCSP.

The characteristics of the Elevational Drawings shall be suitable to the developers planning and commensurate with the Elevational Drawings provided in the Volume III of the bidding documents. This shall be analyzed by the prospective bidders prior to submission of their application.

For further details please contact:

Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg, Nagpur.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com

Google Location of the Project Site



Schedule of Bidding Process

The detailed RFP Document and other details are available on-line on the government website www.mahatenders.gov.in		
Sr No.	Event Description	Date
1	RFP Sale	18.08.2022 to 03.10.2022 till 5.00 pm
2	Last date of submission of written queries by prospective bidders	02.09.2022
3	Pre-Bid Meeting	02.09.2022 at 4.00 pm
4	NMC's response to written queries raised and issuance of corrigendum/ addenda, if any	06.09.2022
5	RFP Application submission date	03.10.2022 till 5.00 pm
6	RFP application opening date	06.10.2022
7	Presentation by Technically Qualified Bidders	13.10.2022
8	Financial proposal opening	Shall be intimated to the technical shortlisted bidders.

Proposal Data Sheet

Sr. No.	Key Information	Details
1.	**Name of the Project**	Development of the Mixed-Use Commercial Complex on DBFMS mode at Plot No. 5 of the Orange City Street Project along the Khamla Road
2.	**Location of the Project**	Plot No 5, Orange City Street Project, City Survey No 61. Khasra-Khamla Dist-Nagpur, Maharashtra.
3.	**Name of the Authority**	Nagpur Municipal Corporation
4.	**Earnest Money Deposit /Bid Security**	Rs 25, 00, 000/- (Rupees Twenty-Five Lacs only).
5.	**Tender Fees (Non-Refundable)**	Rs 25,000/- (Rupees Twenty-Five Thousand only) plus applicable GST
6.	**Bidding Parameter**	Maximum Lump-sum Financial Offer to be shared with NMC against the sales revenue earnings from the various components of the Project as spelt out elsewhere in this document and the Development Agreement.
7.	**Performance Security**	Rs 5 (Five) crores.
8.	**Contact Person**	Executive Engineer (Project), NMC.

DISCLAIMER

The information contained in this Request for Proposal document (the "RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the Authority or any of their employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is neither an offer nor invitation by the Authority to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in preparing their proposal pursuant to this RFP (the "Bid"). This RFP includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law.

The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Authority, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Bidding Process.

The Authority also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP.

The Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that the Authority is bound to select a Bidder or to appoint the Agency, as the case may be, for the Project and the Authority reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and the Authority shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

1. Glossary

1.	**Associate:**	As defined in Clause6.1.1c
2.	**MSL:**	Mean Sea Level
3.	**Bid Security:**	As per Proposal Data Sheet
4.	**Company:**	means the company acting as the Developer under the Development Agreement.
5.	**Developer:**	shall mean the selected bidder that executes the Development Agreement with NMC.
6.	**Development Agreement:**	Volume II of the Bidding Documents
7.	**Conflict of Interest:**	As defined inClause6.1.1c
8.	**Consortium:**	As defined inClause6.1.1a
9.	**DBFMS:**	Design, Build, Finance, Maintain and Sales
10.	**Financial Capacity:**	As defined in Clause 7.1.1(b)
11.	**Financing Documents:**	The set of documents constituting the agreement between the Developer and the Lender for the purpose of providing debt financing to this Project
12.	**Government:**	Govt. of India or Govt. Of Maharashtra
13.	**H1 Bidder:**	As defined in Clause 8.3.1
14.	**Lead Member:**	As defined in Clause 6.2.2 c
15.	**LOA:**	Letter of Award
16.	**Member:**	Member of a Consortium
17.	**NOC:**	No Objection Certificate
18.	**NMC:**	Nagpur Municipal Corporation
19.	**Net Worth:**	As defined in Clause 7.2.1

20. **Other Background Documents:**	This includes the UDCPR 2020 & its updations, State Government Gazette Notifications and any other documents if subsequently issued during the Bidding Process
21. **Performance Security:**	As defined in the Volume II Development Agreement
22. **PPP:**	Public Private Partnership
23. **Project:**	means development of the Mixed Use Commercial Complex through DBFMS.
24. **Re. or Rs. or INR:**	Indian Rupee
25. **RFP:**	Request for Proposal
26. **Similar Projects:**	As defined in Clause 7.1.3
27. **Technical Capacity:**	As defined in Clause 7.1.1 a

The words and expressions beginning with capital letters and defined in this document shall, unless repugnant to the context, have the meaning ascribed thereto herein.

3. INTRODUCTION

3.1 Background

3.1.1 About Nagpur City:

a. Nagpur is the third largest city and the winter capital of the state of Maharashtra.

It is the 13th largest city in India by population and according to an Oxford's Economics Report; Nagpur is projected to be the fifth fastest growing city in the world from 2019 to 2035 with an average growth of 8.41%.

It has been proposed as one of the Smart Cities in Maharashtra and is one of the top ten cities in India in Smart City Project execution.

Nagpur also known as the "Orange City" has officially become the greenest, safest and technologically developed city in the Maharashtra state.

As per the 2011 census, Nagpur municipality has a population of 2,405,665. The total population constitutes 1,225,405 males and 1,180,270 females.

Nagpur is an emerging metropolis. Nagpur's nominal GDP was estimated to be around Rs. 1,406,860 million in 2019–20, making it the largest economic center in entire central India.

Nagpur district has a per-capita GDP of Rs. 270,617 as of 2019-20 financial year, being the highest in the central India

b. Nagpur is administered by the Nagpur Municipal Corporation (NMC), which is a democratically elected civic governing body.

c. NMC has decided to develop the Orange City Street Project at Nagpur on the stretch of starting from Wardha Road up to Jaitala, Nagpur.
The total area under development is approx. 70 Hectares. The project is divided into 21 plots having different components covering commercial, medical, housing, education projects.

d. Currently NMC proposes to develop as a component of the Orange City Street Project, a Commercial Complex at Plot No. 5 of the Orange City Street Project along the Khamla Road.

e. This Project will help the people of the region i.e. the existing citizens of the region in the vicinity to have access to world class yet affordable shopping, office space, dining and recreation experience in the commercial heart of the city.

f. NMC plans to implement the Project on Public Private Partnership (PPP) mode through the Design-Build-Finance-Maintain and Sale (DBFMS) model wherein the prospective developer shall undertake the Designing, Financing, Construction, Maintenance and Sales of the various components of the project

g. NMC has appointed M/s Architect Hafeez Contractor as the Project Management Consultant (PMC) for the monitoring of the construction of the entire Orange Street Project including this Mixed Use Commercial Complex on Plot No. 5

h. The prospective Bidder shall be selected under a Single Stage Two Envelope bidding process and a technically qualified bidder offering Maximum Lump-sum Financial Offer to NMC shall be the selected bidder.

i. NMC has, thus, decided to carry out the Domestic Competitive Bidding Process for selection of an entity to whom the Project may be awarded.

3.1.2 Purpose of this Bidding Process:

The selected bidder(**"Developer"**)shall be responsible for the, designing, engineering, financing, procurement, construction, maintenance, marketing and sales of the various Project components under and in accordance with the provisions of a long-term joint development agreement (the "**Development Agreement**") to be entered into between the Developer and the NMC in the form provided by NMC as part of the Bidding Documents provided hereto.

3.1.3 Constitution of Bidder:

A prospective bidder can be a Company under Companies Act, 1956/2013 or Partnership Firm formed under the Partnership Act 1932 or an LLP under the LLP Act 2008 or a Proprietorship firm registered under the relevant Act in India or a Government-owned entity.

4. SCOPE OF WORK

4.1 Key Features of the Project

a. The Developer shall construct the Mixed Use Commercial Complex on Plot No of OCSP on a total plot area of 7534 square meters within a period of 36 (Thirty Six) months.

b. The Developer shall have the development and sales rights on the Project for a period of 84 (eighty four) months including the construction period of 36 months from the date of signing of the Development Agreement. For any extension of time beyond the stipulated 84 months, the decision shall be solely with NMC and the decision of NMC in this regard shall be final and binding without incurring any cost or liabilities on NMC.

c. In the event that completion of Project construction does not occur on or before a period of Thirty Six Months from the Commencement Date for any reasons attributable to Developer, NMC may allow a grace period of maximum 60 days.
After completion of this grace period of 60 days, the matter shall be presented to the Empowered Committee of NMC and the decision regarding continuation/termination/payment of penalty by the Developer for such delay, shall be taken by the Empowered Committee after evaluatingthe reason/s for such delay.

d. The construction cost as estimated by NMC and its PMC is approx. Rs. 160 Crores (Rupees One Hundred and Sixty Crores). The Project Cost is inclusive of lifts and all other peripheral development in and within the proposed land parcel. The Project Cost is only indicative and may change depending on any changes in the project designs. The Project Cost to be adopted shall be as per the Financing Agreements and approved DPR.

e. Post signing of the Development Agreement with NMC and on issue of Commencement Certificate from NMC, the Developer can market the project and undertake the Sales of the various components of the said Project.

f. The ownership of the project land shall vest with NMC till the construction and sales of the Project.

g. The buyer shall be entitled to an undivided share of the Project land in proportion to the area of the Project component purchased by it and this would be incorporated in the Sale Deed/ Deed of Apartment or any such ownership document that is permitted as per law will be registered by NMC

in the name of the buyer through the Developer. The Developer shall act as a facilitator to register the document with Registrar on behalf of NMC.

h. The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement.

i. The Sale Agreement with prospective buyers shall be a tripartite agreement with NMC, Developer and the buyer as the three parties.NMC shall nominate its authorized signatory for the purpose of registration of the tri-party agreement immediately on intimation by the Developer.

j. Ownership document to be signed by NMC with the prospective buyers can be a Sale Deed or Deed of Apartment or any other legal document which transfers the ownership of the project component to the buyer and all such documents as recognised by the prevailing law and depending on the legal implications of the same at the time of execution.

k. The Developer can facilitate for signing of either Sale Deed or Deed of Apartment depending on its profitability but at no time shall such signing is against any prevailing law and NMC shall bear no liability in this regard.

l. The Developer should be able to generate revenues, based on its independent risk analysis, from the commercial sale of the various components of the Mixed-Use Commercial Complex in compliance with the applicable law.

m. The Developer would have the flexibility to develop and sell the various components of the Mixed Commercial Complex after necessary approval from NMC.

n. NMC has planned that at-least the first four floors of the Mixed-Use Commercial Complex should be developed for commercial purposes only

o. In case the Developer intends to lease out the facility/any portion of it to any third party, then the Developer shall need to purchase and get such portion of the facility registered in its own name by appropriate lawful mechanism before leasing out the given space. NMC shall be paid the revenue share from such sales as if it has been sold at commercial rates.

4.2 Detailed Scope of Work of Developer:

a. Design the project in line with the elevational drawings issued by NMC in Volume III of the bidding documents.

b. Appoint its own architect for the project.

c. In case the prospective developer plans to develop the project beyond the FSI and height utilization allowed under this RFP by NMC and utilizes additional FSI and height, then such revised drawings shall be submitted and approved by NMC.

d. Such additional utilization shall constitute Additional Development as spelt out in Development Agreement.

e. The charges for the revision/scrutiny of designs shall be borne by the developer. The charges shall be waived off only for the first submission by the prospective developer.

f. Undertake the Sales of the various components of the Mixed Commercial Complex and demand, collect, retain and appropriate sales revenues.

g. Disburse to NMC the Upfront Premium and the quoted Financial Offer over and above the minimum amount as per the payment schedule described in the Development Agreement.

h. Deploy adequate number of Staff/O&M agency for proper operation and maintenance of the Mixed Use Commercial Complex till the entire Project is handed over to the buyers" and the society is formed;

i. To obtain the Environment Clearance for the project from the Ministry of Environment & Forest, Government of India or Government of Maharashtra, as the case maybe.

j. In case of revision of the drawings, obtain the approval of the Town Planning Department, NMC and obtain the revised Fire NOC and pay the necessary revision charges as applicable.

k. In case of revision of the drawings obtain the revised Airport Authority of India NOC and pay the necessary revision charges as applicable.

l. In case the Developer intends to include Hotels, Restaurants and Hospitals/Clinics within the Project Facilities then obtaining the necessary applicable Statutory Clearances as well as approval from Town Planning/Health

Department, NMC shall be the sole responsibility of the Developer and NMC shall incur no liability for the same.

m. For any relaxations sought by the Developer with regard to the preparation and approval of the Construction Drawings as per the prevailing UDCPR 2020 and Town Planning Department of NMC, the decision of the Commissioner shall be final and binding. All relevant charges for obtaining such relaxations shall be borne by the Developer and NMC shall incur no liability in this regard. If any relaxation from the norms of the UDCPR 2020 /Town Planning Department is allowed and this enhances the revenue earning of the Developer, such benefits of the enhanced revenue shall be shared equally with NMC, failing which such relaxations would be cancelled.

n. Make, or cause to be made, necessary applications to the relevant Government Agency with such particulars and details as may be required for obtaining Applicable Permits, comply with all applicable requirements, guidelines etc. laid down under the Applicable Laws and and obtain and keep in force and effect such Applicable Permits in conformity with the Applicable Laws;

o. To undertake all activities for conforming to RERA compliance including maintaining the books of accounts and compulsory registration with MAHARERA.

p. Would be responsible for attending and rectifying any Project/construction related grievances of the buyers" for a period of 10 years from the date of issuance of the Occupancy Certificate by NMC.

q. Would be responsible for attending to any grievances arising during construction as a result of changes in the structural plan of the Project for a period of 10 years from the date of issuance of the Occupancy Certificate by NMC.

r. Plan the proposed facility as a "Green Building" with smart features and the bidder shall get it certified from relevant Indian authorities" viz. IGBC/ GRIHA/ASSOCHAM etc.

s. Provision for generation of power through use of Solar panels should beplanned in the Facility.

t. Parking**:** It is desired by NMC to have ample parking at the facility and hence it should be the endeavor of the Developer to have ample parking facility for the Project subject to the following:

    i. The planning for the parking at the Project Site shall be strictly in consonance with the UDCPR 2020 (as modified) on the date of approval of the plans.

ii. As per the present planning, parking is proposed on the lower & upper basements of the proposed building. It should be the endeavour of the Developer to maximize the parking area.

iii. NMC desires that the Developer should plan for development of mechanical parking facilities at the Project Site.

iv. The Operation & Maintenance of the parking area shall be with the Developer for a period of Ten (10) years from the issuance of the Occupancy Certificate.

v. The Developer can charge fees/O&M charges from the buyers/society for such operation & maintenance. The Developer shall manage its cost for such O&M from the fees/O&M charges collected/own resources and NMC shall in no way be responsible for any such O&M responsibilities and costs.

u. Advertisement:

i. The Developer can identify and enlist the locations & spaces suitable for display of commercial advertisements in consonance with the present planning and in consultation with M/s Architect Hafeez Contractor.

ii. The location & spaces shall be compliant with rules and regulations prevalent at that point of time. The area and list shall be submitted and got approved from the competent authority and shall be notified to NMC.

iii. The right to lease and earn Advertisement Revenue from the Project shall be with the Developer for a period of Ten (10) years from the issuance of the Occupancy Certificate

v. The sole responsibility for the payment of the maintenance charges for the Mixed Use Commercial Complex facility shall be with the Developer for a period of Ten (10) years from the issuance of the Occupancy Certificate.NMC shall not be liable to pay any maintenance charges for the Mixed Use Commercial Complex facility including the Common Areas. The Developer shall be responsible for the marketing and sales of the Project facility.

w. The Successful Bidder may undertake Construction Works by itself or through a notified Contractor possessing requisite technical, financial and managerial expertise / capability; but in either case, the Successful Bidder shall remain solely responsible to meet specifications mentioned under the Development agreement.

x. The Development Agreement sets forth the detailed terms and conditions for grant of the Project to the Developer, including the scope of the Developer"s obligation.

y. The Successful Bidder shall perform and fulfill all other obligations mentioned in the Development Agreement and to undertake all other activities, works and things incidental thereto or necessary for the performance.

4.3 Guidelines for development at the Site:

a. Applicable UDCPR 2020 for the Project Site on the date of submission of plans to the authority.

b. Floor Space Index (FSI) limits including any enhancements;

c. Obtaining and adopting the statutory requirements including but not limited to Fire, Health, Environment, as required.

d. Obtain approval of the designs from the ADTP, NMC, in case of any revisions in its Project Designs already approved by ADTP, NMC, it shall be the responsibility of the Developer to get such revised drawings approved from the Town Planning department of NMC.

e. Seek NMC approval for the Project DPR and its revisions/up-dations, if any.

f. Any other development with the prior written approval of NMC.

g. Technical Specifications shall be minimum as per the Volume III of this bidding document and when not specifically mentioned then the prevailing specifications of PWD, Government of Maharashtra, CPWD, Government of India and Standard Codes such as Bureau of Indian Standards, other Indian Standards and good engineering practices shall prevail.

h. Intimation of every sale shall be made to NMC by the developer immediately on finalization of terms with buyer and before receipt of first down payment from the Purchaser.

i. The Developer shall appoint a facility management firm to maintain and manage the proposed facility with the approval from NMC for a period of 10 years from the Occupancy Certificate, for proper operationand maintenance of the Mixed-Use Commercial Complex till the complete Project is handed over to the buyers" and a society is formed.

4.4 Exclusions:

a. The development mix shall not include educational institutions, industrial set-ups and warehouses.

b. The Successful Bidder cannot develop and market the Project or a portion of the Project as plotted development.

5. Description of the Bidding Process.

5.1 Bidding through E-Tendering System:

a. Bid shall be submitted electronically /online through the Procurement Portal website www.mahatenders.gov.in. Detailed guidelines for viewing bids and submission of online bids are given on the website. The Invitation for Bids under NMC is published on this website. Any citizen or prospective bidder canlogon to this website and view the Invitation for Bids and can view the details ofworks for which bids are invited. In order to submit their Bids through the Procurement Portal, Bidders are required to be enrolled/ registered on the Procurement Portal, for which purpose they are required to have enrolment/registration in the website and should have a valid digital signature certificate in the form of smart card/e- token obtained from any authorized certifying agencies. For detail information of smart card /e-token bidders shall visit link <Information About DSC> at right hand corner of Procurement Portal website www.mahatenders.gov.in.

b. The bidder should register on the website www.mahatenders.gov.in using the relevant option available. Then the Digital Signature registration has to be done with the e-token, after logging into the site. After this, the bidder can login the site through the secured login by entering the password of the e-token and the user id/ password chosen during registration.

   After getting all the Volumes of the Bidding Documents, the Bidder should go through them carefully and then submit the documents as required; otherwise, its bid will be rejected.

   The completed bid comprising of all requisite documents, should be uploaded on the website given above through e-tendering along with scanned copies of requisite certificates as are mentioned in different sections in this bidding document.

c. The "Bidding Documents" includes this RFP, Development Agreement and the Design Proposal. The aforesaid documents and any corrigenda/addenda issued subsequent to this RFP Document will also form a part of the Bidding Documents.

d. The bid application is to be submitted online in Two bid system i.e. „A" containing Technical bid and „B" containing Financial bid, the Financial bid shall be opened only if necessary documents are found in technical bid and after the Technical evaluation is completed.

   The due date of opening of financial bid shall be communicated to the prospective Bidders or their authorized agents.

e. The Bidding Documents will be available online at **www.mahatenders.gov.in**("Procurement Portal"). To participate in the Bidding, Bidders will be required to pay a **non-refundable fee of Rs. 25,000/- (Rupees Twenty Five Thousand Only) plus applicable GST** as the fees toward the cost of the Bidding Documents through the online payment gateway available on the Electronic Tendering System. For the list of options for making online payments, the bidders are advised to visit the link E-Payment Options available on the web site mahatenders.gov.in.

5.2 Bid Security

5.2.1 Bidders shall deposit, along with their Bid, a Bid Security of Rs. 25, 00,000/- (Rupees Twenty Five Lacs only) **(the "Bid Security")**.

5.2.2 The Bid Security can be paid by:

a. RTGS/NEFT.

Or

b. Bank Guarantee (BG) in the favour of Executive Engineer (Project) NMC valid for 6 months from the date of submission of bids drawn from any Nationalised Bank with branch at Nagpur.

Or

c. Term Deposit Receipt (TDR) from any Nationalised Bank with branch at Nagpur pledged in the name of Executive Engineer (Project) NMC.

The above mentioned instruments i.e. RTGS or NEFT receipt/BG/TDR should be scanned and uploaded along with Part A-Technical Bid and the original of the same shall be submitted in the office of the Executive Engineer-Project, NMC within two days after the application due date and shall not be submitted before submission of the application due date

5.2.3 In case of online payment of the Bid Security, the list of options for making online payments, the bidders are advised to visit the linked E-Payment Options available on the web portal mahatenders.gov.in and submit a receipt generated online in scanned form along with online submission and the copy of the receipt generated online should be submitted in separate envelope with

envelope "Technical Bid" to be submitted in hard form as per scheduled time mentioned herein at the office of NMC, Civil Lines, Nagpur.

5.2.4 The bid application without the Bid Security shall be summarily rejectedby NMC as non-responsive.

The Bid Security in the form of exemption certificate issued by any registration authority shall not be accepted.

No relaxation of any kind on Bid Security shall be given to any Bidder. NMC shall not be liable to pay any interest on the Bid Security deposit so made and the same shall be interest free.

5.2.5 The Bid Security of unsuccessful Bidders will be returned by NMC, without any interest, as promptly as possible on acceptance of the bid application of the Selected Bidder or when the Bidding Process is annulled by NMC, and in any case within 180 (One Hundred and Eighty) days from the Application Due Date.

5.2.6 The Selected Bidder"s Bid Security will be returned, without any interest, upon the Developer signing the Development Agreement and furnishing the Performance Security by way of an irrevocable Bank Guarantee of a Nationalized Bank equivalent to Rs. 5 Crores (Rupees Five Crores) in accordance with the provisions in the Development Agreement. NMC may, at the Selected Bidder"s request, allow the Selected Bidder to adjust the Bid Security in the amount of Performance Security to be provided by him in accordance with the provisions of the Development Agreement.
The Selected Bidder shall ensure that the validity period of the Bid Security is extended as per the requirement of the LOA/Development Agreement.

5.2.7 NMC shall be entitled to forfeit and appropriate the Bid Security as Damages inter alia in any of the events specified in Clause 5.2.8 herein below. The Bidder, by submitting its Application pursuant to this RFP, shall be deemed to have acknowledged and confirmed that NMC will suffer loss and damage on account of withdrawal of its Application or for any other default by the Bidderduring the Application Validity Period as specified in this RFP. No relaxation ofany kind shall be given to any Bidder in respect of the forfeiture of the Bid Security for the purposes of this clause.

5.2.8 The Bid Security shall be forfeited as Damages without prejudice to any other right or remedy that may be available to NMC under the Bidding Documents and/ or under the Development agreement, or otherwise, under the following conditions:

a. If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as specified in Section 9 of this RFP;

b. If a Bidder withdraws its Application during the Application Validity Period as specified in this RFP and as extended by mutual consent of the respective Bidder(s) and NMC;

c. In the case of Selected Bidder, if it fails within the specified time limit –

i. to sign and return the duplicate copy of LOA; or
ii. to sign the Development agreement; or
iii. to furnish the Performance Security within the period prescribed thereof in the LOA.

5.3 Performance Security:

The Successful Bidder on or before the date of signing of the Development Agreement shall:

a. Furnish Performance Security of Rs 5 crores (Rupees Five Crores) by way of irrevocable Bank Guarantee issued by a Nationalised Bank having branch in Nagpur in favour of NMC, as required under the Development Agreement.

b. The Performance Security shall be applicable for a period of 84 (eighty four) months or till the subsistence of the Development Agreement, whichever is later.

c. The Developer can submit the Bank Guarantee for one year at a time but it shall be the responsibility of the Developer to renew the same annually and NMC shall not be responsible for the same in any way. The Bank Guarantee submitted shall have a clause for claim period of additional one year as per standard practice.

d. Failure of the Successful Bidder to submit the Bank Guarantee within the time specified shall constitute sufficient grounds for the annulment of the Letter of Award and forfeiture of the Bid Security.

In such an event, the NMC reserves the right to:

i. Either invite the next best Bidder to match the Bid submitted by the Successful Bidder

OR

ii. Call for fresh Bids

OR

iii. Take any such measure as may be deemed fit in the sole discretion of NMC, including annulment of the bidding process.

5.4 Bidding Procedure

a. The bidders are expected to fill their tender carefully and scrutinize the same before sending on online (https://mahatenders.gov.in) No variation on any grounds such as mistakes, or misunderstanding will be allowed after the tender is opened, recommended, or accepted.

b. Bidders are advised to examine the Project site in greater detail, and to carry out, at their cost, such studies as may be required for submitting their respective Applications together with all required documents towards award of the concession for the Project.

c. NMC has decided to adopt an online single stage two envelope process (the "**Bidding Process**") for selection of the bidder for award of the Project. It involves:

Qualification (the "**Qualification**") of the interested parties/consortia (the "**Bidder**", which expression shall, unless repugnant to the context, include the Members of the Consortium) who submit a qualification application (the "**Qualification Application**") in accordance with the Annexure A - Qualification Application. Bidders meeting the Technical and Financial Capacity as set out in Clause 7.1.1 will be short-listed (the **"Technically Qualified Bidders**") and will be entitled for opening of the Financial Proposal.

d. The bidding shall be online and the bidder shall submit online scanned copies of all documents duly self attested, specifically mentioned in Qualification Criteria.

e. Evaluation of the financial application (the "**Financial Proposal**") of the Qualified Bidders made in accordance with **Annexure C - Financial Proposal**.

f. The bidder shall quote its offer as the Maximum Lump-sum Financial Offer to NMC from the Sale proceeds of the various components of the Project.

g. The Maximum Lump-sum Financial Offer to be shared with NMC must be quoted in Rs figures as well as in words as specified in the financial bid.

h. The bidder shall also pay to NMC the Upfront Premium as indicated elsewhere in this document.

i. The financial offer to be submitted in the financial bid format online as well as in the hard copy submission. In case of any discrepancy in the online financial bid format, the hard copy of the financial bid shall be considered as final.

j. The Project shall be awarded to the Bidder, who is the Technically Qualified Bidder and who has quoted the Maximum Lump-sum Financial Offer with NMC from the Sale proceeds of the various components of the NMC Commercial Complex.

k. In addition to online submission, the bidder is required to submit the hard copy of the technical documents as specified at clause 7.4. They should also submit copy of the downloaded RFP Document in technical documents duly signed by the authorized signatory as a mark of unconditional acceptance of the terms and conditions of the RFP Document, Development Agreement, Design Proposal etc.

l. For hard copy submission, the technical documents shall be sealed in two separate envelopes indicating the contents there in i.e. Technical and Financial.

These two envelopes should be placed in a single Envelope named as **"Proposal for NMC Mixed Use Commercial Complex on Plot No 5 of OCSP"** indicating the name of the work and name of the agency.

This hard copy of the RFP proposal is required to be submitted within two days after the online submission, in the office of Executive Engineer (Project) NMC. The hard copy should not be submitted before the online submission.

Address for submission of hard copy:

Office of
The Executive Engineer (Project)
Nagpur Municipal Corporation,
Civil Lines, Mahanagar Palika Marg, Nagpur
Phone: 0712-254283
E mail: eeprojectsnmc@gmail.com

m. Clarification

i. Bidders requiring any clarifications to the RFP may notify the NMC in writing or by fax and e-mail to the officer designated in clause above. The envelopes/communications shall clearly bear the following identification/title: "**Queries/Request for Additional Information: RFP for Development of NMC Mixed Use Commercial Complex on Plot No 5 of OCSP**". They should send in their queries before the date specified in the schedule of Bidding Process contained in Notice Inviting Request for Proposal. NMC shall endeavour to respond to the queries within the period specified therein. The responses shall be sent by fax and/or e-mail. NMC shall forward all the queries and its responses thereto, to all purchasers of the RFP without identifying the source of queries.

n. NMC shall endeavour to respond to the questions raised or clarificationssought by the Bidders. However, NMC reserves the right not to respond to anyquestion or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring NMC to respond to any question or to provide any clarification.

o. NMC may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by the NMC shall be deemed to be part of the RFP. Verbal clarifications and information given by NMC or its employees or representatives shall not in any way or manner be binding on NMC.

p. Amendment of RFP and Development agreement

i. At any time prior to the deadline for submission of Application, NMC may, for any reason, whether at its own initiative or in response to clarifications requested by a Bidder, modify the bidding documents by the issuance of revised versions of the bidding documents and/or Addendum / corrigendum. In all cases the revised version of the RFP and the Development agreement would be deemed to completely override the contents of the earlier documents.

ii. Any revisions thus issued shall be available on the website **www.mahatenders.gov.in**

iii. In order to afford the Bidders a reasonable time for taking a revision into account, or for any other reason, NMC may, in its sole discretion, extend the Application Due Date.

q. Bidder will be required to deposit along with the Application a Bid Security as per the Clause 5.2.

r. NMC shall receive Applications pursuant to this RFP in accordance with the terms set forth herein as modified, altered, amended and clarified from time to time by the NMC, and all Applications shall be prepared and submitted in accordance with such terms on or before the date specified in Notice Inviting Request for Proposal for submission of Application (the "**Application Due Date**").

s. The statements and explanations contained in this RFP are intended to provide a better understanding to the Bidders about the subject matter of this RFP and shall not be construed or interpreted as limiting in any way or manner the scope of work and obligations of the Developer set forth in the Development agreement or the NMC"s rights to amend, alter, change, supplement or clarify the scope of work, the development & sales rights to be awarded pursuant to this RFP or the terms thereof or herein contained. Consequently, any omissions, conflicts or contradictions in the Bidding Documents are to be noted, interpreted and applied appropriately to give effect to this intent, and noclaims on that account shall be entertained by the NMC.

t. Subsequent to this process, the Letter of Award (LoA) would be issued to the Successful Bidder by the NMC. Within 7 (seven) days from the date of issue of the LoA, the Successful Bidder shall send an acknowledgement agreeing to comply with the conditions set out therein. NMC shall promptly notify other Bidders that their Financial Proposals have been unsuccessful and their Bid Security shall be returned within 60 days without interest on the signing of the Development Agreement or on issuance of the LoA to the Successful Bidder. The Successful Bidder shall have to enter into a Development Agreement within 30 (thirty) days from date of issue of the LoA.

u. Contents of the RFP

This RFP comprises the disclaimer set forth hereinabove, the contents as listed below, and will additionally include any corrigenda/addenda issued.

Section 1	DISCLAIMER
Section 2	GLOSSARY
Section 3	INTRODUCTION
Section 4	INSTRUCTIONS TO BIDDERS
Section 5	QUALIFICATION APPLICATION
Section 6	FINANCIAL OFFER
Section 7	FRAUD AND CORRUPT PRACTICES
Section 8	PRE-BID MEETING
Section 9	MISCELLANEOUS
	ANNEXURES

5.5 Preparation and Submission of Application

5.5.1 Language

a. The Application and all related correspondence and documents in relation to the Bidding Process shall be in English language.

b. Supporting documents and printed literature furnished by the Bidder with the Application may be in any other language provided that they are accompanied by translations of all the pertinent passages in the English language, duly authenticated and certified by the Bidder.

c. Supporting materials, which are not translated into English, may not be considered.

d. For the purpose of interpretation and evaluation of the Application, the English language translation shall prevail.

5.5.2 Format and signing of Application

a. The Bidder shall provide all the information sought under this RFP. NMC shall evaluate only those Applications that are received in the required formats and complete in all respects. Incomplete and /or conditional Applications shall be liable to rejection.

b. The Bidder shall prepare the Application as specified in this Clause 5.5.

c. The Technical Documents as specified at Clause 7.4 shall be typed or written in indelible ink and signed by the authorized signatory of the Bidder who shall also initial each page in blue ink. In case of printed and published Documents, only the cover shall be initialled. All the alterations, omissions, additions or any other amendments made to the Application shall be initialled by the person(s) signing the Application. The Application shall contain page numbers serially and shall be bound together in hard cover.

d. There shall be no overwriting or corrections while filling the Application. Overwriting or corrections shall make the offer null and void

5.5.3 Submission of Applications

a. The Bidder shall submit the Application as stipulated below

b. The documents as specified at clause 7.4.1 shall be uploaded duly signed by the authorized signatory.

c. The Technical Documents as specified at clause 7.4.2 shall be submitted in hard copy at the office of NMC as specified at clause 5.4 l.

d. The Financial Proposal shall be submitted online in the format provided therein as well as in the hard copy. Any tampering with the online format shall make the proposal disqualified.

e. Envelope containing the Proposal for NMC Mixed Use Commercial Complex shall be submitted at the below mentioned location within two days after the online submission time and shall not be submitted before submission of the online bid:

Office of
The Executive Engineer (Project)
Nagpur Municipal Corporation,
Civil Lines, Mahanagar Palika Marg, Nagpur
Phone: 0712-254283
E mail: eeprojectsnmc@gmail.com

f. If the envelope is not sealed and marked as instructed above, NMC assumes no responsibility for the misplacement or premature opening of the contents of the Application and consequent losses, if any, suffered by the Bidder.

g. Applications submitted by fax, telegram or e-mail shall not be entertained and shall be rejected.

5.5.4 Application Due Date

a. Applications should be submitted as per the schedule mentioned in the Notice Inviting Request for Proposal on the Application Due Date in the manner and form as detailed in this RFP.

b. NMC may, in its sole discretion, extend the Application Due Date by issuing an Addendum uniformly for all Bidders.

5.5.5 Late Applications

Applications received by NMC after the specified time on the Application Due Date shall not be accepted for whatsoever reasons.

5.5.6 Modifications/ substitution/ withdrawal of Applications

a. The Bidder may modify, substitute or withdraw its Application after submission, provided that written notice of the modification, substitution or withdrawal is received by NMC prior to the Application Due Date. No Application shall be modified, substituted or withdrawn by the Bidder on or after the Application Due Date.

b. Any alteration/ modification in the Application or additional information supplied subsequent to the Application Due Date, unless the same has been expressly sought for by NMC, shall be disregarded.

5.6. Evaluation Process

5.6.1 Opening and Evaluation of Applications

a. NMC shall open the Applications as per schedule specified in the Notice Inviting Request for Proposal, at the venue specified in Clause 5.5.3 and in the presence of the Bidders who choose to attend.

b. Applications for which a notice of withdrawal has been submitted in accordance with the provisions set out in this RFP shall not be opened.

c. NMC will subsequently examine and evaluate Applications in accordance with the provisions set out in this RFP.

d. Bidders are advised that pre-qualification of Bidders will be entirely at the discretion of NMC. Bidders will be deemed to have understood and agreed that no explanation or justification on any aspect of the Bidding Process or selection will be given.

e. Any information contained in the Application shall not in any way be construed as binding on NMC, its agents, successors or assigns, but shall be binding against the Bidder if the Project is subsequently awarded to it on the basis of such information.

f. NMC reserves the right not to proceed with the Bidding Process at any time without the notice or liability and to reject any or all Application(s) without assigning any reasons.

g. If any information furnished by the Bidder is found to be incomplete, or contained in formats other than those specified herein, NMC may, in its sole discretion, exclude the relevant portion from computation of Technicaland Financial capacity of the Bidder.

h. In the event that a Bidder claims credit for an Eligible Project, and such claim is determined by NMC as incorrect or erroneous, NMC shall reject such claim and exclude the same from evaluation of Technical Capacity of the Bidder, make a further deduction equivalent to the claim rejected hereunder. Where any information is found to be patently false or amounting to a material misrepresentation, NMC reserves the right to reject the Application in accordance with the provisions of this RFP.

5.7 Tests of responsiveness

5.7.1 Prior to evaluation of Applications as per Section 7, NMC shall determine whether each Application is responsive to the requirements of the RFP. An Application shall be considered responsive only if:

a. It is received as per the guidelines of online bidding as prescribed on the website www.mahatenders.gov.in;

b. It is received as per schedule specified in the Notice Inviting Request for Proposal on the Application Due Date including any extension thereof pursuant to the schedule of the bidding process;

c. The hard copy proposal documents are signed, sealed, bound, and marked as stipulated in this Section 5;

d. It is accompanied by the Power of Attorney and in the case of a Consortium, the Power of Attorney for Lead Member as specified in this RFP.

e. It contains all the information and documents (complete in all respects) as requested in this RFP;

f. It contains information in formats same as those specified in this RFP;

g. It contains certificates from its statutory auditors in the formats specified at Annexure A of the RFP for each Similar Project;

h. Tender Document cost Rs. 25,000/- (Rupees Twenty Five Thousand only) plus applicable GST non-refundable to NMC towards the cost of the Bidding Documents has been made as prescribed on the website www.mahatenders.gov.in;

i. Bid Security of 25, 00,000/-(Rupees Twenty Five Lacs only) has been submitted as prescribed in clause 5.2 of this RFP.

j. It is accompanied by the Consortium Agreement (in case of consortium bidding), specific to the Project, as stipulated in Clause 6.2;

k. It does not contain any condition or qualification in either the Technical Proposal or Financial Bid;

l. It is accompanied with the declaration that the Financial Bid of the Bidder is above the minimum amounts mentioned in Clause 8.1 of this RFP; and

m. It is not non-responsive in terms hereof.

n. NMC reserves the right to reject any Application which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by NMC in respect of such Application.

5.8 Clarifications

a. To facilitate evaluation of Applications, NMC may, at its sole discretion, seek clarifications from any Bidder regarding its Application. Such clarification(s) shall be provided within the time specified by NMC for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.

b. If a Bidder does not provide clarifications sought under Clause 5.8.a above within the prescribed time, its Application shall be liable to be rejected. In case the Application is not rejected, they may proceed to evaluate the Application by construing the particulars requiring clarification to the best of its understanding, and the Bidder shall be barred from subsequently questioning such interpretation of NMC.

5.9 Award of Project

Letter of Award – Upon completion of the Bidding Process and identification of the H1 Bidder, subject to meeting the other qualification requirement laid down in RFP as prescribed in Clause 7, NMC shall announce the selection of the H1 Bidder and will issue the Letter of Award to it on the receipt of necessary internal approvals.

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5.10 General Terms of Bidding Process

a. The interested Bidders are expected to carry out their own surveys, investigations and other detailed examination of the Project and the Project Site before submitting their Application. Nothing contained in the RFP Document Development Agreement and the conceptual Design Proposal shall be binding on the NMC nor confer any right on the Bidders, and the NMC shall have no liability whatsoever in relation to or arising out of any or all contents of the RFP Document ,Development Agreement and the conceptual Design Proposal.

b. Notwithstanding anything to the contrary contained in this RFP, the detailed terms specified in the Development Agreement shall have overriding effect; provided, however, that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Development Agreement

c. The documents including this RFP and all attached documents, provided by the NMC are and shall remain or become the properties of the NMC and are transmitted to the Bidders solely for the purpose of preparation and the submission of its Application in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Application. The provisions of this Clause 5.10 shall also apply *mutatis mutandis* to Application and all other documents submitted by the Bidders, and the NMC will not return to the Bidders any Application, document or any information provided along therewith.

d. This RFP is not transferable.

e. Conditional Bids shall be summarily rejected.

f. Any award of development & sales rights pursuant to this RFP shall be subject to the terms of Bidding Documents.

5.11 Number of Applications and costs thereof

a. No Bidder shall submit more than one Application for the Project. A Bidder applying individually or as a member of a Consortium shall not be entitled to submit another application either individually or as a member ofany Consortium, as the case may be.

b. The Bidders shall be responsible for all of the costs associated with the preparation of their Applications and their participation in the Bidding Process. The NMC will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

5.12 Project site visit and verification of information

Bidders are encouraged to submit their respective Applications after visiting the Project site and ascertaining for themselves the site conditions, location, surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, applicable laws and regulations, and any other matter considered relevant by them.

5.13 Acknowledgement by Bidder

5.13.1 It shall be deemed that by submitting the Application, the Bidder has:

i. made a complete and careful examination of all volumes of the RFP;

ii. received all relevant information requested from the NMC;

iii. accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the NMC relating to any of the matters referred to above; and

iv. Agreed to be bound by the undertakings provided by it under and in terms hereof.

5.13.2 The NMC shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to the RFP, Development agreement or the Bidding Process, including any error or mistake therein or in any information or data given by the NMC.

5.14 Right to accept or reject any or all Applications

a. Notwithstanding anything contained in this RFP, the NMC reserves the right to accept or reject any Application and to annul the Bidding Process and reject all Applications, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons thereof. In the event that the NMC rejects or annuls all the Applications, it may, in its discretion, invite all Eligible Bidders to submit fresh Applications hereunder.

b. The NMC reserves the right not to proceed with the Bidding Process at any time, without notice or liability, and to reject any Application without assigning any reasons.

c. The NMC reserves the right to reject any Application, at any time, if:

i. at any time, a material misrepresentation is made or uncovered, or

ii. the Bidder does not provide, within the time specified by the NMC, the supplemental information sought by the NMC for evaluation of the Application.

d. If the Bidder is a Consortium, then the entire Consortium may be disqualified/ rejected. If such disqualification/ rejection occurs after the Financial Offer have been opened and the H1 Bidder gets disqualified/ rejected, then the NMC reserves the right to

i. Invite the remaining Bidders to match the Financial Offer of the H1 Bidder / submit their Applications in accordance with the RFP; or

ii. Take any such measure as may be deemed fit in the sole discretion of the NMC, including inviting fresh Applications or annulment of the Bidding Process, without any liability.

e. In case it is found during the evaluation or at any time before execution of the Development Agreement or after the execution of the Development Agreement, that one or more of the pre-qualification conditions have not been met by the Bidder, or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Developer either by issue of the LOA or entering into of the Development Agreement, and if the Bidder/SPV hasalready been issued the LOA or has entered into the Development Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by acommunication in writing by the NMC to the Bidder, without the NMC being liable in any manner whatsoever to the Bidder and without prejudice to any other right or remedy which the NMC may have under this RFP, the Bidding Documents, the Development Agreement or under applicable law.

f. NMC reserves the right to verify all statements, information and documents submitted by the Bidder in response to the RFP. Any such verification or lack of such verification by NMC shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of NMC there under.

5.15 Application Validity Period

5.15.1 The Application shall be valid for a period of not less than 180 (one hundred and eighty) days from the Application Due Date ("**Application Validity Period**"). The NMC at its discretion and if deemed fit can extend the validity period and the Application Validity Period shall be extended by the respective Bidders as per directions of the NMC.

5.16 Confidentiality

Information relating to the examination, clarification, evaluation, and recommendation for the short-listed Technically Qualified Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising NMC in relation to or matters arising out of, or concerning the Bidding Process. NMC shall treat all information, submitted as part of Application, in confidence and shall require all those who have access to such material to treat the same in confidence. NMC may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or NMC or as may be required by law or in connection with any legal process.

5.17 Proprietary data

All documents and other information supplied by NMC or submitted by a Bidder to NMC shall remain or become the property of NMC. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Application. NMC will not return any Application or any information provided along therewith.

5.18 Correspondence with the Bidder

5.18.1 Save and except as provided in this RFP, NMC shall not entertain any correspondence with any Bidder in relation to the acceptance or rejection of any Application.

5.19. The following conditions shall be adhered to while submitting an Application:

a. Bidders should attach clearly marked and referenced continuation sheets in the event that the space provided in the prescribed forms in the Annexes is insufficient. Alternatively, Bidders may format the prescribed forms making due provision for incorporation of the requested information.

b. Information supplied by a Bidder (or other constituent Member if the Bidder is a Consortium) must apply to the Bidder, Member or Associate named in the

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Application and not, unless specifically requested, to other associated companies or firms.

c. In responding to the Application submissions, Bidders should demonstrate their capabilities in accordance with Clause 7.1.1

5.20. Notwithstanding anything to the contrary contained herein, in the event that the Application Due Date falls within three months of the closing of the latest financial year of a Bidder, it shall ignore such financial year for the purposes of its Application and furnish all its information and certification with reference to the 3 (three) years, preceding its latest financial year. For the avoidance of doubt, financial year shall, for the purposes of an Application hereunder, mean the accounting year followed by the Bidder in the course of its normal business.

6. OTHER INSTRUCTIONS TO BIDDERS

6.1 Constitution of Bidders

6.1.1 For determining the eligibility of Bidders (the "**Eligible Bidders**") hereunder, the following shall apply:

a. The Bidder for qualification may be a single entity or a group of entities (the "**Consortium**"), coming together to implement the Project. However, no Bidder applying individually or as a member of a Consortium, as the case may be, can be member of another Bidder. A Bidder violating the above condition shall be liable for disqualification and the NMC shall be entitled to forfeit and appropriate the Bid Security. The term Bidder used herein would apply to both a single entity and a Consortium.

b. A prospective bidder can be a Company under Companies Act, 1956/2013 or Partnership Firm formed under the Partnership Act 1932 or an LLP under the LLP Act 2008 or a Proprietorship firm registered under the relevant Act in India or a government-owned entity or any combination of them with a formal intent to enter into an agreement or under an existing agreement to form a Consortium. A Consortium shall be eligible for consideration subject to the conditions set out in Clause 6.2.2 below

c. A Bidder shall not have a conflict of interest (the "**Conflict of Interest**") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification of the Bidder, the NMC shall be entitled to forfeit and appropriate the Bid Security, as the case may be, as mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the NMC including consideration of such Bidder"s proposal (the "**Damage**") without prejudice to any other right and remedy that may be available to the NMC under the Bidding Documents and/or the Development agreement or otherwise. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:

i. The Bidder, its Member or Associate (or any constituent thereof) and any other Bidder, its Member or any Associate thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder, its Member or an Associate thereof (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the subscribed and paid up share capital of such Bidder, Member or Associate, as the case may be) in the other Bidder, its Member or Associate, is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply , indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a

person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or

ii. a constituent of such Bidder is also a constituent of another Bidder; or

iii. such Bidder, its Member or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, its Member or Associate, or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder, its Member or any Associate thereof; or

iv. such Bidder has the same legal representative for purposes of this Application as any other Bidder; or

v. such Bidder, or any Associate thereof, has a relationship with another Bidder, or any Associate thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other"s" information about, or to influence the Application of either or each other; or

vi. such Bidder or any Associate thereof has participated as a consultant to the NMC in the preparation of any documents, design or technical specifications of the Project.

vii. In computing the Technical Capacity and Financial Capacity of the Bidder/ Consortium Members under Section 7, the Technical Capacity and Financial Capacity of their respective Associates, if any shall not be eligible.
The project experience of only the bidder in its own name shall be considered for evaluating Technical and Financial capacity

d. A Bidder who suffers from a Conflict of Interest, such Bidder/Consortium shall be disqualified/debarred from the Bidding Process and its Bid Security shall be forfeited.

e. A Bidder shall be liable for disqualification if any legal, financial or technical adviser of the NMC in relation to the Project is engaged by the Bidder, its Member or any Associate thereof, as the case may be, in any manner for matters related to or incidental to the Project. For the avoidance of doubt, this disqualification shall not apply where such adviser was engaged by the Bidder, its Member or Associate in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of this RFP. Nor will this disqualification apply where such adviser is engaged after a period of 1 (one) month from the date of announcement of Highest Ranked Bidder.

Explanation:

In case a Bidder is a Consortium, then the term Bidder as used in this Clause, shall include each Member of such Consortium.

6.2. Regarding Consortium

6.2.1 The Bidder should submit a Power of Attorney as per the format at Appendix A4, authorizing the signatory of the Application to commit the Bidder. In case of a Consortium, the Members should submit a Power of Attorney in favor of the Lead Member as per format at Appendix A5.

6.2.2. The selected Bidder shall have the option to form a Special Purpose Vehicle (the "**SPV**"), incorporated under the Indian Companies Act, 2013/LLP Act 2008, to execute the Development Agreement and implement the Project.

In case the Bidder is a Consortium, it shall comply with the following additional requirements:

a. Number of members in a consortium shall not exceed 2 (two); i.e. Lead Member plus one.

b. Subject to the provisions of sub-clause (a) above, the Qualification Application shall contain the information required for each member of the Consortium;

c. Members of the Consortium shall nominate one member as the lead member (the "**Lead Member**"), who shall subscribe at least 51% (fifty one per cent) or more of the Equity of the SPV for the Development and Sales Period and/or till 100% realization of NMC Revenue Share. The nomination(s) shall be supported by a Power of Attorney, as per the format in Appendix A5, signed by all the other members of the Consortium;

d. Non Lead Member of the Consortium shall subscribe at least 26% (twenty six per cent) or more of the Equity of the SPV for the

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Development and Sales Period and/or till 100% realization of NMC Revenue Share.

e. The Application should include a brief description of the roles and responsibilities of individual members, particularly with reference to financial, technical and O&M obligations;

f. An individual Bidder cannot at the same time be member of a Consortium submitting Application. Further, a member of a particular Bidder Consortium cannot be member of any other Bidder Consortium submitting Application;

g. The members of a Consortium may form a SPV to execute the Project, if awarded to the Consortium;

h. Members of the Consortium shall enter into a binding consortium agreement, substantially in the form specified at Appendix A6 (the "**Consortium Agreement**"), for the purpose of making the Application.

i. The Consortium Agreement, to be submitted along with the Application, shall, *inter alia*:

i. Convey the intent to form an SPV with shareholding/ ownership equity commitment(s) in accordance with this RFP, which would enter into the Development Agreement and subsequently perform all the obligations of the Developer in terms of the Development Agreement, in case the Project is awarded to the Consortium;

ii. Clearly outline the proposed roles and responsibilities, if any, of each member;

iii. Commit the minimum equity stake to be held by each member;

iv. Commit that the Lead Member, whose experience will be evaluated for the purposes of this RFP, shall subscribeto minimum 51% (fifty one per cent) or more of the Equity of the SPV for the Development and Sales Periodand/or till 100% realization of NMC Revenue Share.

v. Commit that other member of the Consortium (i.e. except the Lead Member), whose experience will be evaluated for the purposes of this RFP, shall subscribe tominimum 26% (twenty six per cent) or more of Equity of

the SPV for the Development and Sales Period and/or till 100% realization of NMC Revenue Share

vi. Include a statement to the effect that all members of the Consortium shall be liable jointly and severally for all obligations of the Developer in relation to the Project until the expiry of the Construction period of 36 (thirty six) months.

vii. Except as provided under this RFP and the Bidding Documents, there shall not be any amendment to the Consortium Agreement without the prior written consent of the NMC.

6.2.3 Change in composition of the Consortium

Under no circumstances the replacement and/or change in composition of the Consortium shall be allowed.

6.3. Regarding Blacklisting

a. Any entity which has been barred by the Central/ State Government, or any entity controlled by it, from participating in any project (PPP/BOT or otherwise), and the bar subsists as on the date of Application, would not be eligible to submit an Application, either individually or as member of a Consortium.

b. A Bidder including any Consortium Member or Associate should, in the last 3 (three) years, have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial pronouncement or arbitration award against the Bidder, Consortium Member or Associate, as the case may be, nor has been expelled from any project or contract by any public entity nor have had any contract terminated by any public entity for breach by such Bidder, Consortium Member or Associate.

c. The bidder needs to clearly indicate in its offer any on-going actions, disputes, arbitration proceedings, blacklisting procedure with any State or Central government department. The details need to be provided in the following format:

Case No.	Name of Case	Department	Name of Govt. Officer handling the case with contact no.	Current Status	Attach details such copy of letter, notice etc.

In case any false information is provided by the bidder and NMC investigates the facts, in such a scenario NMC reserves the right to disqualify the bidder and not open its financial proposal without incurring any financial and legal liabilities.

6.4. The H1 Bidder shall be required to satisfy the following conditions that may be prescribed under the Letter of Award:

a. Sign and return a duplicate copy of Letter of Award to the NMC within 7 days

b. Submit the Performance Security within 30 days of Letter of Award,

c. Execute the Development Agreement with the NMC within 15 days of submission of Performance Security, and

d. Disburse the Upfront Premium to NMC in following manner:

   i. Rs 5 crores within 30 days of Effective Date.

   ii. Balance Rs 6.50 crores by way of 3 equal post-dated cheques within 09 months from Effective Date.

e. Any other condition as may be prescribed under the Letter of Award.

7. QUALIFICATION CRITERIA

The Applicant"s competence and capability is proposed to be established by the following parameters:

a. Technical Capacity; and
b. Financial Capacity

7.1 Evaluation parameters:

7.1.1 The Bidder for Qualification has to demonstrate Technical Capacity and Financial Capacity

a) **Technical Capacity**: For demonstrating experience in executing similar projects (the "**Technical Capacity**"), the Bidder should have met the following qualification requirements:

The Bidders should have undertaken the development/construction and salesof the following "**Similar Projects**" as mentioned below:

i. At-least **One similar project** having constructed area of **One Lac Seventy-Eight Thousand Four Hundred square feet** (total built up area of RCC Structure/ Combination of RCC-Steel Structure at a single location (single premises) along-with all with all support facilities and infrastructure facilities) in the last 07 financial years in India.

OR

ii. At-least **Two similar projects** having constructed area of **One Lac Eleven Thousand Five Hundred square feet** (total built up area of RCC Structure/ Combination of RCC-Steel Structure at two independent locations along-with all with all support facilities and infrastructure facilities) in the last 07 financial years in India.

OR

iii. At-least **Three similar projects** having constructed area of **Eighty-Nine Thousand Two Hundred square feet** (total built up area of RCC Structure/ Combination of RCC-Steel Structure at three independent locations along-with all with all support facilities and infrastructure facilities) in the last 07 financial years in India.

Capital cost of the Similar Projects above should be more than Rs. 128 Crores for one similar project, more than 80 Crores each for two similar projects and more than Rs. 64 Crores each for three similar projects; and

b) **Financial Capacity**:

i. Average Turnover of the Bidder for last 3 financial years ending 31.03.2022: INR 40 Crores (Rupees Forty Crores).

ii. The Bidder shall have a minimum Net-worth of INR 5.00 Crores (Rupees Five Crores) as on 31.3.2022 as stipulated in theClause 7.2.

iii. The Bidder should have un-utilized Credit Lines/Financial Facility with its Bankers or liquid funds to the tune of at-least Rs. 15 Crores (Rupees Fifteen Crores) as on 31.3.2022.

7.1.1 c) In case of a Consortium, the combined technical capacity and financial capacity of those Members shall be considered, who have and shall continue to have Equity share of at least 26% (twenty-six per cent) in the SPV.
If technical experience in case of consortium is shown jointly then the number of projects of each partner needs to be shown, evaluation shall be done on the number of project"s meeting the criteria. Clubbing of constructed area shall not be allowed.

7.1.2 For the purpose of qualification, Similar Projects shall mean:

a. Any Real Estate Development project such as those of Government/Institutional buildings, Commercial/Shopping Complex, Mixed Use Complex, Service Apartments, Residential Buildings, Hotel buildings, Convention Centres, Auditoriums, Hospital buildings with requisite parking.

7.1.3 The Similar Projects shall meet the following criteria:

a. The Sales of the various components of the real estate development project should have been successfully completed.

b. In case of purely construction contracts relevant documents from the client"s such as completion certificates, certificate from statutory auditor regarding revenue receipts received from the said contract with copy of relevant bank statement shall be furnished.

c. In case of purely construction contracts wherein Sales is not within the scope of work of the contractors, relevant experience for Sales of the similar projects shall be submitted separately

d. COD of the project should be within a period of the last 07 financial years from the Application Due Date.

e. Constructed Area shall be as defined in the latest I.S. Codes.

f. In case of on-going projects, 90% completed projects (in terms of project cost) shall be accepted provided the same is certified by the PMC of the client and by the Statutory Auditor of the bidder indicating the details of the revenue receipts from the project.However, such 90% project cost shallbe more than the capital cost of the qualifying projects as mentioned above.

g. For the purpose of qualifying, prospective bidders need to fulfil the requirement of similar projects in terms of constructed area and capital cost and the bidders shall be at liberty to show Government or Private projects e.g., projects can be purely Government or private sector projects or a combination of Government and private sector projects. But in any case, clubbing of constructed area between projects shall not be allowed.

7.1.4 The Developer shall provide details of its Operation & Maintenance (O&M) expertise.

7.2 Financial information for the purpose of evaluation

7.2.1 For the purpose of this RFP document, Net Worth (the "**Net Worth**") is defined as:

Net Worth = (Subscribed and Paid-up equity capital + Reserves) – (Revaluation reserves + miscellaneous expenditure not written-off + reserves not available for distribution to equity shareholder)

7.2.2 For the purpose of measuring Financial Capacity:

a. In case of a Single Entity Bidder, the Net Worth and Average Turnover of the past 3 (three) financial years will be considered. The Net Worth, Turnover and Unutilized Credit Limits information should be provided as per format in Appendix A3.

b. in case of a Consortium, Combined Net Worth, Turnover and Un-utilized Credit Limits as per the Appendix A3, where Combined Net Worth, Turnover and Un-utilized Credit Limits (**"Combined Net Worth, Turnover and Un- utilized Credit Limits"**) is calculated by weighting the Net Worth and Turnoverof the past 3 (three) financial years of individual Member by their respective proposed Equity stake (%) in the Consortium. The Net Worth, Turnover and Un-utilized Credit Limits of only those consortium members would be considered which satisfy Clause 7.1.1(b).

7.3 Technical Concept Presentation:

7.3.1. Subject to the provision of Clause 7.1.1, all technically qualified bidders shall prepare and submit, as specified in this RFP, a Development and Implementation Plan for the proposed project taking into consideration the following parameters:

a. Applicable Development Control Regulations/Building Byelaws
b. Applicable Zoning &Master plan
c. Maximum Development Potential Available
d. All Statutory Regulation, Laws as applicable to development of the facility
e. Existing Market conditions and any other factor deemed important by the bidder

The technically qualified bidder shall capture the following in its presentation:

a. Its understanding and interpretation of the Project
b. Financial planning and Revenue Generation Model for implementation of the Project. Editable Financial Model for the Project to be shared by the bidder/s during the presentation
c. Proposed Revenue Sharing model in case of additional development along with its editable financial model.
d. Highlight its experience in executing similar projects for other clients.
e. Indicate proposed methodology and tentative planning for implementation of the Project in terms of the Construction Plan and its Execution.
f. Indicate the plan for Facility Management and Maintenance.
g. Indicate the material specifications for development of the Project.
h. Indicate the proposed internal planning of the Mixed-Use Commercial Complex.
i. Indicate its Marketing & Sales Plan for the Project considering the existing market conditions.

7.3.2 Each of the technically qualified bidders shall be called upon to make a Technical Concept& Implementation Plan Presentation to the Authority on the date and time as per schedule mentioned elsewhere in this document. The bidder shall highlight how it plans to conceptualize, develop and implement the project.

7.4 Details of Experience to be submitted:

7.4.1 Documents to be uploaded online are as follows:

1. Receipt regarding payment of RFP document cost shall be scanned and submitted.
2. Receipt regarding submission of Bid Security as per clause 5.2 shall be scanned and submitted.
3. Forms regarding technical experience in the prescribed format at Appendix A1, Appendix A2 and Appendix A3 along with supporting documents;
4. Performance certificate(s) from the concerned client(s) [along with a certificate from the statutory auditor] stating the area of development/construction, time taken to complete the project, Cost of the project, Facilities (as mentioned earlier) provided in the development, Organisational set up, copies of sale deeds etc. The performance certificates shall be signed by an officer not below the rank of Executive Engineer in case of Government projects and by a Director in case of private projects.
5. Certificate(s) from the concerned client(s) evidencing the COD of the project. The certificates shall be signed by an officer not below the rank of Executive Engineer in case of Government projects and by a Director in case of private projects.
6. Certificate(s) from the concerned client(s) evidencing the sale of the various components of the project. The certificates shall be signed by an officer not below the rank of Executive Engineer in case of Government projects and by a Director in case of private projects.
7. In case of purely construction contracts relevant documents from the client"s such as completion certificates, certificate from statutory auditor regarding revenue receipts received from the said contract with copy of relevant bank statement shall be furnished.
8. In case of purely construction contracts, relevant certificates from clients evidencing Sales experience for the quantum as specified for the Similar Projects along-with relevant extracts of the Sale Agreement/Deed and certified by the Statutory Auditor.
9. In case of 90% completed projects, certificates from the project PMC and the Bidders" Statutory Auditor.
10. Copies/copies of relevant pages of the approved DPR/Bankable Report for the concerned projects.
11. Copy of the Consortium Agreement, in case of a Consortium as per the format at Appendix A6;
12. Power of Attorney for signing the Application as per the format at Appendix A4;
13. If applicable, the Power of Attorney for Lead Member of Consortium as per the form at Appendix A5;

14. Statement of Legal Capacity as per the format at Appendix A7.
15. Certificate(s) from its statutory auditors specifying the Net Worth, Turnover and Un-utilized Credit Limits/Financial Facility of the Bidder, as at the close ofthe preceding financial year (before the Application Due Date), and alsospecifying that the methodology adopted for calculating such Turnover, Net Worth and Credit Lines conforms to the provisions of Clause 7.1.1(b).
16. Certificate from the Bidder"s Bankers (including Consortium member) regarding the un-utilized credit limits or liquid funds.
17. Brief Development cum Implementation Plan for the project.
18. Financial Bid as per the online format duly filled without tampering with the format.

7.4.2 Technical Documents to be submitted in hard copy at NMC office are as Follows:

1. Duly signed copy of the downloaded RFP along-with all the Volumes.
2. Copy of Memorandum and Articles of Association, if the Bidder is a body corporate, and if a partnership then a copy of its registered partnership deed;
3. Audited Annual Reports of the Bidder (of each Member in case of a Consortium) for the last 3 (three) financial years, preceding the year in which the Application is made.
4. Company/Firm Profilesof the Bidder (of each Member in case of a Consortium).
5. List of Technical Manpowerof the Bidder (of each Member in case of a Consortium) with copies of their CVs and educational certificates.
6. List of machinery and equipment"sof the Bidder (of each Member in case of a Consortium).
7. Actual Photographs of similar projects undertaken by the bidder previously(of each Member in case of a Consortium).
8. Details of the O&M agency regarding projects, manpower, equipment"s etc.
9. Copy of the Concept cum Implementation Plan for the project along with the Presentation.
10. Hard copy of the duly filled in Financial Bid.

All the above Technical Documents shall be bound together in hard cover and the pages shall be numbered serially and the financial bid shall be in a separate envelope. The two separate envelopes shall be put in one single larger envelope for submission.

8. FINANCIAL OFFER

8.1 Financial Offer

8.1.1 Financial Offer shall comprise of:

a. Lump-sum Financial offer to be shared with NMC shall be subject to a minimum of Rs 111.50 crores (Rupees One Hundred and Eleven Crores and Fifty Lacs only) (including Upfront Premium) from Sale Proceeds from the various components of the Project.
Bidders have to quote over and above this figure of Rs 111.50 crores. (Bidding Parameter).

b. Upfront Land Premium has been fixed at Rs. 11.50 crores which is to be paid to NMC in instalments as mentioned below:

   i. Rs 5 crores within 30 days of Effective Date.

   ii. Balance Rs 6.50 crores by way of 3 equal post-dated cheques within 09 months from Effective Date.

c. The bidder quoting the Highest Lump-sum Financial Offer to be shared with NMC shall be the H1 bidder.

d. Payment of the Financial Offer shall be done proportionate to the Sales Proceeds received after adjusting for the Upfront Premium of Rs. 11.50 crores. The detailed payment schedule is provided in the Development Agreement.

e. In case the payment of balance amount (amount as quoted less Rs.11.50 crores upfront) to NMC exceeds 48 (forty-eight months) from the date of Letter of Award, then the balance amount payable to NMC shall be increased by a percentage equivalent the increase in Ready Reckoner Rates from previous year for the Project Site area for the upcoming respective year.

f. 100% of the Lump-sum Financial Offer amount payable to NMC shall be payable by the Developer on or prior to the completion of 80% of the Sale Process from the Project or 48 months from Effective Date, whichever is earlier.

g. The payment of NMC Sales Revenue share shall be through the EscrowAccount mechanism. The payment schedule of the NMC Sales Revenue shall be as per the RFP and it shall be routed to NMC through the exclusive accountopened by the developer for this project to receive the payment from buyer. All the payments from buyer shall only be deposited in this account only. During the Technical Presentation, the Developer shall submit its detailed Financial Plan including the Revenue Model and the Financial Plan submitted during the Technical Presentation shall be evaluated by the Committee and the same shall be accepted.

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h. The Developer shall be at a liberty to decide the selling price for the various components of the Project depending on the prevailing market sentiments which shall be informed to the NMC Strategic Committee before finalisation offinal terms with the prospective buyer. **However, the Selling Rate shall at no times be equal to or lower than the prevailing Ready Reckoner Rates for the zone.**

8.2 Committees for Project Implementation

8.2.1 Strategic Committee:

The strategic and financial decisions with regard to the NMC Mixed Use Commercial Complex Facility shall be approved by a Strategic Committee comprising of Hon"ble. Commissioner, Chief Engineer, Deputy Municipal Commissioner (In charge of Estate Dept.), Executive Engineer - Project and representative of the Developer ("**Strategic Committee**").

8.2.2 Empowered Committee:

The general day to day operating decisions with regard to the NMC Mixed Use Commercial Complex Facility shall be approved by an Empowered Committee comprising of Addl. Commissioner, Deputy Municipal Commissioner (In charge of Estate Dept.), Executive Engineer - Project and representative of the Developer ("**Empowered Committee**").

8.3 Evaluation of the Financial Offer

8.3.1 The evaluation of Financial Offer shall be done on the basis of the Maximum Lump-sum Financial Offer to be shared with NMC(as indicated above) and the Bidder quoting the Maximum Lump-sum Financial Offer over and above the minimum shall be the H1 bidder subject to meeting the other technical qualification requirements as laid out in this RFP.

8.3.2 Unreasonably high or low financial offers are liable to be rejected by NMC, without incurring any obligation or liability. The Hon'ble Municipal Commissioner, NMC shall be the final decision-making authority in this regard.

8.3.3 The Financial Offer should be uploaded in the format as available on the website **www.mahatenders.gov.in.**

9. Fraudulent and Corrupt Practices

9.1.1 The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, NMC may reject an Application without being liable in any manner whatsoever to the Bidder if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process.

9.1.2 Without prejudice to the rights of NMC under Clause 9.1.1 hereinabove, if a Bidder is found by NMC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, such Bidder shall not be eligible to participate in any tender or RFP issued by NMC during a period of 2 (two) years from the date such Bidder is found by NMC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

9.1.3 For the purposes of this Section 9, the following terms shall have the meaning hereinafter respectively assigned to them:

a. "**corrupt practice**" means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to, or employing, or engaging in any manner whatsoever, directly or indirectly, any official of NMC who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Development agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of NMC, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process);
b. "**Fraudulent practice**" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;
c. "**Coercive practice**" means impairing or harming or threatening to impair or harm, directly or indirectly, any person or property to influence any person"s participation or action in the Bidding Process;
d. "**Undesirable practice**" means (i) establishing contact with any person connected with or employed or engaged by the NMC with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and
e. "**Restrictive practice**" means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

10. Pre-Bid Meeting

10.1.1 Pre-Bid Meeting(s) of the interested parties shall be convened at the designated date, time and place. A maximum of 2 (two) representatives of each Bidder shall be allowed to participate on production of NMC letter from the Bidder.
Owing to the prevailing Covid-19 condition, the Pre-Bid may simultaneously be conducted through Video Conferencing and only those representatives who prefer to attend in person can attend.
The queries of the prospective bidders should be submitted in written form as per the schedule mentioned in the Notice Inviting Request for Proposal. Mere discussion on a point during the Pre-Bid meeting (physical or virtual) shall not be construed as submission of queries and shall not be considered for clarification.

10.1.2 During the course of Pre-Bid Meeting, the Bidders will be free to seek clarifications and make suggestions for consideration of NMC. NMC shall endeavor to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Bidding Process.

11. Miscellaneous

11.1.1 The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Nagpur shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.

11.1.2 NMC, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;

a. Suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
b. Consult with any Bidder in order to receive clarification or further information;
c. Pre-qualify or not to pre-qualify any Bidder and/ or to consult with any Bidder in order to receive clarification or further information;
d. Retain any information and/ or evidence submitted to NMC by, on behalf of, and/ or in relation to any Bidder; and/ or
e. Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.

11.1.3 It shall be deemed that by submitting the Application, the Bidder agrees and releases NMC, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder and the Bidding Documents, pursuant hereto, and/ or in connection with the Bidding Process, to the fullest extent permitted by applicable law, and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent,whether present or in future.

11.1.4 The H1 Bidder shall be required to submit the applications and obtain permission, approval, consent, license etc., as may be required for execution of the Project, from the respective competent authorities such as NMC"s planning department, health department, heritage committee, garden department, environment department and / or any other statutory body before commencement of the work at its cost. Any changes, additions, alterations, deletion mandatorily required to be done any of the various NMC granting approvals, consents, permissions etc. shall not entitle the H1 Bidder / Developer to seek change in the Financial Offer and subject to provisions of theDevelopment Agreement, the Financial Offer submitted will always remain final and binding.

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ANNEXURES

Annexure A – Qualification Application

Appendix A1

Details of Bidder:

1. (a) Name:

   (b) Country of incorporation:

   (c) Address of the corporate headquarters and its branch office(s), if any, in India:

   (d) Date of incorporation and/ or commencement of business:

2. Brief description of the Organization including details of its main lines of business and proposed role and responsibilities in this Project:

3. Details of individual(s) who will serve as the point of contact/ communication for NMC:

(a) Name:

(b) Designation:

(c) Company:

(d) Address:

(e) Telephone Number:

(f) E-Mail Address:

(g) Fax Number:

4. Particulars of the Authorised Signatory of the Bidder:

(a) Name:

(b) Designation:

(c) Address:

(d) Phone Number:

(e) Fax Number:

5. In case of a Consortium:

(a) The information above (1-4) should be provided for all the Members of the Consortium.

(b) Information regarding the role of each Member should be provided as per table below:

Sl. No.	Name of Member	Role (Refer Section 6)	Percentage of Equity in the Consortium (Refer Section 6)
1.			
2.			

(c) The following information shall also be provided for each Member of the Consortium:

Name of Bidder / member of Consortium:

No.	Criteria	Remarks
1.	Has the Bidder/ constituent of the Consortium been barred by the [Central/ State] Government, or any entity controlled by it, from participating in any project (BOT or otherwise)?	
2.	If the answer to 1 is yes, does the bar subsist as on the date of Application?	
3.	Has the Bidder/ constituent of the Consortium paid liquidated damages of more than 5% (five per cent) of the contract value in a contract due to delay or has been penalized due to any other reason in relation to execution ofa contract, in the last three years?	

6. A statement as per Clause 6.3 by the Bidder and each of the Members of its Consortium (where applicable) or any of their Associates disclosing material non-performance or contractual non-compliance in past projects, contractual disputes and litigation/ arbitration in the recent past needs to be attached

Appendix-A-2

Experience in Similar type of Projects (Refer Clause 7.1.1 (a))

Bidder Type Single entity/ Consortium Member	
Name(s) of other members of consortium, in case the said project was executed as a consortium	
Name of the Project	
Area of Development/Construction	
Scope of the work for which the Bidder was responsible (min. 3 activities)	
Time Period	
Project Cost	
Period of Maintenance	
Master Plan & Brief note on the Project	
Photographs showing different activities included in the project	
Relevant Extracts of the Project DPR/Bankable Report	

Instruction:

1. Bidders are expected to provide information in respect of each Similar Project on separate sheets. The projects cited must comply with the eligibility criteria specified in Clause 7.1.1 (a) of the RFP.

2. Supporting documents with completion certificate should be attached.

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Appendix-A-3

Financial Capacity of the Bidder :(Refer Clauses 7.1.1(b))

Turnover:

Bidder Type	Proposed Equity Share for the NMC Mixed Use Commercial Complex Project (percentage)	Turnover (INR Crore)			Average Turnover (INR Crore)	Average Turnover x Equity Share (INR Crore)
		Year 1	Year 2	Year 3		
Single entity Bidder						
Lead Member and Consortium Member 1						
Combined Turnover (INR Crore)						

Net-worth:

Bidder Type	Proposed Equity Share for the NMC Mixed Use Commercial Complex Project (percentage)	Net Worth (INR Crore)	Net Worth x Equity Share (INR Crore)
		As on 31.3.2022	
Single entity Bidder			
Lead Member and Consortium Member 1			

Un-utilized Credit Limits or Liquid Funds/Financial Facility:

Bidder Type	Proposed Equity Share for the NMC Mixed Use Commercial Complex Project (percentage)	Un-utilized Credit Limits or Liquid Funds/Financial Line Facility as on Application Due Date: (INR Crore)	Unutilized Credit Limit/ Financial Line Facility or Liquid Funds x Equity Share (INR Crore)
Single entity Bidder			
Lead Member and Consortium Member 1			
Total			

Name and address of Bidder's Banker:

Instructions:

1. Bidder consisting of a single entity should fill in details as per the row titled Single entity Bidder and ignore the rows titled Consortium Members. In case of a Consortium, row titled Single entity Bidder may be ignored.
2. For Equity Share, refer Clause 7.1.1(c)
3. For Net Worth, refer Clause 7.2.1
4. The Bidder/ its constituent Consortium Members shall submit copies of the balance sheets, financial statements and Annual Reports for 3 (three) years preceding the Application Due Date. The financial statements shall:
   (a) Reflect the financial situation of the Bidder or Consortium Members and its/ their Associates where the Bidder is relying on its Associate"s financials;
   (b) Be audited by a statutory auditor;
   (c) Be complete, including all notes to the financial statements; and

(d) Correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

5. The Bidder shall provide an Auditor"s Certificate specifying the net worth of the Bidder and also specifying the methodology adopted for calculating such net worth in accordance with the Clause 7.2.1.

6. The Bidder should provide details of its own Financial Capacity or of an Associate specified in Clause 6.1

7. In the case of a Consortium, a copy of the Consortium Agreement shall be submitted in accordance with Clause 6.2.

8. The Bidder shall also provide the name and address of the Bankers to the Bidder.

Appendix A4

Power of Attorney for signing of Application

(To be executed on Stamp paper of Rs. 100 (Rupees Hundred) or of appropriate value)

Know all men by these presents, We, ... (name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorise Mr. / Ms (Name), son/daughter/wife of ..... and presently residing at....., who is presently employed with us/ the Lead Member of our Consortium and holding the position of ....., as our true and lawful attorney (hereinafter referred to as the "**Attorney**") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our bid for the Project – Development of NMC Mixed Use Commercial Complex, being developed by Nagpur Municipal Corporation ("**NMC**") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders" and other conferences and providing information / responses to NMC, representing us in all matters before NMC, signing and execution of all contracts including the Development agreement and undertakings consequent to acceptance of our bid, and generally dealing with NMC in all matters in connection with or relating to or arising out of our bid for the said Project and/or upon award thereof to us and/or till the entering into of the Development agreement with NMC.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, ..., THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS ..... DAY OF....., 2022

For.....

(Signature, name, designation and address)
Witnesses:

1.

2.

Accepted Notarised

(Signature, name, designation and address of the Attorney)

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*

- *Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*

- *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Appostille certificate.*

Appendix A5

Power of Attorney for Lead Member of Consortium

(To be executed on Stamp paper of Rs. 100 (Rupees Hundred) or of appropriate value)

Whereas the Nagpur Municipal Corporation, (the "NMC") has invited bids for the project "Development of NMC Mixed Use Commercial Complex (the "Project").

Whereas, ……., ……..and.....(collectively the "Consortium") being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and NMC to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium"s bid for the Project and its execution.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

We, ... having our registered office at ....., M/s. ....., having our registered office at ....., and M/s. ……., having our registered office at ....., (hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorise M/s..... , having its registered office at ……., being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney") and hereby irrevocably authorise the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the Concession/ Contract, during the execution of the Project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, accept theLetter of Award, participate in bidders" and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with NMC, and/ or any

other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium"s bid for the Project and/ or upon award thereof till the Development Agreement is entered into with NMC.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS ..... DAY OF ....., 2022.

For .....

(Signature, Name & Title)

For .....

(Signature, Name & Title)

For .....

(Signature, Name & Title)

(Executants)

(To be executed by all the Members of the Consortium)

Witnesses:

1.

2.

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*

- *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassyif it carries a conforming Appostille certificate.*

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Appendix A6

Consortium Agreement

(To be executed on Stamp paper of Rs. 100 (Rupees Hundred) or of appropriate value)

THIS CONSORTIUM AGREEMENT is entered into on this the ..... day of ....., 2022.

AMONGST

1. [..... Limited, a company incorporated under the Companies Act, 1956]*and having its registered office at.....(Hereinafter referred to as the "First Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

* Bidder to suitably change, if required
{ } Indicates fields that could be deleted, if not applicable
AND

2. [..... Limited, a company incorporated under the Companies Act, 1956]* and having its registered office at ..... (hereinafter referred to as the "Second Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

The above mentioned parties of the FIRST and SECOND PART are collectively referred to as the "Parties" and each is individually referred to as a "Party"
WHEREAS

(A) Nagpur Municipal Corporation, Nagpur, established under the MMC Act,1949, represented by its Municipal Commissioner and having its principal offices at Mahanagar Palika Marg, Civil Lines, Nagpur - 400 051, India (hereinafter referred to as the "**NMC**" which expression shall, unless repugnantto the context or meaning thereof, include its administrators, successors and assigns)

(B) NMC has invited applications (the "Applications") by its Request for Proposal No._____dated_____(the "RFP") for selecting Developer for the financing, development, operation ,maintenance and marketing &sales of various Project components of the NMC Mixed Use Commercial Complex with Office Spaces and requisite parking(the "Project") through public private partnership.

(C) The Parties are interested in jointly bidding for the Project as members of a Consortium and in accordance with the terms and conditions of the RFP document and other bid documents in respect of the Project, and

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(D) It is a necessary condition under the RFP document that the members of the Consortium shall enter into a Consortium Agreement and furnish a copythereof with the Application.

NOW IT IS HEREBY AGREED as follows:

1. Definitions and Interpretations

In this Agreement, the capitalised terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the RFP.

2. Consortium

2.1 The Parties do hereby irrevocably constitute a consortium (the "Consortium") for the purposes of jointly participating in the Bidding Process for the Project.

2.2 The Parties hereby undertake to participate in the Bidding Process only through this Consortium and not individually and/ or through any other consortium constituted for this Project, either directly or indirectly or through any of their Associates.

3. Covenants

The Parties hereby undertake that in the event the Consortium is declared the selected Bidder and awarded the Project, it shall incorporate a special purpose vehicle (the "SPV") under the Indian Companies Act, 2013 / LLP Act 2008 for entering into a Development Agreement with the NMC and for performing all its obligations as the Developer in terms of the Development agreement for the Project.

4. Role of the Parties: The Parties hereby undertake to perform the Roles and Responsibilities as described below:

a. Party of the First Part shall be the Lead member of the Consortium and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium during the Bidding Process and until the Appointed Date under the Development Agreement when all the obligations ofthe SPV shall become effective;

b. Party of the Second Part shall be {the ..... Member of the Consortium ;}

5. Joint and Several Liabilities

The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the RFP and the Development Agreement, till such time as the

Financial Close for the Project is achieved under and in accordance with the Development agreement.

6. Shareholding in the SPV

6.1 The Parties agree that the proportion of shareholding among the Parties in the SPV shall be as follows:

First Party:

Second Party:

6.2 The Parties undertake that the First Party will hold a minimum of 51% (fifty oneper cent) and the other Party will hold a minimum of 26% (twenty sixper cent) of the Equity of the SPV till completion of the Sales of the complete Project.

6.3 The Parties undertake that they shall comply with all Equity lock-in requirements set forth in the Development agreement.

7. Representation of the Parties

Each Party represents to the other Parties as of the date of this Agreement that:

a. Such Party is duly organised, validly existing and in good standing under the laws of its incorporation and has all requisite power and NMC to enter into this Agreement;

b. The execution, delivery and performance by such Party of this Agreement has been authorised by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/ power of attorney in favour of the person executing this Agreement for the delegation of power and NMC to execute this Agreement on behalf of the Consortium Member is annexed to this Agreement, and will not, to the best of its knowledge:

i. require any consent or approval not already obtained;

ii. violate any Applicable Law presently in effect and having applicability to it;

iii. Violate the memorandum and articles of association, by-laws or other applicable organisational documents thereof;

iv. violate any clearance, permit, concession, grant, license or other governmental authorisation, approval, judgement, order or decree or

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any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or

v. create or impose any liens, mortgages, pledges, claims, security interests, charges or Encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;

c. this Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it; and

d. there is no litigation pending or, to the best of such Party"s knowledge, threatened to which it or any of its Affiliates is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfilment of its obligations under this Agreement.

8. Termination

This Agreement shall be effective from the date hereof and shall continue in full force and effect until the Financial Close of the Project is achieved under and in accordance with the Development Agreement, in case the Project is awarded to the Consortium. However, in case the Consortium is either not pre-qualified for the Project or does not get selected for award of the Project, the Agreement will stand terminated upon return of the Bid Security by the NMC to the Bidder, as the case may be.

9. Miscellaneous

a. This Consortium Agreement shall be governed by laws of India.

b. The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the NMC.

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.
SIGNED, SEALED AND DELIVERED

SIGNED, SEALED AND DELIVERED

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Appendix A7

Statement of Legal Capacity

(To be forwarded on the letterhead of the Bidder/ Lead Member of Consortium)

Ref. Date:

To,
The Hon"ble Commissioner,
Nagpur Municipal Corporation, Nagpur
Civil Lines, Nagpur

Dear Sir,

We hereby confirm that we/ our members in the Consortium (constitution of which has been described in the application) satisfy the terms and conditions laid out in the RFP document.

We have agreed that ..... (insert member"s name) will act as the Lead Member of our consortium.

We have agreed that ..... (Insert individual"s name) will act as our representative/ will act as the representative of the consortium on its behalf* and has been duly authorized to submit the RFP. Further, the authorised signatory is vested with requisite powers to furnish such letter and authenticate the same.

Thanking you,
Yours faithfully,

(Signature, name and designation of the authorised signatory)
For and on behalf of.....

Appendix A8

Declaration

(To be forwarded on the letterhead of the Bidder/ Lead Member of Consortium)

Ref. Date:

To,
The Hon"ble Commissioner,
Nagpur Municipal Corporation, Nagpur
Civil Lines, Nagpur

Dear Sir,

We hereby confirm that amounts stated in the Financial Offer of the Bidder are above the minimum amounts mentioned in Clause 8.1 of this RFP document.

We agree that if our Financial Offer is below the minimum amounts mentioned in Clause 8.1 of this RFP, same will be treated as non-responsive Financial Bid.

Thanking you,

Yours faithfully,

(Signature, name and designation of the authorised signatory)
For and on behalf of.....

Annexure B - Financial Offer

(Refer Section 8)

Letter Comprising the Financial Offer

Dated:

To,
The Hon'ble Commissioner,
Nagpur Municipal Corporation,
Civil Lines,
Nagpur-1

Sub: Financial Bid for the Project – Development of NMC Mixed Use Commercial Complex on Plot No 5 of OCSP belonging to NMC.

Dear Sir,

1. With reference to your RFP document dated_____, I/we, having examined the Bidding Documents and understood their contents, hereby submit my/our Application for the aforesaid Project. The Application is unconditional and unqualified.

2. I/ We acknowledge that the NMC will be relying on the information provided in the Application and the documents accompanying the Application for selection of the Developer for the aforesaid Project, and we certify that all information provided therein is true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the Bid are true copies of their respective originals.

3. This statement is made for the express purpose of our selection as Developer for the development of the aforesaid Project.

4. I/ We shall make available to the NMC any additional information as it may find necessary or require to supplement or authenticate the Application.

5. I/ We acknowledge the right of the NMC to reject our Application without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever

6. I/ We certify that in the last three years, we/ any of the Consortium Members or our/ their Associates have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial NMC or a judicial pronouncement or arbitration award, nor been expelled from any project or contract by any public NMC nor have had any contract terminated by any public NMC for breach on our part.

7. I/ We declare that:

   a. I/ We have examined and have no reservations to the Bidding Documents, including any Addendum issued by the NMC;

   b. I/ We do not have any conflict of interest in accordance with Clauses 6.1.1 (c) of the RFP document;

   c. I/ We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in Section 9 of the RFP document, in respect of any tender or request for proposal issued by or any agreement entered into with the NMC or any other public sector enterprise or any government, Central or State; and

   d. I/ We hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 9 of the RFP, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

8. I/ We understand that you may cancel the Bidding Process at any time and that you are not bound to accept any Application that you may receive for the Project, without incurring any liability to the Bidders, in accordance with the RFP document.

9. I/ We believe that we/ our Consortium satisfy(s) the Net Worth, Turnover and Credit Line/Financial Facility criterion and meet(s) the requirements as specified in the RFP document.

10. I/ We declare that we/ any Member of the Consortium, or our/ its Associates are not a Member of a/ any other Consortium submitting an Application for the Project.

11. I/ We certify that in regard to matters other than security and integrity of the country, we/ any Member of the Consortium or any of our/ their Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory NMC which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.

12. I/ We further certify that in regard to matters relating to security and integrity of the country, we/ any Member of the Consortium or any of our/ their Associates have not been charge-sheeted by any agency of the Government or convicted by a Court of Law.

13. I/ We further certify that no investigation by a regulatory NMC is pending either against us or against our Associates or against our CEO or any of our directors/ managers/ employees.

14. I/ We undertake that in case due to any change in facts or circumstances during the Bidding Process, we are attracted by the provisions of disqualification in terms of the guidelines referred to above, we shall intimate the NMC of the same immediately.

15. The Statement of Legal Capacity as per the format at Appendix A7 of the RFP document, and duly signed is enclosed. The power of attorney for signing of Application and the power of attorney for Lead Member of consortium as per format provided at Appendix A4 and Appendix A5 respectively of the RFP, are also enclosed.

16. I/ We understand that the Selected Bidder shall either be an existing Company incorporated under the Indian Companies Act, 1956, or shall incorporate as such prior to execution of the Development Agreement.

17. I/ We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the NMC in connection with the selection of the Bidder, or in connection with the Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.

18. In the event of my/ our being declared as the Selected Bidder, I/we agree to enter into a Development Agreement in accordance with the draft that has been provided to me/ us prior to the Application Due Date. We agree not to seek any changes in the aforesaid draft and agree to abide by the same.

19. I/ We have studied all the Bidding Documents carefully and also surveyed the other project details. We understand that except to the extent as expressly set forth in the Development Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the NMC or in respect of any matter arising out of or relating to the Bidding Process including the award of Concession.

20. I/ We offer a Bid Security of Rs. 25,00,000 Lacs (Rs. Twenty Five Lacs only) to NMC in accordance with this RFP Document.

21. I/ We agree and understand that the Application is subject to the provisions of theBidding Documents. In no case, I/we shall have any claim or right of whatsoever nature ifthe Project is not awarded to me/us or our Application is not opened or rejected.

22. The financial offer has been quoted by me/us after taking in to consideration all the terms and conditions stated in the RFP, draft development agreement, our own estimates of cost

and after a careful assessment of the site and all the conditions that may affect the project cost .and implementation of the project

23. I/We agree and undertake to abide by all the terms and conditions of the RFP document.

24. {WE the consortium Members agree and undertake to be jointly and severally liable for all the obligations of the Developer under the Development Agreement till completion of complete sales of the Projects in accordance with the development agreement.}.

25. I/We shall keep this offer valid for 180 (One hundred and eighty) days from the submission due Date specified in RFP.

In witness thereof, I/We submit this Bid under and in accordance with the terms of the RFP document.

Yours faithfully

Date: (Signature, name and designation of the Authorized signatory)

Place: Name and seal of Bidder/ Lead Member

Note: Paragraphs in curly parenthesis may be omitted by the Bidder, if not applicable to it, or modified as necessary to reflect Bidder-specific particulars.

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Annexure C - Financial Offer Format:

Dated: [●], 2022

To
The Hon'ble Commissioner
Nagpur Municipal Corporation,
Mahanagar Palika Marg, Civil Lines,
Nagpur.

Sub: Financial Bid for Selection as Developer for the NMC Mixed Use Commercial Complex Project on Plot No 5 of OCSP.

Dear Sir,

1. With reference to your RFP dated_____, we, having examined the Bidding Documents and understood their contents, hereby submit our Financial Quote for the aforesaidProject.

2. The Financial Quote is unconditional and unqualified.

3. We hereby offer the Maximum Lump-sum Financial Offer of _____ (in words.....) over and above the minimum of Rs .....crores (Rupees ..... Crores and ..... Lacs only) (i.e. Rs .....crores) in respect of the Maximum Lump-sum Financial Offer to be paid to NMC from the Sale Proceeds of various components of the Project.

4. We agree to keep this offer valid for 180 (one hundred and eighty) days from the Application Submission Due Date.

5. We agree and undertake to abide by all the terms and conditions of the RFP.

In witness thereof, we submit this Financial Quote under and in accordance with the terms of the RFP.

Yours faithfully,

Date: [●], 2022(Signature, name and designation of the Authorized signatory)

Place:

PREBID QUERIES, REPLIES & CORRIGENDUM

Pre-Bid Queries & NMC Responses

With regard to the Request for Proposal for:

"Design, Build, Finance, Operate and Sale of the Mixed-Use Commercial Complex at the Plot No. 5 of the Orange City Street Project

Date of 2nd Pre-Bid Meeting: 29th November 2022 at 4.00-5.00 p.m.

Venue: Office of the Hon'ble Chief Engineer, 5th Floor, New Admin. Building, NMC, Civil Lines Nagpur.

List of Participants:

1. Leena Upadhaye, Chief Engineer, NMC.
2. Manoj Talewar, Superintending Engineer, NMC.
3. Naresh Borkar, Executive Engineer, NMC.
4. Rajeev Gautam,Deputy Engineer, NMC.
5. Sunil Bawane, Junior Engineer, NMC.
6. Representatives of Architect Hafeez Contractor- PMC
   a. Sumeet Mankar.
   b. Richard R Gonsalves.
   c. Alphonsa R Gonsalves.
7. Representatives of prospective bidders: Nil.

Hard Copy received from M/s Sandesh Infrastructures Pvt. Ltd.

S.N.	Clause/ Section/Article	Tender Description	Bidder Request for Clarification/Relaxation	NMC Response to Queries
Sandesh Infrastructures Pvt. Ltd.				
1.	RFP: Page 44 Clause 7.1.1 (b).	Average Turnover of the Bidder for last 3 financial years ending 31.03.2022: INR 40 Crores (Rupees Forty Crores).	Please consider highest turnover as Rs 31 Crores in place of average Rs 40 Crores because of COVID-19, the construction industry has been totally hampered.	Kindly refer Corrigendum No.1.
2.	RFP: Page 44 Clause 7.1.1 (b).	The bidder shall have a minimum Net Worth of INR 5 Crores on Application Due Date as stipulated in Clause 7.2	We request to reduce the Net-worth from Rs 5 Crores to Rs 3.50 Crores.	Kindly refer Corrigendum No.2.
3.	RFP: Page 22 Clause 5.3.	Regarding Performance Security	Please reduce Performance Security to Rs 3 Crores. The disbursement of Performance Security should be altered as within 60 Days from the issuance of Building Permit.	RFP condition prevails.
4.	RFP: Page 38 Clause 6.1.1. c.(vii)	Regarding considering experience of Associates	Kindly allow experience of Associates, if the Associate is having shareholding of more than 74% in the company i.e. technical and financial credentials of the Associate should be wholly considered if it is having more than 74% shareholding. In such a scenario there is no need of Consortium.	RFP condition prevails.

5.	Development Agreement: Page 32 Clause 4.5.(a)	The FSI permitted by the Town Planning Department is 2.75 as per the UDCPR 2020	In Development Agreement only 2.75 FSI is mentioned. Ancillary Area i.e. 60% for residential and 80% for commercial is not mentioned.	Development Agreement clause prevails.
6.	Development Agreement: Page 32 Clause 4.5.(a)	The restriction on height as approved by AAI is 46.32 meters	For developing the commercial space as per our vision, please relax the clause of building height, we are ready to bear the charges for permission from AAI.	Agreed. In case additional height is permitted by AAI, it shall construe as Additional Development as per the terms of the Development Agreement Clause 4.5.
7.	RFP: Page 11 Clause 4.1.b.	Regarding Construction Period.	The Construction Period is mentioned as 42 months from the date of signing of the Agreement but as the plans are not yet sanctioned kindly change it as from the date of building permit issuance.	RFP condition prevails.
8.	Earnest Money Deposit/Bid Security		Please reduce the EMD to Rs 10,00,000.	Kindly refer Corrigendum No.3.

9.	RFP: Page 42 Clause 6.4.d.	Regarding instalments for payment of Upfront Premium.	Alter the disbursement manner as: Rs 2 crores within 30 days from issuing of building permit. Balance Rs 9.50 crores by way of 5 equal instalments of Rs 1.90 crores each to be paid every 2 months i.e. within 10 months from issuing of building permit.	RFP condition prevails.

Corrigendum No 1:

RFP: Page 44 Clause 7.1.1 (b).

Existing Clause:

Average Turnover of the Bidder for last 3 financial years ending 31.03.2022: INR 40 Crores (Rupees Forty Crores).

Modified Clause:

Annual Turnover of the Bidder in any one of the last 3 financial years ending 31.03.2022 should be minimum INR 30 Crores (Rupees Thirty Crores).

Corrigendum No 2:

RFP: Page 44 Clause 7.1.1 (b).

Existing Clause:

The Bidder shall have a minimum Net-worth of INR 5.00 Crores (Rupees Five Crores) on the Application Due Date as stipulated in the Clause 7.2.

Modified Clause:

The Bidder shall have a minimum Net-worth of INR 3.00 Crores (Rupees Three Crores) as on 31.03.2022 as stipulated in the Clause 7.2.

Corrigendum No 3:

RFP: Page 20 Clause 5.2.1.: Bid Security.

Existing Clause:

Bidders shall deposit, along with their Bid, a Bid Security of Rs. 25,00,000/-(Rupees Twenty Five Lacs only).

Modified Clause:

Bidders shall deposit, along with their Bid, a Bid Security of Rs. 10,00,000/-(Rupees Ten Lacs only).

All bid security related clauses of the RFP and Draft Development Agreement to be read in line with the above modified clause.

LEGAL VETTING

C.S. KAPTAN
Senior Advocate
Kaptanwada, Zenda Chowk, Mahal, Nagpur-440032
Phone:- 9422107369 Email:- cskaptan@gmail.com

OPINION

My opinion is sought on Draft Development Agreement for Development of N.M.C. Mixed Use Commercial Complex Project on plot no.5 of Orange City Street Project of N.M.C. at Nagpur on Design, Built, Finance, Maintain and Sale Mode. I have gone through the Agreement. The Corporation has invited the bids and has accepted the bids from the participating the parties and has also issued letter of Award to the successful bidders. I perused the terms and conditions of the draft agreement. Under the Draft Agreement the transfer of the project facilities to be developed by the proposed developer is done by executing tripartite agreement with the Nagpur Municipal Corporation, Developer and Prospective Purchaser of the Project Facility as the three parties. In my opinion, however, while drafting tripartite agreement care should be taken to examine the provisions of RERA Act, so as to safeguard the interest of Municipal Corporation as no liability should be fasten on the corporation on account of any default, if committed by the developer, in execution of his agreement with the prospective purchaser of the project facility.

Hence this opinion.

C.S. KAPTAN
Senior Advocate.

AKHIV PATRIKA AND TABA PAVTI

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न. भू. मा. २० म.
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आखीव पत्रिका

मौजा :- सोमलवाडा

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सुविधाधिकार

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इतर शेरे --

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धाकर (धा) पट्टेवार (प) इतर भार (भा)	साक्षांकन
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	सत्यप्रतिलिपी		12/8/17	201
			12/04/17	

PRAFULVED INFRA PVT. LTD. NAGPUR

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न. भू. मा २० म
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आखीव पत्रिका

मौजा :- भामटी

भूमापन क्रमांक	क्षेत्र	भूधारणा पद्धती	शासनाकडे भरण्याच्या महसूलाच्या अगर भाडयाच्या रकमेचा तपशील व ती पुनरीक्षणास केव्हा पात्र आहे.
२७०	१६४६२६.१५ चौ.मी	फ	

सुविधाधिकार

धारक सन ~~[illegible]~~ --२०१७
हक्काचे मळ (उपलब्ध झाल्याप्रमाणे) नागपूर महानगर पालिका, नागपूर
[illegible] २३५१९

पट्टेदार --

इतर भार --

इतर शेरे --

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धाकर (धा) पट्टेवार (प) इतर भार (भा)	साक्षांकन

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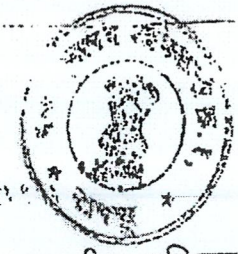

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आखीव पत्रिका

मौजा :- जयताळा

भूमापन क्रमांक	क्षेत्र	भूधारणा पद्धती	शासनाकडे भरण्याच्या महसूलाच्या अगर भाडयाच्या रकमेचा तपशील व ती पुनरीक्षणास केव्हा पात्र आहे.
७९९	८८९४.९० चौ. मी.	फ	

सुविधाधिकार

धारक सन ~~१९७१~~-२०१७
हक्काचे मठ (उपलब्ध झाल्याप्रमाणे) नागपूर महानगर पालिका, नागपूर
क्र. ४४६७

पट्टेदार --

इतर भार --

न भू ख. क्र. ३
नागपूर

इतर शेरे --

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धाकर (धा) पट्टेदार (प) इतर भार (भा)	साक्षांकन
		०६०३३२८		

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([illegible])
[illegible]

[illegible] १२/०१/१७
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PRAFULVED INFRA PVT. LTD. NAGPUR





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ताबा पावती

विषय :- नार्थ अबांझरी येथील ऑर्डीनन्स फॅक्टरीच्या मालकीच्या रेल्वे साईडींग 30.49 हे. जमिनीचा महानगर पालीका नागपूर यांना ताबा देणेबाबत.

संदर्भ :-
1) शासन ज्ञापन महसुल व वनविभाग मुबई क. 3406/यु.वो.आर. 2194/प्रक पु.676/ज-5 दि. 11.9.06
2) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 1117/06 दि. 26.9.06
3) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 1306/06 दि. 2.12.06
4) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 1406/06 दि. 28.12.06
5) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 14/07 दि. 9.01.07

ऑडीनन्स फॅक्टरीच्या मालकीचे सोबतच्या जोडलेल्या प्रपत्रात नमुद असलेल्या मौजा जैताळा, टाकली, भामटी, खामला , सोमलवाडा, येथील रेल्वे साईडींगच्या एकुण जागेपैकी 30.49 हे. आर जागेचा ताबा.

ताबा देणार
1) तहसिलदार नागपूर(श)
2) मंडळ अधिकारी नागपूर
3) तलाठी

ताबा घेणार
1)स्थावर अधिकारी
महानगर पालीका नागपूर

उक्त जागेचा ताबा घेतल्या नंतर स्थावर अधिकारी महानगर पालीका नागपूर यांना संबंधित नगर भुमापन अधिकारी नागपूर क.3 कडुन मोजणी करुन घ्यावी. व नामांतरण करुन घ्यावे.

ठिकाण :- नागपूर
दिनांक:- 12/09/2006.

ताबा देणार
1) तहसिलदार नागपूर (श) Tahsildar Nagpur
2) मंडळ निरिक्षक नागपूर
3) तलाठी (जैताळा,भामटी,सोमलवाडा)
4) तलाठी (टाकळी) 11/01/06 तलाठी
5) तलाठी (खामला) त. सा. क्र. ...
तहसिल कार्यालय नागपूर (शहर)

ताबा घेणार
1) स्थावर अधिकारी
महानगर पालीका नागपूर
स्थावराधिकारी
नागपूर महानगरपालिका

GRAFULVED INFRA PVT. LTD. NAGPUR

ABDULLAH HAFEEZ CONTRACTOR MUMBAI





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ADVOCATE OPINION FOR SALE OF PROPERTY

10 NIT Layout,
Satyam Apartments;
Ravi Nagar Square;
Nagpur - 440033
Cell 9423412266

J. B. KASAT
ADVOCATE

29/7/2017

By Hand / Email

To,

Municipal Commissioner,
Nagpur Municipal Corporation,
Nagpur

Subject: Legal Opinion in matter of NMC rights for Sale of Property: Communication to the Law Officer dated 14/7/2017 and 25/7/2017

Sir,

I have perused the said communications as only the said communications are forwarded to me seeking opinion.

It appears that the NMC is intending to dispose off property by sale.

That, the disposal of property by the corporation is governed by Section 79 of the MMC Act, 1949

Section 79(c) empowers the commissioner, with the sanction of the Corporation, to lease, sell or let out on hire or otherwise convey any property, movable or immovable belonging to the corporation.

As per Section 79(d) the consideration for the same shall not be less than the current market value.

Furthermore the Provisio (a) to section 79 ***no property vesting in the corporation for the purpose of any specific trust shall be leased, sold or conveyed such that the purpose for which it is held is prejudicially affected.***

As per Provisio (b) ***no property transferred to the corporation by the government, can be leased or sold or otherwise conveyed in any manner contrary to the terms of the transfer except with the prior sanction of the Appropriate Government***.

Therefore the provision of Section 79 of the MMC Act, provides for the conditions and restrictions which are to be adhered to before the municipal property can be disposed. I am therefore of the opinion that in compliance of the provisions of Section 79 of the MMC Act, the municipal property can be disposed off.

I have tried my best to search the apex court judgment precluding the Municipal Corporation from disposing off its property by sale, however I have not come across any such judgment however, there are pronouncements by the apex court that disposal of property by

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10 NIT Layout,
Satyam Apartments;
Ravi Nagar Square;
Nagpur - 440033
Cell 9423412266

J. B. KASAT
ADVOCATE

29/7/2017

the Corporation should be fair and transparent like public auction etc.

Kindly therefore examine the disposal of municipal property in the light of Section 79 of the MMC Act on case to case basis and do the needful.

I remain

Yours Truly,

J. B. Kasat

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110

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PRESENTATION

Technical Concept Presentation for the Development of the OCSP Plot No 5 through DBFMS mode.

By

The Consortium of PrafulVed Infra Pvt. Ltd. and Praful Narendra Deshmukh (Proprietor)

NAGPUR
MUNICIPAL CORPORATION

MARCH 2023

111

UNDERSTANDING OF THE PROJECT

112

Introduction

- Nagpur Municipal Corporation (NMC) intends to develop and market the proposed integrated Orange City Street Project–Mixed Use Urban Complex, on 30.49 hectare plot on Wardha Road to Jaitala Road.

- Currently NMC proposes to develop as a component of the Orange City Street Project, a Mixed Use Commercial Complex with requisite parking at the Plot No 5 site at Jaiprakash Nagar.

- NMC intends to develop the Project on Public-Private Partnership basis under the DBFOS model and has thus carried the Domestic Competitive Bidding Process for selection of an entity to which the Project may be awarded for development and sales.

- The conceptual planning considering maximum potential of the said Mixed Commercial Complex has been undertaken by NMC.

- The selected Developer has the option of designing the project as per its feasibility and viability.

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- We, the Consortium of PrafulVed Infra Pvt. Ltd. and Praful Narendra Deshmukh (Proprietor) are therefore submitting this Proposal in response to the tender floated by NMC.

- As per the requirement of the tender conditions, we are submitting this Technical Concept Presentation based on our experience of undertaking similar Projects and the details provided in the bidding documents.

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KEY FEATURES OF THE PROJECT

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Key Features

- The Developer shall construct the Mixed Use Commercial Complex on Plot No of OCSP on a total plot area of 7534 square meters within a period of 42 (Forty Two) months.

- The Developer shall have the development and sales rights on the Project for a period of 84 (eighty four) months including the construction period of 42 months from the date of signing of the Development Agreement.

- Post signing of the Development Agreement with NMC and on issue of Commencement Certificate from NMC, the Developer can market the project and undertake the Sales of the various components of the said Project.

- The Sale Agreement with prospective buyers shall be a tripartite agreement with NMC, Developer and the buyer as the three parties.

- The Developer should be able to generate revenues, based on its independent risk analysis, from the commercial sale of the various components of the Mixed-Use Commercial Complex in compliance with the applicable law.

Key Features

- The Developer would have the flexibility to develop and sell the various components of the Mixed Use Commercial Complex after necessary approval from NMC.

- The Developer should plan the Project in synchronization with the conceptual idea of the entire Orange City Street Project.

- The front Arcade with commercial shops on the Ground and First floor and building elevation as per the Orange City Street theme should be strictly adhered to at all times.

- Any change is use proposed by the Developer after Ground and First floor should be permissible as per the UDCPR and as defined in the Development Agreement. The financial & technical viability of the Developers' vision/planning should be presented to NMC during the Technical Concept Presentation.

- In case the prospective developer plans to develop the project beyond the FSI and height utilization allowed under this RFP by NMC and utilizes additional FSI and height, then such additional utilization shall constitute Additional Development as spelt out in Development Agreement.

PROJECT STRUCTURE

PROJECT STRUCTURE

- PPP model (Design Build Finance Maintain & Sale -DBFMS) to be adopted.

- In the proposed project commercial development is envisaged with minimum recourse to NMC's resources. In this regard the Project is structured in such a way that Private sector participation is anticipated for developing, marketing and sales of the property.

- NMC shall earn a fixed Upfront Premium and a quoted Sales Revenue Share. Hence the Developer based on its calculations and assumptions can earn a handsome upside after meeting NMC payment obligations.

- The project would be structured in such a way that is applicable to the terms and conditions of the authority and commonly benefitting the various stakeholders.

- The project will be developed and established under pre-specified performance standards.

- The project will be developed on the design standards and specifications provided by NMC.

- The Developer is at liberty to undertake changes in the Design of the Project subject to obtaining necessary sanctions from the Town Planning Authority-NMC.

ABOUT US

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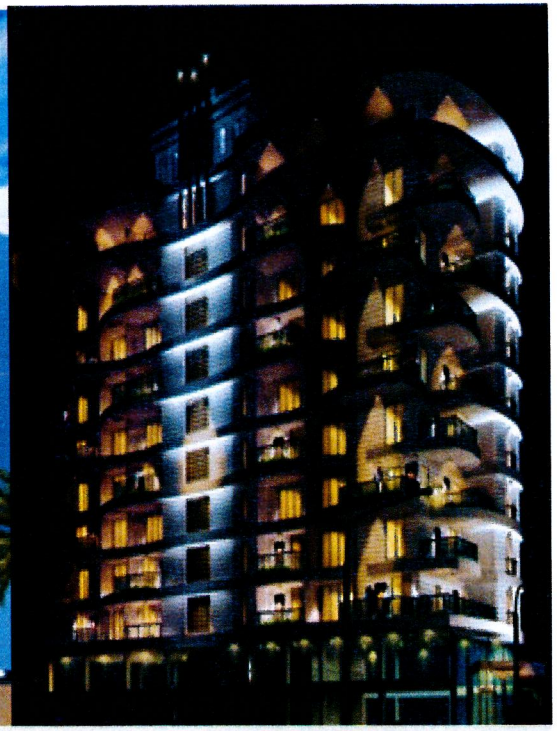
About Us

Prafulved Infra Pvt. Ltd





Praful Deshmukh & Co. began as a buildership & general works contractor in 2006. Over the years, the group has undertaken several challenging projects and accumulated skills, know-how and experience in design-and-build solutions, project management services and related engineering work.

Our Vision

To deliver beyond expectations every single time by cultivating consistency and practicing attention to detail.

Mission

To procure projects at competitive pricing, provide safe working conditions and deliver quality results within a given time frame.

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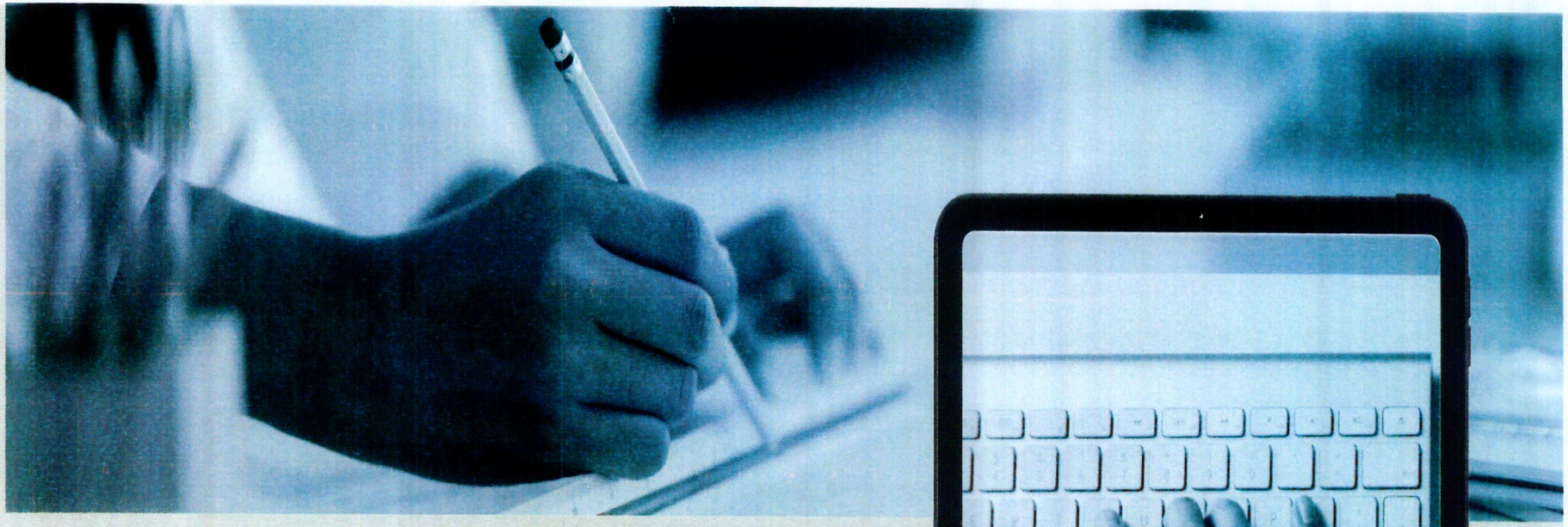
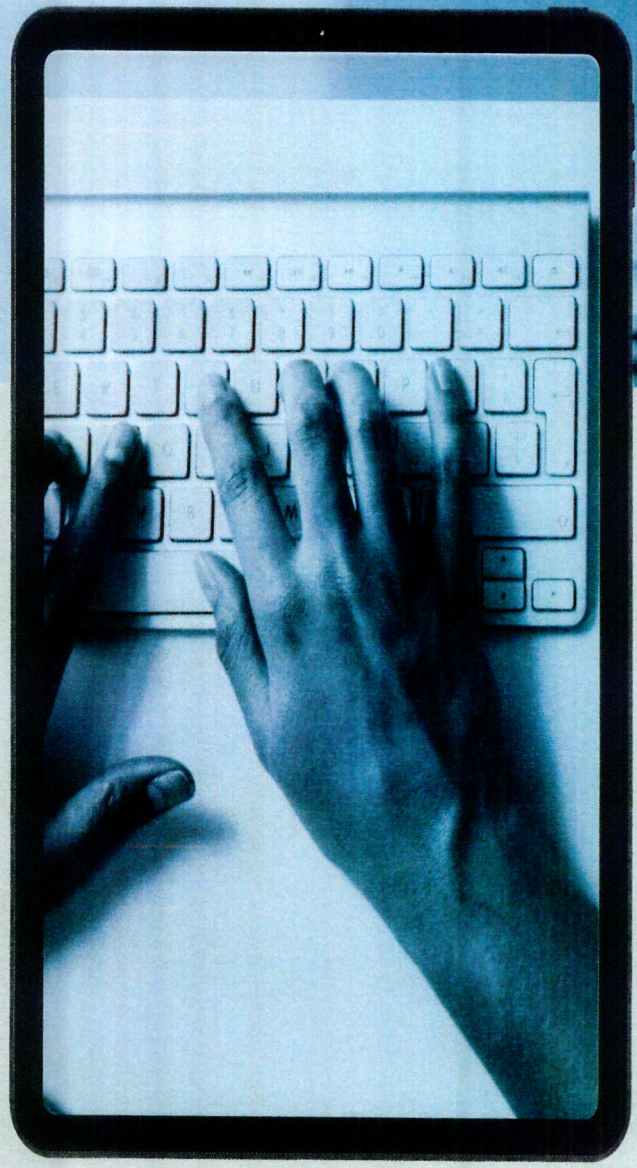
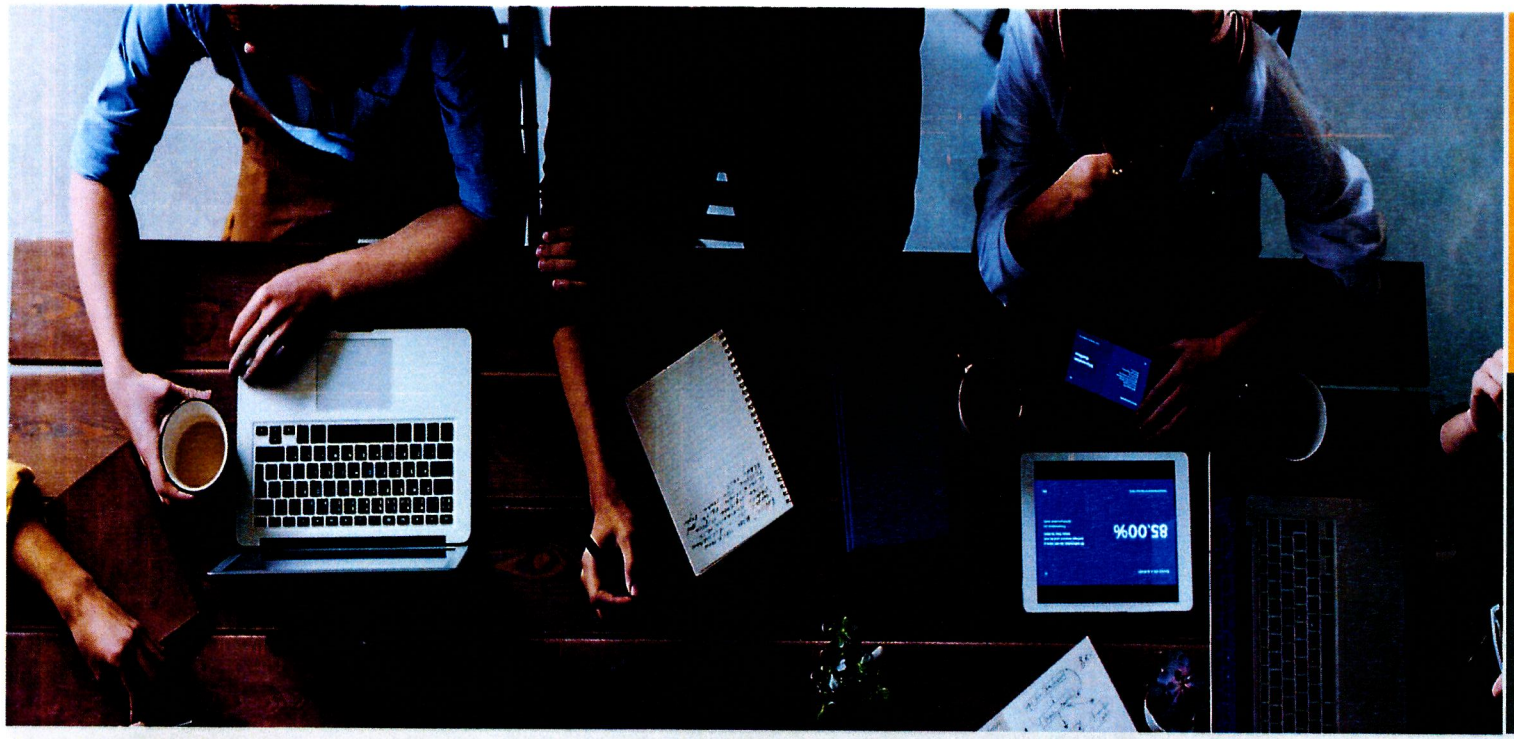




Our Management Team

The business is driven by our two working directors who have collectively accumulated more than 20 years of experience in the real estate and construction industry. They are deeply involved in all aspects of business development, procurement, project management and administration of the company.

The management team proactively gathers feedback, identifies changes in business environment, reviews work processes and communicates key learning points and company policy to all staff at regular meetings



Our People

We value our team and its pivotal role in successful delivery of our services. Our comprehensive training program ensures our people are equipped with technical, managerial and interpersonal skills.

We firmly believe that a team that receives the right training, accredited certification and practical knowledge is the only one that can remain confident and relevant in an ever-changing market place.

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PAST EXPERIENCE

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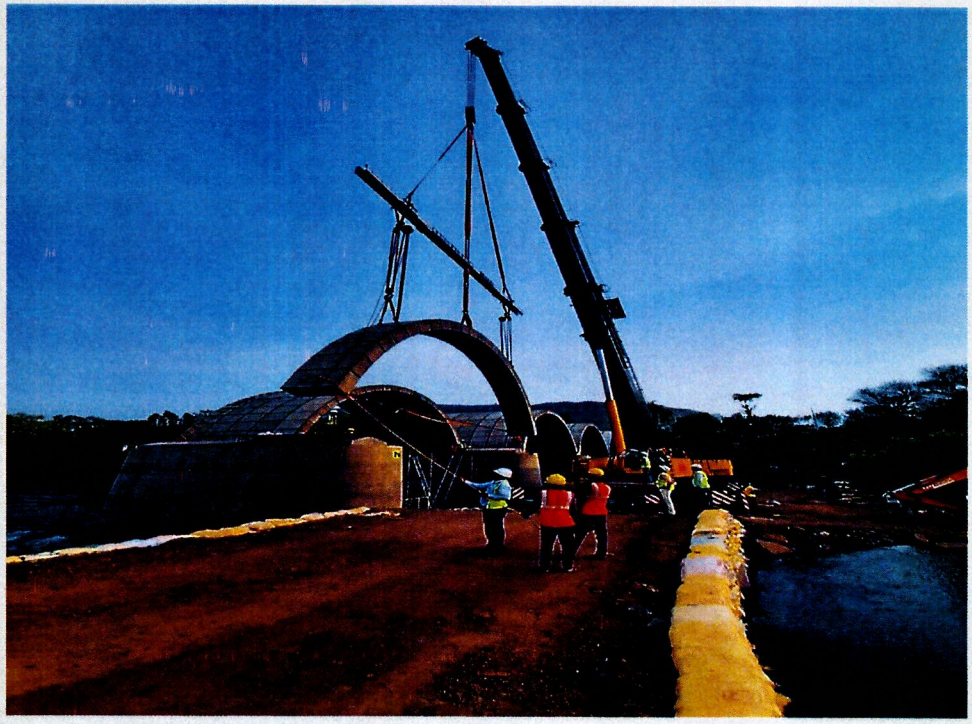
Completed Projects



- Worked for SRA (NMC Nagpur) Built more than 1000 homes
- Constructed 3 Bridges under PWD. Patented with the name ARC Technology at Satara District. Contract Value: 20 Cr.
- Tallest commercial building in Nagpur ,G+18 with 2 basement
- Over 20 Residential & Commercial projects successfully completed

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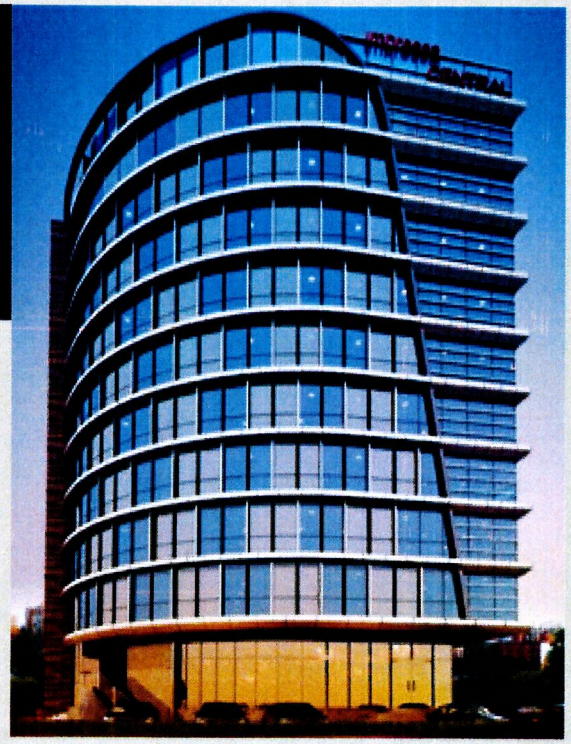
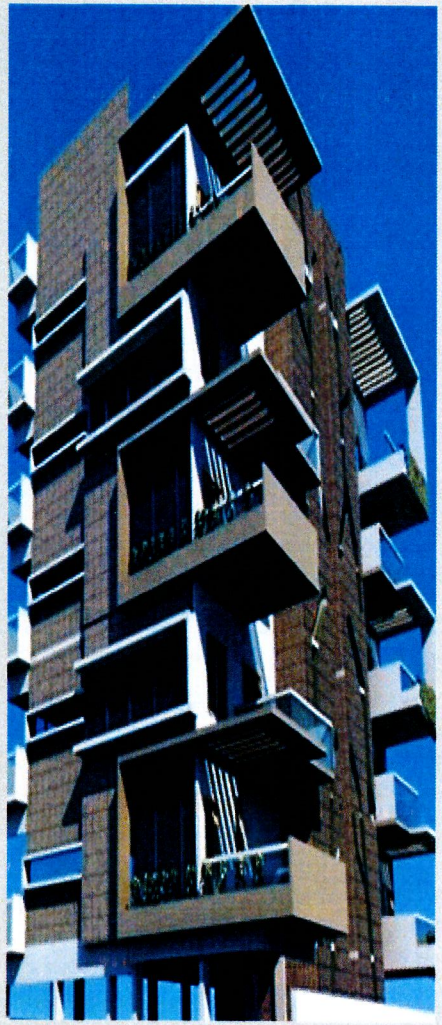
Completed Projects

Completed Projects







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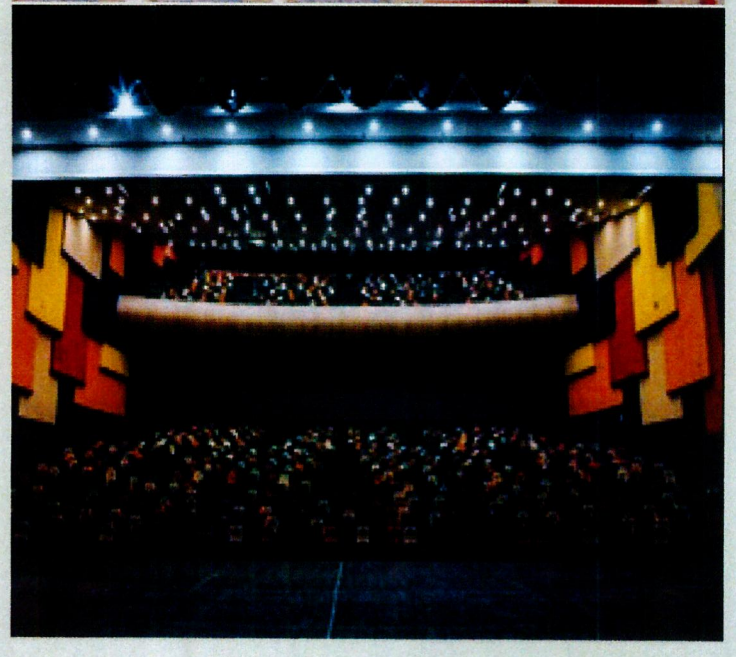

Completed Projects

Constructed the Prestigious Kavivarya Suresh Bhat Auditorium (Project by NMC) inaugurated by President of India Hon. Shri Ramnath Kovind

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Achievements

Awarded by Nagpur Municipal Corporation at the hands of Hon. Shri Nitinji Gadkari - Union Minister, Road Transport & Highways, for successful completion of Kavivarya Suresh Bhat Auditorium

Paid Demand (17.79 Cr) for Building Permission of Commercial Tower to Town Planning Nagpur Municipal Corporation.

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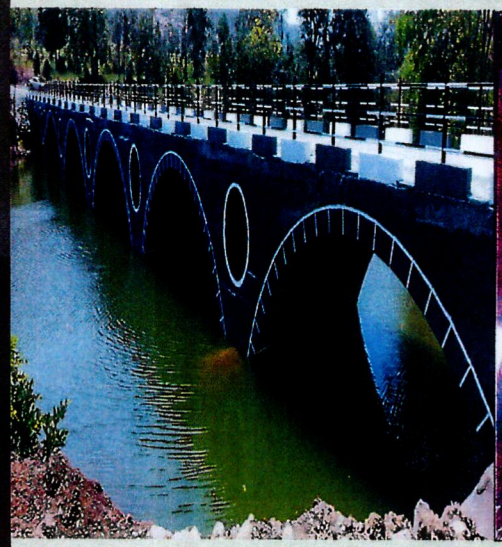
Other Achievements







Constructed 3 bridges using
Flexi Arch technology for the first time in India & completed the project in a brief span of 4 months one of them is nominated for best Precast structure in India by ICI (Indian Concrete Institute) held at Delhi in 2018.

Casted longest PT BEAM in a Commercial /Public building 38m x1.8m x 1.8m.

COVID-19 WORK
Renovated 110-bedded Indira Gandhi Rugnalaya in 1 Month & 36-bedded Isolation Facility in just 7 days for NMC during the first Covid-19 Lockdown in 2020

PPP Project Experience

Orange City Street Plot

No 5 Mixed Use Project

As this is a PPP project the experience of similar type of work will play vital role in timely execution of this project.

Prafulved Infra Pvt Ltd is already associated with NMC for the development of Plot no 1B and the project is moving well ahead of expected completion.

We are also associated with NMC for the development of Plot no 2A





Experience of commercial project

Orange City Street Plot

No 5 Mixed Use Project

We are proud to have delivered the tallest commercial project to Nagpur city.

Highlights :

It's a fully commercial tower situated at prime location of Shivaji Nagar Nagpur.

G+18 full glass façade with heat resistive glasses.



66132

Quality

Orange City Street Plot

No 5 Mixed Use Project

The Orange City Plot No 5 Mixed Use Project is a visionary project which promises to be a gem in Nagpur's future skyline and proposed Orange City Street.

As an ISO 9001:2015 & ISO 14001:2015-certified company with a work ethic rooted in quality and service, we believe our long-standing associations with vendors and suppliers of the highest repute, will continue to aid us in delivering the kind of high-quality, world-class construction required for a prestigious project such as this.



ON-TIME
Completion

Orange City Street Plot

No 5 Mixed Use Project

86134

Construction Schedule as per the Existing Plan is as follows:

RCC Part Completion Period- 38 Months

Services Completion Period- 4 Months

HOW IS THIS ACHIEVABLE?

- Our team of In-house Architects Project Planers & Own Shuttering material simplifies achieving above deadlines



Our Planning for the Project:

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- We have studied the conceptual planning documents issued by NMC with the bidding documents and we plan to develop the Project on the lines of the conceptual planning envisaged by NMC.

- In case of any Additional Development proposed, the terms and conditions of the Request for Proposal and Development Agreement shall be adhered to.

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Our Financial Planning

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AREA STATEMENT AS PER OUR PLANNING

Floor	Floor-wise Saleable Area in Sq.mt
Ground Floor	2,788.00
First Floor	2,788.00
Second Floor	2,600.00
Third Floor	2,600.00
Fourth Floor	2,600.00
Fifth Floor	2,600.00
Sixth Floor	2,600.00
Seventh Floor	2,600.00
Eighth Floor	2,600.00
Ninth Floor	2,600.00
Tenth Floor	2,600.00
Eleventh Floor	2,600.00
Twelveth Floor	2,600.00
Thirteenth Floor	2,600.00
Terrace Floor	2,600.00
Total Area	**39,376.00**

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351137

PRODUCT MIX AS PER OUR PLANNING

Floor	Project Component
Ground Floor	Commercial
First Floor	Commercial
Second Floor	Commercial
Third Floor	Office
Fourth Floor	Office
Fifth Floor	Residential
Sixth Floor	Residential
Seventh Floor	Residential
Eighth Floor	Residential
Ninth Floor	Residential
Tenth Floor	Residential
Eleventh Floor	Residential
Twelveth Floor	Residential
Thirteenth Floor	Residential
Terrace Floor	

BSL 138

REVENUE ASSUMPTIONS

Floor	Floor-wise Sale Rate in Rs / Sq mt	Floor-wise Sale Rate in Rs / Sq ft
Ground Floor & First Floor	94,941.00	8824
Second Floor	94,941.00	8824
Third Floor	84,788.00	7880
Fourth Floor	84,788.00	7880
Fifth Floor	65,257.50	6065
Sixth Floor	65,257.50	6065
Seventh Floor	65,257.50	6065
Eighth Floor	65,257.50	6065
Ninth Floor	65,257.50	6065
Tenth Floor	65,257.50	6065
Eleventh Floor	65,257.50	6065
Twelveth Floor	65,257.50	6065
Thirteenth Floor	65,257.50	6065
Rooftop	-	0

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SCC 139

SALES & REVENUE SHARING PATTERN

S.N.	Sale Percentage of the components of the Mixed Use Commercial Complex	Percentage of Financial Offer as quoted to be payable to NMC within 42 months from Effective Date
1	20%	25%
2	45%	50%
3	70%	75%
4	80%	100%

S.N.	Percentage of Project Completion in terms of the approved Project Cost	Percentage of time taken from the maximum of 42 months
1	20%	25%
2	45%	50%
3	70%	75%
4	100%	100%

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OTHER ASSUMPTIONS

Particulars	Details
Estimated Bare Shell Construction Cost without. IDC in Rs Crores.	100.30
Ownership of the Project Land	In name of NMC
Parking	Two Basements
Total Floors	G+13
Wall Area for Advertisements (Sq ft)	0.00
Advertisement Rate (Rs/Sq.ft/annum)	125
Escalation in Advertisement rate in every 3 years	10%
Annual Escalation in Sale Rates	7%
Upfront Premium Amount (Rs Crore)	11.5
Marketing and other Exp (% of total revenue)	2%
Operations & Maintenance (% of total revenue)	2%
Insurance during Operation Phase (% of depreciating project value)	0.15%
Bank Loan not considered	

PROJECT COST

Cost Head	Total Cost	In Rs Crs
Building Civil Work (2 Basements plus G+13)	85,00,00,000.00	85.00
GST@18%	15,30,00,000	15.30
Total	100,30,00,000	100.30

Bare Shell cost without IDC plus GST considered for calculations

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FUNDING STRATEGY

The Consortium has the necessary funds in place for execution of this project.

The Consortium already has Letters for financial support from the bank to the tune of Rs 15.00 Crores.

The Consortium is very well equipped for financing the Project as of today even without considering the booking amounts like to be received from the 2nd year onwards.

REVENUE ANALYSIS OF THE PROJECT

Total Revenue From Project		
Floor	Floor-wise Saleable Area in Sq.mt	Floor-wise Revenue in Rs
Ground Floor	2,788.00	264695508
First Floor	2,788.00	264695508
Second Floor	2,600.00	246846600
Third Floor	2,600.00	220448800
Fourth Floor	2,600.00	220448800
Fifth Floor	2,600.00	169669500
Sixth Floor	2,600.00	169669500
Seventh Floor	2,600.00	169669500
Eighth Floor	2,600.00	169669500
Ninth Floor	2,600.00	169669500
Tenth Floor	2,600.00	169669500
Eleventh Floor	2,600.00	169669500
Twelveth Floor	2,600.00	169669500
Thirteenth Floor	2,600.00	169669500
Terrace Floor	2,600.00	0
Total Revenue from Sales of Property	**39,376.00**	**2744160716**
	In Rs Crores	**274.42**

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FEASIBILITY ANALYSIS OF THE PROJECT

Revenue Sharing with NMC including Upfront Premium	IRR (%)
Base Case Rs 111.50 Crores	8.76%
Rs 112 Crores	8.65%
Rs 112.50 Crores	8.54%

PROFITABILITY OF THE PROJECT

Cost to Developer

Bare Shell Project Cost without IDC	100.30
Minimum NMC payment as per bidding documents	111.5
PMC and Insurance charges	1.61
Total Cost to Developer	**213.41**

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Revenue to Developer

A	B	C
Sales Revenue in Rs Cr. Approx.	**Total Cost in Rs Crores**	**Net Revenue in Rs Crores (A-B)**
274.42	213.41	**61.04**

MARKETING & SALES STRATEGY

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Brands Associated With Us for Commercial Spaces

kotak Kotak Mahindra Bank

DASS



WESTSIDE

Domino's Pizza

THE Albert Ellis INSTITUTE

BAJAJ FINANCE

Kawasaki

MAX LIFE INSURANCE

MOTOR HARLEY-DAVIDSON CYCLES

Brands Associated With Us
For PLOT NO 1B OCM











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Orange City Street Plot
No 5 Mixed Use Project

FAST SELLING



As seen here, we sold our last G+18 fully Commercial Tower in a record-breaking span of 15 Days.
For the Plot no 1B Orange City Mall we have 100% sale commitment .

For the Orange City Street Plot No 5 Mixed Use Project too, Fast-selling shall play an important role, as NMC'S Land Cost Payment would depend on it.

With our far-reaching customer base, extensive network and having already received letters of interest from existing clients; we can guarantee fast-moving sales

Marketing & Sales Strategy

- We are in advanced discussions with our existing clients for this new project.
- Sister Brands of the brands already associated with us have evinced interest in this project.
- We are currently analyzing the demand for premium residential tenements in the zone and have received positive responses for the same.
- We plan to showcase our project through various Trade Journals as well as tie ups with agencies such as CREDAI etc.
- We plan to showcase our projects at national and international Urban Infrastructure Trade Fairs.

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Way Ahead

- Financial Proposal opening.
- Signing of the Agreement.
- Fulfilling the compliances as per the executed Agreement.
- Handover of Site by NMC.
- Obtaining the various clearances for the project.
- Drawings preparation and sanction with DPR approval.
- Commencement of Construction Activities.
- Marketing of the project.
- Sales and Handover of various components of the Project to the Buyers.

FINANCIAL OFFER

PRAFULVED INFRA PVT. LTD.
ENGINEERS | BUILDERS | CONTRACTORS
CIN NO.:-U45200MH2019PTC319415

Annexure C - Financial Offer Format:

To
The Hon'ble
Commissioner Nagpur
Municipal Corporation,
Mahanagar Palika Marg,
Civil Lines,Nagpur.

Sub: Financial Bid for Selection as Developer for the NMC Commercial ComplexProjecton Plot No 5 of OCSP.

Dear Sir,

1. With reference to your RFP dated 10/11/2022, we, having examined the BiddingDocuments and understood their contents, hereby submit our Financial Quote for the aforesaid Project.

2. The Financial Quote is unconditional and unqualified.

3. We hereby offer the Maximum Lump-sum Financial Offer of 1117500945 (One Hundred Eleven Crore Seventy-Five Lakh Nine Hundred &Forty-Five Only) over and above the minimum of Rs 1115000000 crores (One Hundred Eleven Crore Fifty Lakh Only) in respect of the Maximum Lump-sum Financial Offer to be paid to NMC from the Sale Proceeds of various components of the Project.

4. We agree to keep this offer valid for 180 (one hundred and eighty) days fromthe Application Submission Due Date.

5. We agree and undertake to abide by all the terms and conditions of the RFP.

In witness thereof, we submit this Financial Quote under and in accordance withthe terms of the RFP.

Yours faithfully,

(Director)

(Prafulved Infra Pvt Ltd)

Date:23/12/2022

Place: Nagpur

PRAFULVED INFRA PVT. LTD. NAGPUR

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14 - A, Shri Krishna Residency, Khare Town, Dharampeth, Nagpur-440 010
Mob.: 9604078999 | e-mail: prafuldeshmukh9@gmail.com

Validate Print Help

Percentage BoQ

Tender Inviting Authority:

Name of Work: Development of Commercial Complex under O.C.S.P Nagpur, on Plot No 5 (DBFMS) model

Contract No:

Bidder Name :	PRAFULVED INFRA PVT LTD

PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allow enter the Bidder Name and Values only)

NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	NUMBER	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	Estimated Rate	TOTAL AMOUNT Without Taxes	TOTAL AMOUNT In Words
1	2	3	4	5	6	53.00	55
1	Development of Commercial Complex under O.C.S.P Nagpur, on Plot No 5 (DBFMS) modelr. **(For detailed BOQ please refer the uploaded tender document of this tender.)**	Item 1	1.00	nos	1115000000.00	1,11,50,00,000.00	INR One Hundred Eleven Crore Fifty Lakh Only
Total in Figures						1,11,50,00,000.00	INR One Hundred Eleven Crore Fifty Lakh Only
Quoted Rate in Figures				Excess (+)	0.22%	1,11,75,00,945.00	INR One Hundred Eleven Crore Seventy Five Lak Hundred & Forty Five Only
Quoted Rate in Words	INR One Hundred Eleven Crore Seventy Five Lakh Nine Hundred & Forty Five Only						

RESOLUTION

(37)

कार्यालय, नागपूर महानगरपालिका, नागपूर

(सचिवालय)

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१ नागपूर महानगरपालिकेच्या दिनांक २५/०१/२०२२ मंगळवार रोजी भरलेल्या सर्वसाधारण सभेच्या कार्यवृत्तातून घेतलेला उतारा

ठराव क्रमांक२२ ५/ वि.क्र.१०७ :- नागपूर येथे वर्धा रोड (Hotel Redision Blue) ते CRPF या भागात मौजा सोमलवाडा, खामला, भामटी, टाकळी व जयताळा या परीसरातील सलग मनपाच्या मालकीची ३०.४९ हेक्टर जागेवर ऑरेंज सीटी स्ट्रीट प्रकल्प स्वबळावर मनपा व्दारे उभारण्या बाबत व या अनुषंगाने Transjection Advisor ची नेमणुक करणे तथा पुर्व प्रकल्प व्यवस्थापकीय सल्लागार मे. हफीज कॉन्ट्रक्टर यांचा करारनामा सुधारीत करणे ई. आवश्यक कार्यवाहीचे अधिकार आयुक्त, मनपा यांना प्रदान करण्यास सभागूहाचे ठराव क्रमांक १२५दि. १६.१०.२०१७ अन्वये मंजुरी प्राप्त आहे.

{प्रकल्प विभाग}

सध्यास्थीतीत भुखंड क्रमांक १ वर खाजगी उदयोजकामार्फत भागीदारी तत्वावर काम करण्यासाठी निवीदा बोलावून त्याबाबतची प्रक्रीया करण्यात आली आहे. व संबधीत निवीदेस रु. ५५,५५,७०,०००/- चा प्रतीसाद प्राप्त झाला आहे.

त्याच धर्तीवर या प्रकल्पातील दुस-या चरणात भुखंड क्रमांक ५ यांचे विवरण खालील प्रमाणे आहे. त्यावर व्यापारी संकुलाचे खाजगी उदयोजकामार्फत भागीदारी तत्वावर (DBFOS)प्रकल्प राबविण्यास निवीदा बोलविण्याचा त्यातील अटी व शर्ती अंतीम करण्याचा ईतर संलग्न बाबी करण्याचे व त्या संबधीचा करारनामा करण्याचे अधिकार मा. आयुक्त, मनपा यांना प्रदान करण्याचा प्रश्न विचारात घेणे.

भुखंडाचे विवरण
भुखंड क्र. ५
भुखंडाचे क्षेत्रफळ - ७५३३.५९ चौ. मी.
उपलब्ध FSI - ४.९५ उपलब्ध Built up area— ३७२९१.२८ चौ. मी.
प्रस्तावित प्रकल्पाचे ढोबळ विवरण
व्यावसायीक संकुल किंवा तत्सम इमारत (Mix Use सह)
तळमजले - २(पार्कींग)
मुख्य इमारत मजले -G + ९

उपरोक्त प्रश्न सभागृहाने विचारात घेवून त्यास मंजूर मंजूरच्या आवाजाने एकमताने मान्यता प्रदान केली.

सत्य प्रतिलिपी

11/2/22

सहाय्यक अधिक्षक

समिती विभाग, म.न.पा. नागपूर.

कार्यालय, नागपूर महानगरपालिका, नागपूर
(सचिवालय)

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प्रस्तावना :-
{प्रकल्प विभाग}

ऑरेज सिटी स्ट्रीट प्रकल्पामधिल भुखंड क. 5 वरील बांधकाम खाजगी उदयोजकामार्फत भागीदारी तत्वावर करण्याकरीता निविदा बोलाविण्याच्या त्यासबंधिचा करारनामा इत्यादी करण्याचे अधिकार मा. आयुक्त यांना प्रदान करणेबाबच्या विषयास मा. सभाग्रहाच्या दि. 25.01.2022 च्या सभेमध्ये ठराव क. 225 अन्वये मंजूरी प्रदान करण्यात आली.

ठरावामध्ये मंजूर केल्याप्रमाणे निविदा बोलाविण्यानंतर केलेल्या कार्यवाहीचा अहवाल मा. आयुक्त/प्रशासक यांचे समक्ष ठेवण्यात येत आहे.

सदर कामाच्या कार्यान्वयनाकरीता प्रस्तावास मा. आयुक्त यांचेकडुन मान्यता प्रदान करण्यात आली आहे. त्यानुसार निविदा बोलाविण्यास केलेल्या कार्यवाहीचा अहवाल मा. आयुक्त/प्रशासनक यांचेकडे सादर करण्याचे नमुद आहे. त्यानुसार सदर माहिती ठेवण्यात येत आहे.

प्रकल्पाचे नाव :–ऑरेज सिटी स्ट्रीट प्रकल्पामधिल भुखंड क. 5 चा मिश्र वापर करण्याबाबत.

भुखंड क. 5 चा तपशिल येणे प्रमाणे

1) भुखंडाचे क्षेत्रफळ – 7533.60 चौ.मी.
2) विमानतळ प्राधिकरणाकडुन उंची करीता नाहरकत प्रमाणपत्र – 46.31 मी.
3) Permissible Built Up Area (FSI) – 2.75

या भुखंडाचा विकासाकरीता Design, Build, Finance, Operate & Sale (DBFOS) या तत्वावर निविदा पत्रे या प्रकल्पाचे सल्लागार आर्किटेक्ट हाफिज कान्ट्रक्टर यांच्या मार्फत सादर करण्यात आले. सदर निविदा प्रपत्रे म.न.पा. चे विधी अधिवक्ता ॲड श्री. कप्तान यांचेकडुन Legal Vetting करून घेण्यात आले. तसेच सदर प्रकाल्पातील मालमत्तेची Outright विकी करण्याचे नियोजित असून त्याप्रमाणे विकासकास तसे अधिकार देण्यात आलेले आहे. त्यानुसार म.न.पा. तर्फे E-Tender I.D. No.2022 NMCN_828213_1 दि. 05.08.2022 ला निविदा ऑनलाईन प्रकाशित करण्यात आल्या. या प्रकल्पाची पूर्व निविदा बैठक दि. 22.08.2022 नियोजित होती. तसेच याची बिड सबमिशन डेट दि. 15.09.2022 होती.

प्रथम निविदेवेळी पूर्ण निविदा बैठकित कोणतीही निविदाकार उपस्थित झाले नाही. तसचे प्रथम निविदे दरम्यान कोणत्याही निविदाकाराने निविदा सादर केलेली नव्हती. उक्त परिस्थतीत या प्रकल्पाची द्वितीय निविदा काढण्याचा निर्णय म.न.पा. तर्फे घेण्यात आला. त्यानुसार द्वितीय निविदा क. E-Tender I.D. No.02/EE/(P)/2022 I.D.2022 NMCN_828213_2 दि. 08.10.2022 प्रमाणे प्रकाशित करण्यात आल्या. त्यानुसार पूर्व निविदा बैठक दि. 29.11.2022 ला आयोजित करण्यात आली होती. या निविदेची निविदा स्विकृती दि. 23.12.2022 ही होती. निविदा अटीनुसार कमीत कमी रू. 111.50 कोटी निम्नतम देकाराच्या निविदा मागविण्यात आल्या त्यामध्ये खालीलप्रमाणे एक निविदा प्राप्त झाली. ती येणेप्रमाणे.

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मे. प्रफुलवेद इन्फ्रा प्रा.लि.

वरील प्राप्त निविदेची या कामाच्या PMC द्वारे तांत्रिक पडताळणी केली असता मे. प्रफुलवेद इन्फ्रा प्रा.लि. यांची निविदा तांत्रिक पात्रता पूर्ण करीत असल्याने त्यांना पात्र (Qualified) करण्यात आले.

या पात्र निविदेमध्ये एकच निविदा सादर असल्यामुळे महाराष्ट्र शासन निर्णय दि. 27.09.2018 मधील कलम 4.3 अन्वये या कामाची वित्तीय निविदा दि. 28.03.2023 ला मा. आयुक्त यांचे आदेशान्वये उघडण्यात आली. त्याप्रमाणे प्राप्त महत्तम निविदेचे विवरण पुढील प्रमाणे आहे.

अ.क.	निविदाकाराचे नाव	निविदा देकार	शेरा
1	मे. प्रफुलवेद इन्फ्रा प्रा. ली.	रू. 111,7500,945/-	HI

उक्त निविदेने प्राप्त महत्तम निविदाकाराचे नाव :- मे. प्रफुलवेद इन्फ्रा प्रा. ली.

प्राप्त निविदा राशी रू. 111,7500,945/-

अश्या महत्तम प्राप्त झालेल्या निविदाकार मे. प्रफुलवेद इन्फ्रा प्रा. ली. यांची देकार राशी रू. 111,7500,945/- ची निविदा मंजूरीस्तव विचारात घेणे.

विकासकाला अफ्रंड लॅन्ड प्रिमियम रू. 11.50 कोटी निश्चीत करण्यात आले. जे खालील नमुद केल्याप्रमाणे हप्त्यामध्ये महानगरपालिकेत भरावयाचे आहे. प्रभावी तारखेपासून 30 दिवसाच्या आत रू. 2.00 कोटी व उर्वरित 5 समान रू. 1.90 कोटी प्रति हप्ते पोस्ट डेटेड चेकद्वारे रू. 9.50 कोटीचे शिल्लक ठेवा प्रभावी तारखेपासून 9 महिन्याच्या आत जमा करावे लागतील.

2) उर्वरित रकमेचे भुगतान खालीलप्रमाणे राहील.

अ.क.	व्यावसायीक इमारतीची करण्यात आलेली विकी टक्केवारी मध्ये	विकासकाने मनपाला करावयाचे भुगतान टक्केवारी मध्ये
1	20%	25%
2	45%	50%
3	70%	75%
4	80%	100%

विकासकाला करारनाम्याच्या तारखेपासून 42 महिन्याच्या आत संपूर्ण बांधकाम पुर्ण करावे लागेल.

टिप :- विकासाद्वारे मनपाला दयावयाच्या रकमेचा तपशील खालीलप्रमाणे प्रमाणे.

1) विकासकाला effective date चे पत्र प्राप्त झाल्याच्या तारखेपासून 30 दिवसाचे आत अग्रीम भुगतान रू. 11.50 कोटी पैकी 2.00 कोटी मनपाच्या खात्यात जमा करावे लागतील व उर्वरित 5 समान हप्तेमध्ये रू. 1.90 कोटी प्रति हप्ते पोस्ट डेटेड चेकद्वारे प्रभावी तारखेपासून 9 महीन्याच्या आत जमा करावे लागतील.

2) उर्वरित रकमेचे भुगतान खालीलप्रमाणे राहील.

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अ.क.	मेट्रोमॉलच्या भागाची करण्यात आलेली विकी टक्केवारी मध्ये	विकासकाने मनपाला करावयाचे भुगतान टक्केवारी मध्ये
1	20%	25%
2	45%	50%
3	70%	75%
4	80%	100%

विकासकाला करारनाम्याच्या तारखेपासून 42 महिन्याच्या आत संपूर्ण बांधकाम पुर्ण करावे लागेल.

3) सविस्तर टिपणी व दस्ताऐवज नस्ती मध्ये उपलब्ध आहे.

पारीत ठराव

ठराव क्रमांक :-३५० /मनपा/प्रशासक **दिनांक :- १७/०५/2023**

महाराष्ट्र शासन नगरविकास विभागाकडील शासन आदेश क्रमांक एमसीओ-२०२०/प्र.क्र. ७१ (भाग-२) /नवि-१४ दिनांक ०३/०३/२०२२ अन्वये महाराष्ट्र महानगरपालिका अधिनियमातील तरतुदी व विशेषत: कलम ४५२ अ च्या (१ अ) व (१ब) मधील तरतूदीनुसार दिनांक ०४-०३-२०२२ अन्वये मला प्राप्त झालेल्या अधिकारानुसार कार्यकारी अभियंता, प्रकल्प विभाग, यांनी वरील प्रमाणे प्रस्तावीत केल्यानुसार ऑरेज सिटी स्ट्रीट प्रकल्पामधिल भुखंड क. 5 वरील बांधकाम खाजगी उदयोजकामार्फत भागीदारी तत्वावर करण्याकरीता निविदा बोलाविण्याच्या त्यासबंधिचा करारनामा इत्यादी करण्याचे अधिकार मा. आयुक्त यांना प्रदान करणेबाबच्या विषयास मा. सभाग्रहाच्या दि. 25. 01.2022 च्या सभेमध्ये ठराव क. 225 अन्वये मंजूरी प्रदान करण्यात आली.

ठरावामध्ये मंजूर केल्याप्रमाणे निविदा बोलाविण्यानंतर केलेल्या कार्यवाहीचा अहवाल मा. आयुक्त/प्रशासक यांचे समक्ष ठेवण्यात येत आहे.

सदर कामाच्या कार्यान्वयनाकरीता प्रस्तावास मा. आयुक्त यांचेकडुन मान्यता प्रदान करण्यात आली आहे. त्यानुसार निविदा बोलाविण्यास केलेल्या कार्यवाहीचा अहवाल मा. आयुक्त/प्रशासनक यांचेकडे सादर करण्याचे नमुद आहे. त्यानुसार सदर माहिती ठेवण्यात येत आहे.

प्रकल्पाचे नाव :–ऑरेज सिटी स्ट्रीट प्रकल्पामधिल भुखंड क. 5 चा मिश्र वापर करण्याबाबत.

भुखंड क. 5 चा तपशिल येणे प्रमाणे

1) भुखंडाचे क्षेत्रफळ – 7533.60 चौ.मी.
2) विमानतळ प्राधिकरणाकडुन उंची करीता नाहरकत प्रमाणपत्र – 46.31 मी.
3) Permissible Built Up Area (FSI) – 2.75

या भुखंडाचा विकासाकरीता Design, Build, Finance, Operate & Sale (DBFOS) या तत्वावर निविदा पत्रे या प्रकल्पाचे सल्लागार आर्किटेक्ट हाफिज कान्ट्रक्टर यांच्या मार्फत सादर करण्यात आले. सदर निविदा प्रपत्रे म.न.पा. चे विधी अधिवक्ता ॲड श्री. कप्तान यांचेकडुन Legal Vetting करून घेण्यात आले. तसेच सदर प्रकाल्पातील मालमत्तेची Outright विकी करण्याचे नियोजित असून त्याप्रमाणे विकासकास तसे अधिकार देण्यात आलेले आहे. त्यानुसार म.न.पा. तर्फे E-Tender I.D. No.2022 NMCN_828213_1 दि. 05.08.2022 ला निविदा ऑनलाईन प्रकाशित करण्यात आल्या. या प्रकल्पाची पूर्व निविदा बैठक दि. 22.08.2022 नियोजित होती. तसेच याची बिड सबमिशन डेट दि. 15.09.2022 होती.

प्रथम निविदेवेळी पूर्ण निविदा बैठकित कोणतीही निविदाकार उपस्थित झाले नाही. तसचे प्रथम निविदे दरम्यान कोणत्याही निविदाकाराने निविदा सादर केलेली नव्हती. उक्त परिस्थतीत या प्रकल्पाची द्वितीय निविदा काढण्याचा निर्णय म.न.पा. तर्फे घेण्यात आला. त्यानुसार द्वितीय निविदा क. E-Tender I.D. No.02/EE/(P)/2022 I.D.2022 NMCN_828213_2 दि. 08.10.2022 प्रमाणे प्रकाशित करण्यात आल्या. त्यानुसार पूर्व निविदा बैठक दि. 29.11.2022 ला आयोजित करण्यात आली होती. या निविदेची निविदा स्विकृती दि. 23.12.2022 ही होती. निविदा अटीनुसार कमीत कमी रू. 111.50 कोटी निम्नतम देकाराच्या निविदा मागविण्यात आल्या त्यामध्ये खालीलप्रमाणे एक निविदा प्राप्त झाली. ती येणेप्रमाणे.

मे. प्रफुलवेद इन्फ्रा प्रा.लि.

वरील प्राप्त निविदेची या कामाच्या PMC द्वारे तांत्रिक पडताळणी केली असता मे. प्रफुलवेद इन्फ्रा प्रा.लि. यांची निविदा तांत्रिक पात्रता पूर्ण करीत असल्याने त्यांना पात्र (Qualified) करण्यात आले.

या पात्र निविदेमध्ये एकच निविदा सादर असल्यामुळे महाराष्ट्र शासन निर्णय दि. 27.09.2018 मधील कलम 4.3 अन्वये या कामाची वित्तीय निविदा दि. 28.03.2023 ल. मा. आयुक्त यांचे आदेशान्वये उघडण्यात आली. त्याप्रमाणे प्राप्त महत्तम निविदेचे विवरण पुढील प्रमाणे आहे.

अ.क.	निविदाकाराचे नाव	निविदा देकार	शेरा
1	मे. प्रफुलवेद इन्फ्रा प्रा. ली.	रू. 111,7500,945/-	HI

उक्त निविदेने प्राप्त महत्तम निविदाकाराचे नाव :- मे. प्रफुलवेद इन्फ्रा प्रा. ली.
प्राप्त निविदा राशी रू. 111,7500,945/-

अश्या महत्तम प्राप्त झालेल्या निविदाकार मे. प्रफुलवेद इन्फ्रा प्रा. ली. यांची देकार राशी रू. 111,7500,945/- ची निविदा मंजूरीस्तव विचारात घेणे.

विकासकाला अफंड लॅन्ड प्रिमियम रू. 11.50 कोटी निश्चीत करण्यात आले. जे खालील नमुद केल्याप्रमाणे हप्त्यामध्ये महानगरपालिकेत भरावयाचे आहे. प्रभावी तारखेपासून 30 दिवसाच्या आत रू. 2.00 कोटी व उर्वरित 5 समान रू. 1.90 कोटी प्रति हप्ते पोस्ट डेटेड चेकद्वारे रू. 9.50 कोटीचे शिल्लक ठेवा प्रभावी तारखेपासून 9 महिन्याच्या आत जमा करावे लागतील.

2) उर्वरित रकमेचे भुगतान खालीलप्रमाणे राहील.

अ.क.	व्यावसायीक इमारतीची करण्यात आलेली विक्री टक्केवारी मध्ये	विकासकाने मनपाला करावयाचे भुगतान टक्केवारी मध्ये
1	20%	25%
2	45%	50%
3	70%	75%
4	80%	100%

विकासकाला करारनाम्याच्या तारखेपासून 42 महिन्याच्या आत संपूर्ण बांधकाम पुर्ण करावे लागेल.

उक्त प्रस्तावास मान्यता प्रदान करण्यात येत आहे.

21/5/23

राधाकृष्णन बी. (भा.प्र.से.)
प्रशासक
नागपूर महानगरपालिका, नागपूर

CONSORTIUM AGREEMENT AND FORMATION OF LLP

NAGPUR MUNICIPAL CORPORATION

Mahanagarpalika Marg, Civil Lines, Nagpur – 440 001
Ph. 0712-2542831, Email Id: eeprojectnmc@gmail.com Fax No. – 0712 - 2561584
(OFFICE OF THE EXECUTIVE ENGINEER (PROJECT)

No. 23 /EE(P) **Date :-** 22 /06 /2023

To,
Prafulved Infra and Praful Deshmukh Associates 5 LLP
501, 14A, Shrikrishna Residency,
Dharampeth, Nagpur-440010.

Sub: Development of mix use Commercial Complex Project on Plot No. 5 of Orange City Street Project of NMC at Nagpur on Design, Build, Finance, Maintain and Sale mode Regarding formation of Special Purpose Vehicle (SPV) for the execution of the OCSP Plot No. 5 Project.

Ref:- 1. Letter of Award (LoA) No. 10/EE(P)/2023 dated 26.4.2023 issued by NMC.
2. Your Letter dated 5.6.2023.
3. Your Letter dated 21.6.2023.

Dear Sir

The bid of above subject work was submitted by you in consortium of development of mix use Commercial Complex Project on Plot No. 5 of Orange City Street Project of NMC at Nagpur on Design, Build, Finance, Maintain and Sale mode. The shareholding pattern as per the executed Consortium Agreement submitted during the bidding process is as follows:

- Prafulved Infra Pvt. Ltd.: 70%
- Praful Narendra Deshmukh (Proprietor) : 30%

As per Clause 6.2.2 of the Request for Proposal (RFP) document, it is mentioned that the H1 Bidder has the option of formation of SPV for execution of the project.

In line with the above Clause and the LoA issued by NMC, you have reported vide letter of reference 3 of formation of the SPV as name & style ***"Prafulved Infra and Praful Deshmukh Associates 5 LLP".***

The above name of the SPV formed by you is approved by NMC and shall replace the name of the consortium for all future correspondence and for execution of the Development Agreement subject to the following:

1. The shareholding pattern of the SPV/LLP Agreement is same as the shareholding pattern of the Consortium Agreement submitted during the bidding process.
2. The notarized copy of the executed LLP Agreement between the consortium partners is submitted to NMC for necessary due diligence and record.
3. The notarized copy of the MCA Registration documents is submitted to NMC for necessary due diligence and record.

We understand that the process of registration of the SPV and all related documents such as the PAN Card, TAN No., GST registration, Aadhar registration, Bank/Escrow Account opening etc. shall take some additional time and hence we agree to extend the compliance dates as follows:

Date for submission of the Performance Bank Guarantee shall be within 20 days of issue the letter that is 12th July 2023

Hence for necessary compliance at the earliest.

Executive Engineer (Project)
Nagpur Municipal Corporation

Copy To :- 1) Hon'ble Chief Engineer, NMC, Nagpur
2) Supdt. Engineer, NMC, Nagpur

CHALLAN
MTR Form Number-6

GRN	MH003309082202324P	BARCODE		Date	08/06/2023-17:35:33	Form ID	

Department	Directorate Of Accounts And Treasuries	Payer Details	
Type of Payment	Stamps Non-Judicial Sale of Non Judicial Stamps SoS	TAX ID / TAN (If Any)	
		PAN No.(If Applicable)	ABDFP7844F
Office Name	NAGPUR A T O Stamps	Full Name	PRAFULVED INFRA AND PRAFUL DESHMUKH ASSOCIATES 5 LLP
Location	NAGPUR		
Year	2023-2024 One Time	Flat/Block No. Premises/Building	

Account Head Details	Amount In Rs.
0030045501 Sale of Stamps	10000.00
Total	10,000.00

Road/Street	
Area/Locality	
Town/City/District	
PIN	
Remarks (If Any)	LLP Agreement
Amount In Words	Ten Thousand Rupees Only

Payment Details	SBIEPAY PAYMENT GATEWAY	FOR USE IN RECEIVING BANK			
Cheque-DD Details		Bank CIN	Ref. No.	10000502023060810386	3780098802139
Cheque/DD No.		Bank Date	RBI Date	08/06/2023-17:36:33	Not Verified with RBI
Name of Bank		Bank-Branch		SBIEPAY PAYMENT GATEWAY	
Name of Branch		Scroll No. , Date		Not Verified with Scroll	

Department ID :

Mobile No. : 8378985611

Print Date 08-06-2023 06:34:24

LLP AGREEMENT

(As per Section 23(4) of LLP Act, 2008)

This Agreement of LLP made at Nagpur ON this **8th June 2023** BETWEEN

1. **Prafulved Infra Private Limited**, having Registered office at F. No. 501, Shrikrishna Residency, Dharampeth, Nagpur-40010, Maharashtra, **PAN – AAKCP2972M, CIN – U45200MH2019PTC319415**, through its Authorized Representative/ Nominee/ Director **Rahul Rajendra Deshmukh**, Resident of Nagpur-40010

(which expression shall, unless it is repugnant to the subject or context thereof, include their legal heirs, successors, nominees and permitted assignees and hereinafter called the FIRST PARTY, and

2. **Praful Narendra Deshmukh**, Residing at F. No. 501, Shrikrishna Residency, Dharampeth, Nagpur-40010, Maharashtra, **PAN – AHWPD6985A, AADHAR – 2181 7203 8209**, which expression shall, unless it is repugnant to subject or context thereof, include their legal heirs, successors, nominees and permitted assignees and hereinafter called the SECOND PARTY,

(THE FIRST & SECOND PARTY SHALL BE COLLECTIVELY REFERRED TO AS PARTNERS)

Contd. .

PRAFULVED INFRA PVT LTD

WHEREAS the First Party is Name of 1st Partner **(COMPANY)** WHEREAS the Second Party is Name of 2nd Partner **(INDIVIDUAL)**

AND WHEREAS The FIRST, SECOND Party were indulged in a joint venture in the name and styled as "PRAFULVED INFRA PRIVATE LIMITED & PRAFUL DESHMUKH (Prop.) JV." for the purpose of preparing and submitting tenders for the Development work of "Mixed Use Commercial Complex at NMC ORANGE CITY STREET PROJECT Plot No. 5 (Near Khamla Bazar Square) on Design-Build-Finance-Operate and Sale (DBFOS) basis," through Nagpur Municipal Corporation, Nagpur (Maharashtra).

AND WHEREAS the tender was Awarded for the Development work of "*Mixed Use Commercial Complex at NMC ORANGE CITY STREET PROJECT Plot No. 5 (Near Khamla Bazar Square) on Design-Build-Finance-Operate and Sale (DBFOS) basis*," through Nagpur Municipal Corporation, Nagpur (Maharashtra) to the joint venture as per LOA dated 26.04.2023.

AND WHEREAS for development work of *NMC ORANGE CITY STREET PROJECT on Plot No. 5,* the FIRST, SECOND Party is to form ***Special Purpose Vehicle (SPV)*** as per consortium Agreement dated 20.12.2022.

AND WHEREAS now they are intending to form **SPV** in forming a Limited Liability Partnership under the Limited Liability Partnership Act 2008 and that they intend to write down the terms and conditions of the said formation and

IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS :

1. A Limited Liability Partnership shall be carried on in the name and style of **Prafulved Infra & Praful Deshmukh Associates 5 LLP**.

   (Herein after referred to and called as "**the LLP Firm**")

   The LLP Firm constituted under the Deeds as amended time to time and shall be deemed to be have commenced on the **5th June 2023**.

2. **The LLP Firm** shall have its registered office at **F. No. 501, Shrikrishna Residency, Dharampeth, Nagpur-40010, Maharashtra** and / or at such other place or places, as shall be agreed to by the majority of the partners from time to time.

3. The Contribution of the LLP Firm shall be Rs 10,00,000/- (Rupees Ten Lakhs Only) which shall be contributed by the partners in the following proportions.

   - First Party 70% i.e. Rs 7,00,000/- (Rupees Seven Lakhs only)
   - Second Party 30% i.e. Rs 3,00,000/- (Rupees Three Lakhs only)
   - The further Contribution if any required by the LLP Firm shall be brought by the partners in their profit sharing ratio.

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4. The LLP Firm shall have a common seal to be affixed on documents as defined by partners under the signature of any of the Designated Partners.

5. The business of the LLP Firm shall be of Development work of "*Mixed Use Commercial Complex at NMC ORANGE CITY STREET PROJECT Plot No. 5 (Near Khamla Bazar Square) on Design-Build-Finance-Operate and Sale (DBFOS) basis.*

6. That the immovable properties purchased by the LLP Firm shall be clear, marketable and free from all encumbrances.

7. The net profits of the LLP Firm arrived at after providing for payment of remuneration to the working partners and interest to partners on the loan given by them shall be divided in the following proportions: To the said Name of 1st Partner 70%, To the said Name of 2nd Partner 30%.

8. The losses of the LLP Firm including loss of capital, if any, shall be borne and paid by the partners in the following proportions: To the said Name of 1st Partner 70% To the said Name of 2nd Partner 30%.

9. The bankers of the LLP Firm shall be such banks as the designated partners of LLP firm may from time to time unanimously agree upon. And all such Bank accounts shall be operated by Mr Praful Narendra Deshmukh individually.

10. Remuneration to the working partners of the LLP Firm will be given as much mutually decided by all the working partners as per the unanimous resolution passed by the partners depend upon efforts and time given by the partner. However, salary limit may be further increased or decrease as much mutually decided by all the working partners in the meeting, subject to maximum U/s 40 (b) as amended as per Income Tax Act.

11. Both the designated partners hereto shall have the rights, title and interest in all the assets and properties in the said the LLP Firm in the proportion of their Contribution.

12. Every partner has a right to have access to and to inspect and copy any books of the LLP Firm, Each of the parties hereto shall be entitled to carry on their own, separate and independent business as hitherto they might be doing or they may hereafter do as they deem fit and proper and the LLP Firm shall have no objection thereto provided that the said designated partner has intimated the facts to the LLP Firm.

13. If any designated partner shall advance any sum of money to the LLP Firm over and above their due contribution to capital, the same shall be a debt due from the LLP Firm to the partner advancing the same and shall carry simple interest at the rate of 12% per annum or any other rate decided by the partners unanimously.

14. The LLP Firm shall have perpetual succession. So, death, retirement or insolvency of any partner shall not dissolve the LLP Firm.

PRAFUL INFRA PVT LTD NAGPUR

Contd. .

15. Each Partner shall be just and faithful to the other partners in all transactions relating to the LLP Firm.

16. Each partner shall render true accounts and full information of all things affecting the limited liability partnership to any partner or his legal representatives.

17. The meeting of designated partners may be called by giving at least 1-day notice. In case of any urgent meeting is called the notice requirement is to be ratified by all the Partners.

18. The meeting of Partners shall ordinarily be held at the registered office of the LLP Firm or any other place as per the convenience of partners.

19. The LLP Firm shall ensure that decisions taken by it are recorded in the minutes within 30 days of taking such decisions and are kept and maintained at the registered office of The LLP Firm.

20. The Designated Partners shall be responsible for the doing of all acts, matters and things as are required to be done by the limited liability partnership in respect of compliance of the provisions of this Act including filing of any document, return, statement and the like report according to the provisions of Limited Liability Partnership Act, 2008.

21. The LLP Firm shall indemnify and defend its partners and other officers from and against any and all liability in connection with claims, actions and proceedings (regardless of the outcome), judgment, loss or settlement thereof, whether civil or criminal, arising out of or resulting from their respective performances as partners and officers of the LLP Firm, except for the gross negligence or willful misconduct of the partner or officer seeking indemnification. Cessation of Existing Partners

22. The LLP Firm shall be ipso-facto terminate after completion of Development work of Mixed Use Commercial Complex at NMC ORANGE CITY STREET PROJECT on Plot No. 5 on Design-Build-Finance-Operate and Sale (DBFOS) basis, further the termination after completing projects shall be as per the provisions of the Limited Liability Partnership Act 2008.

23. The books of accounts of the LLP firm shall be kept at the registered office for the reference of all the designated partners.

24. The accounting year of the LLP Firm shall be from 1st April of the year to 31st March of the subsequent year. The first accounting year shall be from the date of commencement of the LLP Firm till 31st March of the subsequent year.

25. All disputes between the partners or between the Partner and the LLP Firm arising out of the limited liability partnership agreement which cannot be resolved in terms of this agreement shall be referred for arbitration as per the provisions of the Arbitration and Conciliation Act, 1996 (26 of 1996).

PRAFUL INFRA PVT LTD NAGPUR

Contd. .

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In witness whereof, the FIRST PARTY and the SECOND PARTY have executed this Agreement Deed at the Nagpur, on the 8th day of June, 2023 as first above written in the presence of the following witnesses. Signed and delivered by the For and on behalf SIGNED AND DELIVERED by the within-

PRAFULVED INFRA PVT LTD NAGPUR

Named **FIRST PARTY**
RAHULRAJENDRA DESHMUKH
FOR PRAFULVED INFRA PRIVATE LIMITED
In the presence of

SIGNED AND DELIVERED by the within-
Named **SECOND PARTY**
PRAFUL NARENDRA DESHMUKH
In the presence of

In the presence of Witnesses:

Name Priyanka Praful Deshmukh
Address Shankar Nagar, Nagpur - 440010
Signature Flat No. 501, Plot No. 44A, Shri Krishna, Residency, Khare town, Dharampeth, Dahake Layout, MH, IN.
OCC: Business.

In the presence of Witnesses:
Name Nilesh Umesharao Pandit
Address Itwari, Nagpur - 440002
Signature House No. 666, Santi Road, Near Itwari High School, MH, IN.
OCC: Service.

Identity Proof of Party No.1


आयकर विभाग
INCOME TAX DEPARTMENT
भारत सरकार
GOVT. OF INDIA
स्थायी लेखा संख्या कार्ड
Permanent Account Number Card
AAKCP2972M
नाम / Name
PRAFULVED INFRA PRIVATE LIMITED
निगमन/गठन की तारीख
Date of Incorporation/Formation
11/01/2019

Stamp
PRAFULVED INFRA PVT. LTD. NAGPUR
KRD

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Identity Proof of Authorized Representative of Party No-1

आयकर विभाग भारत सरका

INCOME TAX DEPARTMENT GOVT. OF INDI.

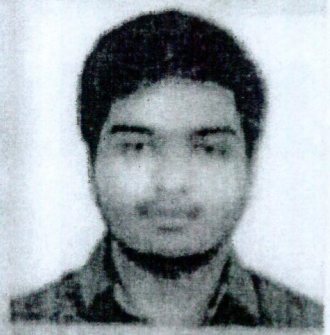
RAHUL RAJENDRA DESHMUKH

RAJENDRA NILKHANTRAO DESHMUKH

18/05/1994

Permanent Account Number

CGHPD5457R



Signature

RRD

Address Proof of Authorized Representative of Party No. 1



आधार

भारतीय विशिष्ट ओळख प्राधिकरण

भारत सरकार

Unique Identification Authority of India

Government of India

नोंदणी क्रमांक/Enrolment No.: 1190/10430/04195

To
Rahul Rajendra Deshmukh
(राहुल राजेंद्र देशमुख)
Plot No. 115 Pnb Apartment
Near Water Tank
Laxmi Nagar
Nagpur
Nagpur
Maharashtra - 440022

Date: 17/08/2011

Ref. No : 00015574-00068476-00068603-

UB 04062885 9 IN

आपला आधार क्रमांक / Your Aadhaar No. :

2774 1827 2621

आधार – सामान्य माणसाचा अधिकार

भारत सरकार

GOVERNMENT OF INDIA

राहुल राजेंद्र देशमुख

Rahul Rajendra Deshmukh

जन्म वर्ष / Year of Birth : 1994

पुरुष / Male

2774 1827 2621

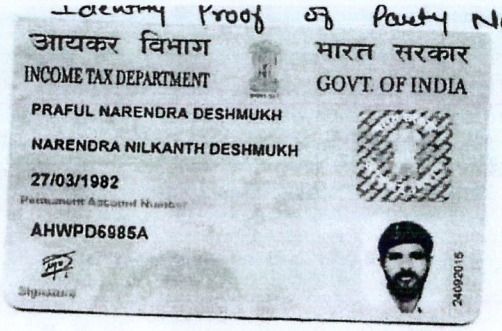
आधार – सामान्य माणसाचा अधिकार

ARD

169

881 169

Identity Proof of Party No. 2


आयकर विभाग
INCOME TAX DEPARTMENT
भारत सरकार
GOVT. OF INDIA
PRAFUL NARENDRA DESHMUKH
NARENDRA NILKANTH DESHMUKH
27/03/1982
Permanent Account Number
AHWPD6985A
Signature
24092015

APD

Address Proof of Party No. 2

आधार

भारत सरकार

Unique Identification Authority of India

Government of India

नोंदणीयाचा क्रमांक / Enrollment No 1104/10235/03804

To

Pratul Narendra Deshmukh

S/O Narendra Deshmukh

FLAT NO 501 PLOT NO 14ASHRI KRISHANA

RESIDENCY

KHARE TOWN, DHARAMPETH DAHAKE LAY OUT

Shankar Nagar

Shankar Nagar Nagpur Nagpur

Maharashtra 440010

9804078999

25/01/2013

Ref 709 / 17B / 772870 / 772893 / P

SH205929743DE

आपला आधार क्रमांक / Your Aadhaar No. :

2181 7203 8209

आधार – सामान्य माणसाचा अधिकार

भारत सरकार

GOVERNMENT OF INDIA



Pratul Narendra Deshmukh

जन्म वर्ष / Year of Birth 1982

पुरुष / Male

2181 7203 8209

आधार – सामान्य माणसाचा अधिकार

PD

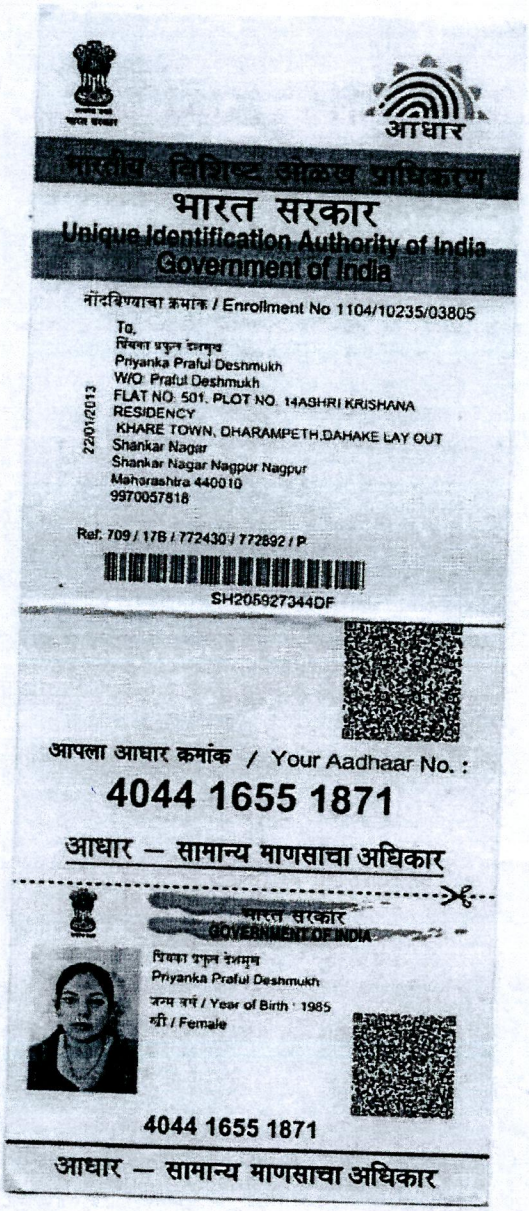
171

171

Witness 1 Identity Proof



Witness 1 Address Proof



भारत सरकार
Unique Identification Authority of India
Government of India

नोंदणीचा क्रमांक / Enrollment No 1104/10235/03805

To,
प्रियंका प्रफुल देशमुख
Priyanka Praful Deshmukh
W/O: Praful Deshmukh
FLAT NO: 501, PLOT NO. 14ASHRI KRISHANA RESIDENCY
KHARE TOWN, DHARAMPETH,DAHAKE LAY OUT
Shankar Nagar
Shankar Nagar Nagpur Nagpur
Maharashtra 440010
9970057818

22/01/2013

Ref: 709 / 17B / 772430 / 772892 / P

SH205927344DF

आपला आधार क्रमांक / Your Aadhaar No. :
4044 1655 1871

आधार – सामान्य माणसाचा अधिकार

भारत सरकार
GOVERNMENT OF INDIA

प्रियंका प्रफुल देशमुख
Priyanka Praful Deshmukh
जन्म वर्ष / Year of Birth : 1985
स्त्री / Female

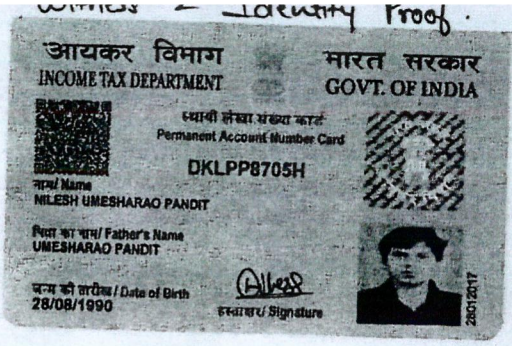
4044 1655 1871

आधार – सामान्य माणसाचा अधिकार

173

173

Identity Proof.


आयकर विभाग
INCOME TAX DEPARTMENT
भारत सरकार
GOVT. OF INDIA
स्थायी लेखा संख्या कार्ड
Permanent Account Number Card
DKLPP8705H
नाम/ Name
NILESH UMESHARAO PANDIT
पिता का नाम/ Father's Name
UMESHARAO PANDIT
जन्म की तारीख/ Date of Birth
28/08/1990
हस्ताक्षर/ Signature
28012017

Annexure 2 Address Proof.



भारत सरकार
GOVERNMENT OF INDIA

निलेश उमेशराव पंडित
Nilesh Umesharao Pandit
जन्म तिथि / DOB: 28/08/1990
पुरुष / MALE
Mobile No.: 9975622736

9833 6679 4743

मेरा आधार, मेरी पहचान



भारतीय विशिष्ट पहचान प्राधिकरण
UNIQUE IDENTIFICATION AUTHORITY OF INDIA

आधार

पता:
S/O उमेशराव पंडित, घर क्र. ६६६, संती रोड, इतवारी हाय स्कूल जवळ, इतवारी, नागपुर, नागपुर, महाराष्ट्र - 440002

Address:
S/O Umesharao Pandit, House No. 666, Santi Road, Near Itwari High School, Itwari, Nagpur, Nagpur, Maharashtra - 440002

Download Date: 23/04/2018

QR Code with Photograph

1947 help@uidai.gov.in www.uidai.gov.in P.O. Box No.1947, Bengaluru-560 001

175

175

सत्यमेव जयते

GOVERNMENT OF INDIA

MINISTRY OF CORPORATE AFFAIRS

Central Registration Centre

Form 16

[Refer Rule 11(3) of the Limited Liability Partnership Rules,2009]

Certificate of Incorporation

LLP Identification Number: **ACB-4918**

The Permanent Account Number (PAN) of the LLP is **ABDFP7844F***

The Tax Deduction and Collection Account Number (TAN) of the LLP is **NGPP08458C***

It is hereby certified that PRAFULVED INFRA & PRAFUL DESHMUKH ASSOCIATES 5 LLP is incorporated pursuant to section 12(1) of the Limited Liability Partnership Act 2008.

Given under my hand at Manesar this FIFTH day of JUNE TWO THOUSAND TWENTY THREE

Document certified by DS MINISTRY OF CORPORATE AFFAIRS 10 <roc.crc@mca.gov.in>.

Digitally signed by DS MINISTRY OF CORPORATE AFFAIRS 10
Date: 2023.06.07 02:03:29 IST

Kuldeep Singh
Assistant Registrar of Companies/ Deputy Registrar of Companies/ Registrar of Companies
For and on behalf of the Jurisdictional Registrar of Companies
Registrar of Companies
Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the LLP on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the LLP can be verified on mca.gov.in

Mailing Address as per record available in Registrar of Companies office:
PRAFULVED INFRA & PRAFUL DESHMUKH ASSOCIATES 5 LLP

F No. 501, Shrikrishna,Residency, Dharampeth,Giripeth,Shankar Nagar Police Station,Nagpur,Nagpur-440010,Maharashtra,India

*as issued by Income tax Department

आयकर विभाग INCOME TAX DEPARTMENT

सत्यमेव जयते

भारत सरकार GOVT. OF INDIA

ई– स्थायी लेखा संख्या कार्ड
e - Permanent Account Number (e-PAN) Card

ABDFP7844F

नाम / Name	PRAFULVED INFRA & PRAFUL DESHMUKH ASSOCIATES 5 LLP
निगमन/गठन की तारीख Date of Incorporation / Formation	05/06/2023

Signature valid

Digitally signed by
Income Tax Dept
Date: 2023.06.06 07:23:40 IST

- ✓ Permanent Account Number (PAN) facilitate Income Tax Department linking of various documents, including payment of taxes, assessment, tax demand tax arrears, matching of information and easy maintenance & retrieval of electronic information etc. relating to a taxpayer.
  स्थायी लेखा संख्या (पैन) एक करदाता से संबंधित विभिन्न दस्तावेजों को जोड़ने में आयकर विभाग को सहायक होता है, जिसमें करों के भुगतान, आकलन, कर मांग, टैक्स बकाया, सूचना के मिलान और इलक्ट्रॉनिक जानकारी का आसान रखरखाव व बहाली आदि भी शामिल है।
- ✓ Quoting of PAN is now mandatory for several transactions specified under Income Tax Act, 1961 (Refer Rule 114B of Income Tax Rules, 1962)
  आयकर अधिनियम, 1961 के तहत निर्दिष्ट कई लेनदेन के लिए स्थायी लेखा संख्या (पैन) का उल्लेख अब अनिवार्य है (आयकर नियम, 1962 के नियम 114B, का संदर्भ लें)
- ✓ Possessing or using more than one PAN is against the law & may attract penalty of upto Rs. 10,000.
  एक से अधिक स्थायी लेखा संख्या (पैन) का रखना या उपयोग करना, कानून के विरुद्ध है और इसके लिए 10,000 रुपये तक का दंड लगाया जा सकता है।
- ✓ The PAN Card enclosed contains Enhanced QR Code which is readable by a specific Android Mobile App. Keyword to search this specific Mobile App on Google Play Store is "Enhanced QR Code Reader for PAN Card.
  संलग्न पैन कार्ड में एनहान्स क्यूआर कोड शामिल है जो एक विशिष्ट एंड्रॉइड मोबाइल ऐप द्वारा पठनीय है। Google Play Store पर इस विशिष्ट मोबाइल ऐप को खोजने के लिए कीवर्ड "Enhanced QR Code Reader for PAN Card" है।

Cut

आयकर विभाग
INCOME TAX DEPARTMENT

भारत सरकार
GOVT. OF INDIA

स्थायी लेखा संख्या कार्ड
Permanent Account Number Card

ABDFP7844F

नाम / Name
PRAFULVED INFRA & PRAFUL DESHMUKH ASSOCIATES 5 LLP

निगमन/गठन की तारीख
Date of Incorporation/Formation
05/06/2023

Fold

इस कार्ड के खोने/पाने पर कृपया सूचित करें/लौटाएं:
आयकर पैन सेवा इकाई, प्रोटीयन ईगव टेक्नोलॉजीज़ लिमिटेड
(पूर्व में एनएसडीएल ई-गवर्नेंस इंफ्रास्ट्रक्चर लिमिटेड)
चौथी मंजिल, सफायर चैंबर,
बानेर रोड, बानेर,
पुणे - ४११०४५

If this card is lost / someone's lost card is found, please inform / return to :
Income Tax PAN Services Unit, Protean eGov Technologies Limited
(formerly NSDL e-Governance Infrastructure Limited)
4th Floor, Sapphire Chambers,
Baner Road, Baner,
Pune - 411045
Tel: 91-20-2721 8080, e-mail: tinmfo@proteantech.in

Electronically issued and Digitally signed ePAN is a valid mode of issue of Permanent Account Number (PAN) post amendments in clause (c) in the Explanation occurring after sub-section (8) of Section 139A of Income Tax Act, 1961 and sub-rule (6) of Rule 114 of the Income Tax Rules, 1962. For more details, click here

LEGAL OPINION FOR CONSORTIUM

C.S. KAPTAN
Senior Advocate
Kaptanwada, Zenda Chowk, Mahal, Nagpur-440032
Phone:- 9422107369 Email:- cskaptan@gmail.com

OPINION

My opinion is sought on letter dated 05.06.2023, issued by Prafulved Infra and Praful Deshmukh Associates 5 LLP regarding intimation of forming SPV as per Consortium Agreement under LLP Act, 2008.

It appears that the Corporation has invited bids for development of N.M.C. Mixed Use Commercial Complex Project on plot no.5 of Orange City Street Project of N.M.C. at Nagpur on Design, Built, Finance, Maintain and Sale Mode. Pursuant to this Prafulved Infra Pvt. Ltd. and Praful Narendra Deshmukh (Prop.) (J. V.) submitted its bid and the same has been accepted by the Nagpur Municipal Corporation. The N.M.C. is also issued letter of Award to Prafulved Infra Pvt. Ltd. and Praful Narendra Deshmukh (Prop.) (J.V.) on 26.04.2023. As per the bid document, the joint venture consortium could submit its bid validly. Clause -6 of the RFP provides for other instructions to the bidder. Clause – 6.2.2 provides that the selected bidder has the option to formulate Special Purpose Vehicle (the 'SPV') incorporated under the Indian Companies Act, 1956 / 2013 / Partnership Act, 1932 / LLP Act, 2008 to execute the Development Agreement and Implement the Project. This is subject to certain other conditions as mentioned under the clause.

C.S. KAPTAN
Senior Advocate
Kaptanwada, Zenda Chowk, Mahal, Nagpur-440032
Phone:- 9422107369 Email:- cskaptan@gmail.com

It appears that Prafulved Infra Pvt. Ltd. and Praful Narendra Deshmukh (Prop.) (J.V.) has submitted the joint venture agreement and has also submitted letter informing that it has formed SPV as per the consortium agreement under LLP Act, 2008. The SPV is named as Prafulved Infra and Praful Deshmukh Associates 5 LLP. The bidder has sought approval to the name of said SPV and formation thereof from the Municipal Corporation and for that purpose my opinion is sought.

I have seen the relevant documents. In my opinion, the Corporation should not have any objection to permit the successful bidder to form SPV i.e. Prafulved Infra and Praful Deshmukh Associates 5 LLP as requested by the successful bidder. This is permissible as per Clause 6.2.2. of the RFP document. This does not change the nature of award of contract in favour of the original bidder i.e. Prafulved Infra Pvt. Ltd. and Praful Narendra Deshmukh (Prop.) (J.V.). The only thing that will have to be seen is that the formation of SPV is in conformity with the conditions mentioned in Clause 6.2.2. and such other condition as provided in RFP document. Formation of SPV for execution of contract by the successful bidder is a trade practice and it is for the convenience of both the employer and the awardee of the contract.

I have also seen the legal opinion of Advocate Shri Girish A. Kunte. On this issue, however, I respectfully disagree with his opinion.

177

C.S. KAPTAN
Senior Advocate
Kaptanwada, Zenda Chowk, Mahal, Nagpur-440032
Phone:- 9422107369 Email:- cskaptan@gmail.com

Hence, I am of the opinion that the successful awardee can be permitted to form SPV for execution of project and an agreement can also be executed with the proposed SPV.

Hence this opinion.

C.S. KAPTAN,
Senior Advocate.

CONSTITUTION DOCUMENTS & LEGAL OPINION FROM COUNSEL

सत्यमेव जयते

GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS

Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that PRAFULVED INFRA PRIVATE LIMITED is incorporated on this Eleventh day of January Two thousand nineteen under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company is U45200MH2019PTC319415.

The Permanent Account Number (PAN) of the company is AAKCP2972M*

The Tax Deduction and Collection Account Number (TAN) of the company is NGPP06538A*

Given under my hand at Manesar this Eleventh day of January Two thousand nineteen .

DS MINISTRY OF CORPORATE AFFAIRS 27

Digital Signature Certificate
Mrs. ANJALI POKHRIYAL
Assistant Registrar Of Companies
For and on behalf of the Jurisdictional Registrar of Companies
Registrar of Companies
Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on www.mca.gov.in

---

Mailing Address as per record available in Registrar of Companies office:

PRAFULVED INFRA PRIVATE LIMITED
F NO 501,SHRIKRSHNA RESIDENCY, DHARAMPETH, NAGPUR, Nagpur,
Maharashtra, India, 440010

* as issued by the Income Tax Department

[Pursuant to Schedule I (see Sections 4 and 5) to the Companies Act, 2013)] FORM NO. INC-33

SPICe MOA

(e-Memorandum of Association)

MOA language: (•) English ( ) Hindi

SRN of RUN H39962741 Pre-fill

*** Table applicable to company as notified under schedule I of the companies Act, 2013** A

Table A- MEMORANDUM OF ASSOCIATION OF A COMPANY LIMITED BY SHARES

1. The Name of the Company is PRAFULVED INFRA PRIVATE LIMITED

2.The Registered office of the company will be situated in the state of Maharashtra-MH

3.(a)The objects to be pursued by the company on its incorporation are

To carry on the business and to act, as Promoters, Land Developers, builders, residential and commercial construction contractors, developers of technology park, software parks, business parks, bio-technology park, Estate Brokers, Estate Agents, erectors of factories, industries, industrial sheds and to construct, execute, carry, equipments, improve, develop works and buildings, roadways, docks, harbors, wharfs, water courses, reservoirs, bridges, wells, embankments, irrigations, agricultural, non-agricultural land, erection works, reclamations, sewage, drainage and other buildings and any kind of work in connection with building and real estate, civil contractors, infrastructure development and other things related to construction undertaken from Government or other bodies corporate, whether in India or abroad and to carry on the business of consultancy and management services in the areas of real estate development, building, construction, infrastructure development and technical layouts, plans, blueprints, designs for the purpose of construction and building of houses, bungalows, residential apartments, hotels, holiday resorts, motels, factories, commercial premises, townships, tenements, housing schemes, co-operative societies, hospitals, gardens, bridges, roads, civil works, including for project construction management, artificial intelligence in construction management, structural design including computer aided development of and to monitor the progress of the said projects.

3.(b)Matters which are necessary for furtherance of the objects specified in clause 3(a) are

1. To undertake and carry on the office or offices and duties of executor, administrator, attorney or nominee of, or for any person, company, corporation, association, scheme, trust, fund, government, state, municipal or other body corporate for business of the Company.

2. To operate branch of a business which this Company is authorized to carry on by means, or through the agency of, any subsidiary company or companies, and to enter into any arrangement with such subsidiary company for taking the profits and bearing the losses of any business or branches so carried on, or for financing any such subsidiary company or guaranteeing its liabilities, or to make any other arrangement which may seem desirable with reference to any business or branch so carried on including power at any time and either temporarily or permanently to close any such branch or business.

3. To enter into partnership or into any arrangement for sharing profits, amalgamation, union of interest, co-operation, joint venture, reciprocal concession or otherwise or amalgamate with any person or Company carrying on or engaged in, or about to carry on or engage in any business or transaction which the Company is authorized to carry on or act on and to take or otherwise acquire share and securities of any such company and to sell, hold, reissue with or without guarantee or otherwise deal with the same.

4. To enter into foreign or Indian technical and/or financial collaboration, partnership or into any arrangement for sharing of profits, union of interest, co-operation, joint venture, reciprocal concession, or otherwise with any person, firm, corporation or government carrying on, engaged in or about to carry on or engage in any business undertaking to guarantee contracts or otherwise acquire and hold shares or securities of any such persons firms or companies, to sell, hold, re-issue with or without deal with the same.

5. To acquire and undertake the whole or any part of the business property and abilities of any person, firm or any Company carrying on any business which the Company is authorized to carry on or possessed of property suitable for the purpose of the Company.

6. To purchase, take on lease or otherwise acquire any land grants, concession and easement and hereditaments or other properties any

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real or personal property, patents, licenses, rights or privileges required for the attainment of the main object of the company and to construct maintain and alter any total offices, building or works necessary or convenient for the purpose of attaining the objects of the Company.

7. To enter into any arrangement with any governments or authorities that may seem conducive to the attainment of the Company's object or any of them and to obtain from any such government or authority, any rights, privileges, licenses and concession.

8. To pay for any services rendered to the Company or for supply of technical know-how for acquisition of properties by the Company either in the shares of the Company and partly in shares or partly in cash or otherwise.

9. To issue and allot fully or partly paid shares in the capital of the Company in payment or part payment if any real or personal property purchased or otherwise acquire by the Company or any services rendered to the Company.

10. To amalgamate, enter into any partnership or partially amalgamate with or acquire interest on the business of any other Company, person or firm carrying on or engaged in, or about to carry on engage in any business or transaction included in the objects of the Company, or enter into any arrangement for limiting competition or for sharing mutual assistance with any such person, firm or company in India or abroad or to acquire and of the acts or things aforesaid or property acquired, any share, debentures, debenture stock or securities that may be agreed upon, and to hold and retail or sell, mortgage and deal with any shares, debenture-stock or securities so received.

11. To establish or promote or concur in establishing or promoting any company or companies having similar objects for the purpose or acquiring all or any of the properties rights and liabilities of the Company and to place or guarantee the placing of, underwrite, subscribe for, or otherwise acquire all or any part of the shares, debentures or other securities of any such other company or companies.

12. To sell, lease, mortgage, hypothecate, transfer, let-out, or otherwise deal with the undertaking of the Company or any property whatever, or any part thereof for such consideration as the Company may think fit and in particular for shares, debentures and other securities of any other companies having objects altogether or in part similar to those of this Company if thought fit to distribute the same among the share holders of the Company subject to the provision of the Companies Act, 2013.

13. To create any depreciation fund, reserve fund, sinking for depreciation or for repairs, improving, extending or maintaining any of the property or other assets of the Company or for redemption of debentures of transferable preference shares or for any purpose whatsoever conducive to the interest of the Company.

14. To advance money loan or give credit with or without security to such person or companies and on such terms as may seem expedient and to guarantee to become liable for the payment of money or for the performance of any obligations, and generally to transact all kinds of guarantee business and also to transact all kinds of trust and agency business.

15. To Invest the funds in shares, stocks, debentures, debenture-stock, bonds, obligations and securities issued or guaranteed by any company constituted or carrying on business in India or in any foreign country and debentures, debenture stock, bonds, obligations and securities issued or guaranteed by any Government, Sovereign Rulers, Commissioners, public body, or authority supreme, municipal, local or otherwise whether at home or abroad.

16. To receive money on deposit other than public deposits or loan other than public deposit borrow or raise money in such manner as the Company shall think fit without doing Banking business within the meaning of the Banking Regulation Act, 1949 and Rules or Regulation framed there under and in particular by the issue of debentures, debenture stock (Perpetual or otherwise) and to secure the repayment of any money borrowed, raised or owing by mortgage charge or lien upon all or any of the property or assets of the Company (both present and future) including its capital, and also by a similar mortgage, charge or lien to secure and guarantee the performance of contracts or obligation undertaken by the Company or any other person on behalf of the Company as the case may be subject to Section 58-A and R.B.I. Directives.

17. To negotiate loans, underwriting contract, mortgages, equity participation, cash credit, overdrafts and other financial facilities from Bank, Financial institutions, Government or semi Government bodies and others on behalf of the companies, or association, which they are assisting to promote.

18. To acquire and undertake the whole or any part of the business, property, and liabilities of any person or company carrying on (or proposing to carry on) any business which the company is authorized to carry on.

19. To sell, transfer or dispose of the business, property or undertaking of the Company or any part thereof for such consideration as the Company may think fit and in particular for shares, debentures or securities of any other company having objects altogether or in part similar to those of this Company.

20. To draw, make, accept, endorse, discount, negotiate, execute and issue bills of exchange, promissory notes, bills of lading, warrants, debentures and other negotiable or transferable instrument or securities.

21. To apply for, purchase or otherwise acquire and protect, prolong and renew in India and abroad, any patents, patent rights, brevets invention, trademarks, design licenses, protections, concession, conferring any exclusive or non-exclusive or limited right to their use or any secret or other information as to any invention, process of privilege which may seem capable of being used for any of the purpose of the Company and to use, exercise, develop or grant licenses or privilege in respect of or otherwise turn to account, the property, rights and information acquired and to carry on any business in any way connected therewith.

22. To open any kind of account including Current Account, Saving Bank Account, Overdraft, Loan Credits in any bank to make, accept, endorse, and execute promissory notes, bill of exchange and other negotiable instruments.

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information of the Company or which the Company may acquire or propose to acquire.

24. To enter into arrangements and to take all necessary or authorities supreme, national, local, municipal or otherwise of any place in which the company may have interests and to carry on any negotiations or operations for the purpose of directly or indirectly carrying out the objects of the Company or effecting any modification in the constitution of the Company for furthering the interest of its members and to oppose any such steps taken by any other company, firm or persons which may be considered likely to directly or indirectly prejudice the interest of the Company or its members and to promote or assist the promotion, whether directly or indirectly of any legislation which may appear to be in the interests of the Company or its members and to promote or assist the promotion, whether directly or indirectly of any legislation which may seem disadvantageous to the Company and to obtain from such Government authority or any company, any charters, decree, rights, grants, loans. Privileges or concessions, which the company may think it desirable to obtain and carry out, exercise and comply with any such agreements, characters, decrees, rights, privileges or concessions.

25. To undertake and execute any trust/discretion the undertaking whereof may seem desirable and the distribution amongst the beneficiaries, pensioners or other person entitled thereto, of any income capital or annuity, whether periodically or otherwise, and whether in money or specie, in furtherance of any trust, direction, discretion other obligation or permission.

26. To apply for promote and obtain any Acts of parliament, Acts of any State, Legislature, Privileges, monopolies, licenses, concessions, patents or other rights, power or orders from the Indian Government and parliament or from any state Government or any local or other authority in any part of the world and to enable the company to carry out any of its objects into effect or for any other purpose which may seem expedient.

27. To adopt such means of making known the business of the Company as may seem expedient and in particular by advertising in the press, by circulars, by purchase and exhibition of works of art or interest, by publication of books and periodicals and by granting prizes and rewards and donation.

28. To employ officers, clerk, agents, field officers, trainers, auditor, laborers and other servants' brokers or commission agents and to provide for the payment to them of such salaries, commission, brokerage or remunerations as may be found fit, expedient and necessary of desirable.

29. To undertake and execute any trust, the undertaking of which may seem to the company desirable and either gratuitously or otherwise and vest any real or personal property, rights or interests acquired by or belonging to the companies in any person or company on behalf of or for the benefit of the Company and with or without any declared trust in favour of the Company.

30. To subscribe or donate to benevolent, charitable, national or other institutions, or objects of public character or which have any moral or other claims to support or aid by the Company by reason of the locality of its operations or otherwise.

31. To apply the assets of the Company in any way in or towards the establishment, maintenance or extension of any association, institution or fund in any way connected with any particular trade or business or with trade, including any association, institution of fund for the protection of the interest of the masters, owners and employers against loss by bad-debts, strikes, fire accidents or otherwise or for the benefits of any clerks, workmen or others at any time employed by any company or any of its at any time employed by any company or any of its predecessors in business or their families or dependents and to grant gratifications, pensions and allowances and then to contribute to any funds raised by public or local subscription for any purpose whatsoever, subject to the provision of the Act.

32. To make donation to such persons or institution made in such cases and either of cash or any other assets as may be thought directly or indirectly conducive to any of the Company's object or otherwise expedient and particular to remunerate any person or corporation introducing business to this Company, and also to subscribe, contribute or otherwise assist or guarantee money for charitable, scientific, religious or benevolent, national, public or other institutions, objects or for any public or and to establish and support association, institution, objects or for any public or and to establish and support associations, institutions, funds, trusts and convenience for the benefit of the employees or ex employees(including Directors) of the Company or its predecessors in business or the dependents, with such persons and in particular other benefits societies and to grant pensions, allowances, gratuities and bonuses either by way of annual payments or a lump sum and to make payments towards insurance and to form, contribute to provident and benefit funds of or for such persons.

33. To establish and maintain or produce the establishment and maintenance of any contributory or non - contributory pensions or superannuation funds for the benefit of and give or procure the giving of donations, gratitude, pensions, allowances or employments to any persons, allowances or employment or services of the company, or were at any time in the employment or service of the company, or who are or were at any time Directors or officers of the Company or and the wives, widows, families and subsidize and subscribe to any institutions, associations, clubs or funds calculate to be for the benefit of or to advance the interests and to well-being of the company and make payments to or towards the insurance of any such persons as aforesaid.

34. To distribute among the members in specie and property of the Company, or any proceeds of sale or disposal of any property of the company, in the events of its being wound-up subject to the provision of the Companies Act, 2013.

35. To pay out of the funds of the Company all expenses which the company may lawfully pay with respect to the promotion, formation and registration of the company or the issue of its capital, including brokerage and commission for obtaining applications for or taking, placing or underwriting or procuring the underwriting of shares, debentures or other securities of the Company.

36. To appoint, remunerate and indemnify officers, directors, agents and servants of the Company against proceedings, coasts, damages, claims, and demands in respect of anything done by them for and in interest of the Company or any loss, damage or misfortune whatever which shall happen in execution of the duties of their office or in relation thereof.

37. To procure the recognition of the company under the laws or regulation of any other country and to do all acts necessary for carrying on any business or activity.

38. To insure with any other Company, firm or persons against losses, damages and risks of all kinds which may affect the company and to defend for rights in respect properties of the Company as may be deemed necessary from time to time.

4.The liability of the member(s) is limited and this liability is limited to the amount unpaid, if any, on the shares held by them.

5.The share capital of the company is 100,000.00 rupees, divided into,

10,000.00	Equity	shares of	10.00	rupees each	

6 ☒ We, the several persons, whose names and addresses are subscribed, are desirous of being formed into a company in pursuance of this memorandum of association, and we respectively agree to take the number of shares in the capital of the company set against our respective names:

S.No.	Subscriber Details					
	Name, Address, Description and Occupation	DIN/PAN/Passport Number	No. of shares taken		DSC	Dated
1	NAME: PRAFUL NARENDRA DESHMUKH S/O: NARENDRA NILKANTH DESHMUKH ADDRESS: 501,SHRIKRISHNA RESIDENCY,SHIVAJI NAGAR,DHARAMPETH, NAGPUR-440010 DOB: 27/03/1982 OCC: BUSINESS	03039307	9600	Equity	PRAFUL NARENDRA DESHMUKH Digitally signed by PRAFUL NARENDRA DESHMUKH Date: 2019.01.04 13:13:32 +05'30'	04/01/19
2	NAME: SANJIV VINODKUMAR SAHU S/O: VINODKUMAR KISANKUMAR SAHU ADDRESS: 198, SAKET,DHARAMPETH EXTENSION, DHARAMPETH,NAGPUR-440010 DOB:15/03/1961 OCC:BUSINESS	ACPPS5151F	400	Equity	SANJIV VINODKUMAR SAHU Digitally signed by SANJIV VINODKUMAR SAHU Date: 2019.01.04 13:13:53 +05'30'	04/01/19
Total Shares taken			10,000.00	Equity		

Signed before Me					
Name		Address, Description and Occupation	DIN/PAN/Passport Number/ Membership Number	DSC	Dated
ACA	NAYAN B DEOLASI	FLAT NO B-1106,RACHANA MEGHSPARSH APT,JAITALA ROAD,BHAMTI,NAGPUR-440036 OCC: CA	180938	NAYAN BHARATKUMAR DEOLASI Digitally signed by NAYAN BHARATKUMAR DEOLASI Date: 2019.01.04 13:14:56 +05'30'	04/01/19

Modify Check Form

[Pursuant to Schedule I (see Sections 4 and 5) to the Companies Act, 2013)] FORM NO. INC-34

SPICe AOA

(e-Articles of Association)

AOA language (•) English ( ) Hindi

SRN of **RUN** H39962741 Prefill

*Table F as notified under schedule I of the companies Act, 2013 is applicable to the company

PRAFULVED INFRA PRIVATE LIMITED

A COMPANY LIMITED BY SHARES

		Article No	Description
			Interpretation
☐	☒	I	(1) In these regulations – (a) "the Act" means the Companies Act, 2013, (b) "the seal" means the common seal of the company. (2) Unless the context otherwise requires, words or expressions contained in these regulations shall bear the same meaning as in the Act or any statutory modification thereof in force at the date at which these regulations become binding on the company. PRIVATE COMPANY 1. The Company is a Private Company within the meaning of Section 2(68) of the Companies Act, 2013 and accordingly:- (a) The right to transfer shares in the Company is restricted in the manner and to the extent hereinafter appearing. (b) The number of members of the Company (exclusive of persons who are in the employment of the Company, and persons who having been formerly in the employment of the Company, were members of the Company while in the employment and have continued to be members after the employment ceased) shall be limited to two hundred; provided that for the purpose of this definition where two or more persons jointly hold one or more shares in the Company, they shall be treated as a single member, and (c) No invitation shall be issued to the public or subscribe for any securities of the Company.
			Share capital and variation of rights
☐	☐	II 1	Subject to the provisions of the Act and these Articles, the shares in the capital of the company shall be under the control of the Directors who may issue, allot or otherwise dispose of the same or any of them to such persons, in such proportion and on such terms and conditions and either at a premium or at par and at such time as they may from time to time think fit.
☐	☒	2	(i) Every person whose name is entered as a member in the register of members shall be entitled to receive within two months after incorporation, in case of subscribers to the memorandum or after allotment or within one month after the application for the registration of transfer or transmission or within such other period as the conditions of issue shall be provided, -- (a) one certificate for all his shares without payment of any charges; or (b) several certificates, each for one or more of his shares, upon payment of twenty rupees for each certificate after the first. (ii) Every certificate shall be under the seal, if any of the company or signed by two directors or by a director and the Company Secretary, wherever the Company has appointed a Company Secretary and shall specify the shares to which it relates and the amount paid-up thereon. (iii) In respect of any share or shares held jointly by several persons, the company shall not be bound to issue more than one certificate, and delivery of a certificate for a share to one of several joint holders shall be sufficient delivery to all such holders
☐	☐		(i) If any share certificate be worn out, defaced, mutilated or torn or if there be no further space on the back for endorsement of transfer, then upon production and surrender thereof to the company, a new certificate may be issued in lieu thereof, and if any certificate is lost or destroyed then upon proof thereof to the satisfaction of the

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		3	company and on execution of such indemnity as the company deem adequate, a new certificate in lieu thereof shall be given. Every certificate under this Article shall be issued on payment of twenty rupees for each certificate. (ii) The provisions of Articles (2) and (3) shall mutatis mutandis apply to debentures of the company.
☐	☐	4	Except as required by law, no person shall be recognised by the company as holding any share upon any trust, and the company shall not be bound by, or be compelled in any way to recognise (even when having notice thereof) any equitable, contingent, future or partial interest in any share, or any interest in any fractional part of a share, or (except only as by these regulations or by law otherwise provided) any other rights in respect of any share except an absolute right to the entirety thereof in the registered holder.
☐	☐	5	(i) The company may exercise the powers of paying commissions conferred by sub-section (6) of section 40, provided that the rate per cent or the amount of the commission paid or agreed to be paid shall be disclosed in the manner required by that section and rules made thereunder. (ii) The rate or amount of the commission shall not exceed the rate or amount prescribed in rules made under sub-section (6) of section 40. (iii) The commission may be satisfied by the payment of cash or the allotment of fully or partly paid shares or partly in the one way and partly in the other.
☐	☐	6	(i) If at any time the share capital is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issue of the shares of that class) may, subject to the provisions of section 48, and whether or not the company is being wound up, be varied with the consent in writing of the holders of three-fourths of the issued shares of that class, or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class. (ii) To every such separate meeting, the provisions of these regulations relating to general meetings shall mutatis mutandis apply, but so that the necessary quorum shall be at least two persons holding at least one-third of the issued shares of the class in question.
☐	☐	7	The rights conferred upon the holders of the shares of any class issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking pari passu therewith.
☐	☐	8	Subject to the provisions of section 55, any preference shares may, with the sanction of an ordinary resolution, be issued on the terms that they are to be redeemed on such terms and in such manner as the company before the issue of the shares may, by special resolution, determine.
			Lien
☐	☐	9	(i) The company shall have a first and paramount lien -- (a) on every share (not being a fully paid share), for all monies (whether presently payable or not) called, or payable at a fixed time, in respect of that share; and (b) on all shares (not being fully paid shares) standing registered in the name of a single person, for all monies presently payable by him or his estate to the company: Provided that the Board of directors may at any time declare any share to be wholly or in part exempt from the provisions of this clause. (ii) The company's lien, if any, on a share shall extend to all dividends payable and bonuses declared from time to time in respect of such shares.
☐	☐	10	The company may sell, in such manner as the Board thinks fit, any shares on which the company has a lien: Provided that no sale shall be made -- (a) unless a sum in respect of which the lien exists is presently payable; or (b) until the expiration of fourteen days after a notice in writing stating and demanding payment of such part of the amount in respect of which the lien exists as is presently payable, has been given to the registered holder for the time being of the share or the person entitled thereto by reason of his death or insolvency.
☐	☐	11	(i) To give effect to any such sale, the Board may authorise some person to transfer the shares sold to the purchaser thereof (ii) The purchaser shall be registered as the holder of the shares comprised in any such transfer. (iii) The purchaser shall not be bound to see to the application of the purchase money, nor shall his title to the shares be affected by any irregularity or invalidity in the proceedings in reference to the sale.
☐	☐	12	(i) The proceeds of the sale shall be received by the company and applied in payment of such part of the amount in respect of which the lien exists as is presently payable. ii) The residue, if any, shall, subject to a like lien for sums not presently payable as existed upon the shares before the sale, be paid to the person entitled to the shares at the date of the sale.
			Calls on shares

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☐	☐	13	(i) The Board may, from time to time, make calls upon the members in respect of any monies unpaid on their shares (whether on account of the nominal value of the shares or by way of premium) and not by the conditions of allotment thereof made payable at fixed times: Provided that no call shall exceed one-fourth of the nominal value of the share or be payable at less than one month from the date fixed for the payment of the last preceding call. (ii) Each member shall, subject to receiving at least fourteen days' notice specifying the time or times and place of payment, pay to the company, at the time or times and place so specified, the amount called on his shares. (iii) A call may be revoked or postponed at the discretion of the Board.
☐	☐	14	A call shall be deemed to have been made at the time when the resolution of the Board authorizing the call was passed and may be required to be paid by instalments.
☐	☐	15	The joint holders of a share shall be jointly and severally liable to pay all calls in respect thereof.
☐	☐	16	(i) If a sum called in respect of a share is not paid before or on the day appointed for payment thereof, the person from whom the sum is due shall pay interest thereon from the day appointed for payment thereof to the time of actual payment at ten per cent per annum or at such lower rate, if any, as the Board may determine. (ii) The Board shall be at liberty to waive payment of any such interest wholly or in part.
☐	☐	17	(i) Any sum which by the terms of issue of a share becomes payable on allotment or at any fixed date, whether on account of the nominal value of the share or by way of premium, shall, for the purposes of these regulations, be deemed to be a call duly made and payable on the date on which by the terms of issue such sum becomes payable. (ii) In case of non-payment of such sum, all the relevant provisions of these regulations as to payment of interest and expenses, forfeiture or otherwise shall apply as if such sum had become payable by virtue of a call duly made and notified.
☐	☐	18	The Board -- (a) may, if it thinks fit, receive from any member willing to advance the same, all or any part of the monies uncalled and unpaid upon any shares held by him; and (b) upon all or any of the monies so advanced, may (until the same would, but for such advance, become presently payable) pay interest at such rate not exceeding, unless the company in general meeting shall otherwise direct, twelve per cent per annum, as may be agreed upon between the Board and the member paying the sum in advance.
			Transfer of shares
☐	☐	19	(i) The instrument of transfer of any share in the company shall be executed by or on behalf of both the transferor and transferee. (ii) The transferor shall be deemed to remain a holder of the share until the name of the transferee is entered in the register of members in respect thereof.
☐	☐	20	The Board may, subject to the right of appeal conferred by section 58 decline to register -- (a) the transfer of a share, not being a fully paid share, to a person of whom they do not approve; or (b) any transfer of shares on which the company has a lien.
☐	☐	21	The Board may decline to recognise any instrument of transfer unless -- (a) the instrument of transfer is in the form as prescribed in rules made under sub-section (1) of section 56; (b) the instrument of transfer is accompanied by the certificate of the shares to which it relates, and such other evidence as the Board may reasonably require to show the right of the transferor to make the transfer; and (c) the instrument of transfer is in respect of only one class of shares.
☐	☐	22	On giving not less than seven days' previous notice in accordance with section 91 and rules made thereunder, the registration of transfers may be suspended at such times and for such periods as the Board may from time to time determine: Provided that such registration shall not be suspended for more than thirty days at any one time or for more than forty-five days in the aggregate in any year.
			Transmission of shares
☐	☐	23	(i) On the death of a member, the survivor or survivors where the member was a joint holder, and his nominee or nominees or legal representatives where he was a sole holder, shall be the only persons recognised by the company as having any title to his interest in the shares (ii) Nothing in clause (i) shall release the estate of a deceased joint holder from any liability in respect of any share which had been jointly held by him with other persons.

☐	☐	24	(i) Any person becoming entitled to a share in consequence of the death or insolvency of a member may, upon such evidence being produced as may from time to time properly be required by the Board and subject as hereinafter provided, elect, either -- (a) to be registered himself as holder of the share; or (b) to make such transfer of the share as the deceased or insolvent member could have made. (ii) The Board shall, in either case, have the same right to decline or suspend registration as it would have had, if the deceased or insolvent member had transferred the share before his death or insolvency.
☐	☐	25	(i) If the person so becoming entitled shall elect to be registered as holder of the share himself, he shall deliver or send to the company a notice in writing signed by him stating that he so elects. (ii) If the person aforesaid shall elect to transfer the share, he shall testify his election by executing a transfer of the share. (iii) All the limitations, restrictions and provisions of these regulations relating to the right to transfer and the registration of transfers of shares shall be applicable to any such notice or transfer as aforesaid as if the death or insolvency of the member had not occurred and the notice or transfer were a transfer signed by that member.
☐	☐	26	A person becoming entitled to a share by reason of the death or insolvency of the holder shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share, except that he shall not, before being registered as a member in respect of the share, be entitled in respect of it to exercise any right conferred by membership in relation to meetings of the company: Provided that the Board may, at any time, give notice requiring any such person to elect either to be registered himself or to transfer the share, and if the notice is not complied with within ninety days, the Board may thereafter withhold payment of all dividends, bonuses or other monies payable in respect of the share, until the requirements of the notice have been complied with.
			Forfeiture of shares
☐	☐	27	If a member fails to pay any call, or instalment of a call, on the day appointed for payment thereof, the Board may, at any time thereafter during such time as any part of the call or instalment remains unpaid, serve a notice on him requiring payment of so much of the call or instalment as is unpaid, together with any interest which may have accrued.
☐	☐	28	The notice aforesaid shall – (a) name a further day (not being earlier than the expiry of fourteen days from the date of service of the notice) on or before which the payment required by the notice is to be made; and (b) state that, in the event of non-payment on or before the day so named, the shares in respect of which the call was made shall be liable to be forfeited.
☐	☐	29	If the requirements of any such notice as aforesaid are not complied with, any share in respect of which the notice has been given may, at any time thereafter, before the payment required by the notice has been made, be forfeited by a resolution of the Board to that effect.
☐	☐	30	(i) A forfeited share may be sold or otherwise disposed of on such terms and in such manner as the Board thinks fit. (ii) At any time before a sale or disposal as aforesaid, the Board may cancel the forfeiture on such terms as it thinks fit.
☐	☐	31	(i) A person whose shares have been forfeited shall cease to be a member in respect of the forfeited shares, but shall, notwithstanding the forfeiture, remain liable to pay to the company all monies which, at the date of forfeiture, were presently payable by him to the company in respect of the shares. (ii) The liability of such person shall cease if and when the company shall have received payment in full of all such monies in respect of the shares.
☐	☐	32	(i) A duly verified declaration in writing that the declarant is a director, the manager or the secretary, of the company, and that a share in the company has been duly forfeited on a date stated in the declaration, shall be conclusive evidence of the facts therein stated as against all persons claiming to be entitled to the share; (ii) The company may receive the consideration, if any, given for the share on any sale or disposal thereof and may execute a transfer of the share in favour of the person to whom the share is sold or disposed of; (iii) The transferee shall thereupon be registered as the holder of the share; and (iv) The transferee shall not be bound to see to the application of the purchase money, if any, nor shall his title

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			to the share be affected by any irregularity or invalidity in the proceedings in reference to the forfeiture, sale or disposal of the share.
☐	☐	33	The provisions of these regulations as to forfeiture shall apply in the case of nonpayment of any sum which, by the terms of issue of a share, becomes payable at a fixed time, whether on account of the nominal value of the share or by way of premium, as if the same had been payable by virtue of a call duly made and notified.
			Alteration of capital
☐	☐	34	The company may, from time to time, by ordinary resolution increase the share capital by such sum, to be divided into shares of such amount, as may be specified in the resolution.
☐	☐	35	Subject to the provisions of section 61, the company may, by ordinary resolution, -- (a) consolidate and divide all or any of its share capital into shares of larger amount than its existing shares; (b) convert all or any of its fully paid-up shares into stock, and reconvert that stock into fully paid-up shares of any denomination; (c) sub-divide its existing shares or any of them into shares of smaller amount than is fixed by the memorandum; (d) cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person.
☐	☐	36	Where shares are converted into stock, -- (a) the holders of stock may transfer the same or any part thereof in the same manner as, and subject to the same regulations under which, the shares from which the stock arose might before the conversion have been transferred, or as near thereto as circumstances admit: Provided that the Board may, from time to time, fix the minimum amount of stock transferable, so, however, that such minimum shall not exceed the nominal amount of the shares from which the stock arose. (b) the holders of stock shall, according to the amount of stock held by them, have the same rights, privileges and advantages as regards dividends, voting at meetings of the company, and other matters, as if they held the shares from which the stock arose; but no such privilege or advantage (except participation in the dividends and profits of the company and in the assets on winding up) shall be conferred by an amount of stock which would not, if existing in shares, have conferred that privilege or advantage. (c) such of the regulations of the company as are applicable to paid-up shares shall apply to stock and the words "share" and "shareholder" in those regulations shall include "stock" and "stock-holder" respectively.
☐	☐	37	The company may, by special resolution, reduce in any manner and with, and subject to, any incident authorised and consent required by law, -- (a) its share capital; (b) any capital redemption reserve account; or (c) any share premium account.
			Capitalisation of profits
☐	☐	38	(i) The company in general meeting may, upon the recommendation of the Board, resolve -- (a) that it is desirable to capitalise any part of the amount for the time being standing to the credit of any of the company's reserve accounts, or to the credit of the, profit and loss account, or otherwise available for distribution; and (b) that such sum be accordingly set free for distribution in the manner specified in clause (ii) amongst the members who would have been entitled thereto, if distributed by way of dividend and in the same proportions. (ii) The sum aforesaid shall not be paid in cash but shall be applied, subject to the provision contained in clause (iii), either in or towards -- (A) paying up any amounts for the time being unpaid on any shares held by such members respectively; (B) paying up in full, unissued shares of the company to be allotted and distributed, credited as fully paid-up, to and amongst such members in the proportions aforesaid; (C) partly in the way specified in sub-clause (A) and partly in that specified in sub-clause (B); (D) A securities premium account and a capital redemption reserve account may, for the purposes of this regulation, be applied in the paying up of unissued shares to be issued to members of the company as fully paid bonus shares; (E) The Board shall give effect to the resolution passed by the company in pursuance of this regulation.

☐	☐	39	(i) Whenever such a resolution as aforesaid shall have been passed, the Board shall -- (a) make all appropriations and applications of the undivided profits resolved to be capitalised thereby, and all allotments and issues of fully paid shares if any; and (b) generally do all acts and things required to give effect thereto. (ii) The Board shall have power -- (a) to make such provisions, by the issue of fractional certificates or by payment in cash or otherwise as it thinks fit, for the case of shares becoming distributable in fractions; and (b) to authorise any person to enter, on behalf of all the members entitled thereto, into an agreement with the company providing for the allotment to them respectively, credited as fully paid-up, of any further shares to which they may be entitled upon such capitalisation, or as the case may require, for the payment by the company on their behalf, by the application thereto of their respective proportions of profits resolved to be capitalised, of the amount or any part of the amounts remaining unpaid on their existing shares; (iii) Any agreement made under such authority shall be effective and binding on such members.
			Buy-back of shares
☐	☐	40	Notwithstanding anything contained in these articles but subject to the provisions of sections 68 to 70 and any other applicable provision of the Act or any other law for the time being in force, the company may purchase its own shares or other specified securities.
			General meetings
☐	☐	41	All general meetings other than annual general meeting shall be called extraordinary general meeting.
☐	☐	42	(i) The Board may, whenever it thinks fit, call an extraordinary general meeting. (ii) If at any time directors capable of acting who are sufficient in number to form a quorum are not within India, any director or any two members of the company may call an extraordinary general meeting in the same manner, as nearly as possible, as that in which such a meeting may be called by the Board.
			Proceedings at general meetings
☐	☐	43	(i) No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business. (ii) Save as otherwise provided herein, the quorum for the general meetings shall be as provided in section 103.
☐	☐	44	The chairperson, if any, of the Board shall preside as Chairperson at every general meeting of the company.
☐	☐	45	If there is no such Chairperson, or if he is not present within fifteen minutes after the time appointed for holding the meeting, or is unwilling to act as chairperson of the meeting, the directors present shall elect one of their members to be Chairperson of the meeting.
☐	☐	46	If at any meeting no director is willing to act as Chairperson or if no director is present within fifteen minutes after the time appointed for holding the meeting, the members present shall choose one of their members to be Chairperson of the meeting.
			Adjournment of meeting
☐	☐	47	(i) The Chairperson may, with the consent of any meeting at which a quorum is present, and shall, if so directed by the meeting, adjourn the meeting from time to time and from place to place. (ii) No business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. (iii) When a meeting is adjourned for thirty days or more, notice of the adjourned meeting shall be given as in the case of an original meeting. (iv) Save as aforesaid, and as provided in section 103 of the Act, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.
			Voting rights

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☐	☐	48	Subject to any rights or restrictions for the time being attached to any class or classes of shares, -- (a) on a show of hands, every member present in person shall have one vote; and (b) on a poll, the voting rights of members shall be in proportion to his share in the paid-up equity share capital of the company.
☐	☐	49	A member may exercise his vote at a meeting by electronic means in accordance with section 108 and shall vote only once.
☐	☐	50	(i) In the case of joint holders, the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders. (ii) For this purpose, seniority shall be determined by the order in which the names stand in the register of members.
☐	☐	51	A member of unsound mind, or in respect of whom an order has been made by any court having jurisdiction in lunacy, may vote, whether on a show of hands or on a poll, by his committee or other legal guardian, and any such committee or guardian may, on a poll, vote by proxy.
☐	☐	52	Any business other than that upon which a poll has been demanded may be proceeded with, pending the taking of the poll.
☐	☐	53	No member shall be entitled to vote at any general meeting unless all calls or other sums presently payable by him in respect of shares in the company have been paid
☐	☐	54	(i) No objection shall be raised to the qualification of any voter except at the meeting or adjourned meeting at which the vote objected to is given or tendered, and every vote not disallowed at such meeting shall be valid for all purposes. (ii) Any such objection made in due time shall be referred to the Chairperson of the meeting, whose decision shall be final and conclusive.
			Proxy
☐	☐	55	The instrument appointing a proxy and the power-of-attorney or other authority, if any, under which it is signed or a notarised copy of that power or authority, shall be deposited at the registered office of the company not less than 48 hours before the time for holding the meeting or adjourned meeting at which the person named in the instrument proposes to vote, or, in the case of a poll, not less than 24 hours before the time appointed for the taking of the poll; and in default the instrument of proxy shall not be treated as valid.
☐	☐	56	An instrument appointing a proxy shall be in the form as prescribed in the rules made under section 105
☐	☐	57	A vote given in accordance with the terms of an instrument of proxy shall be valid, notwithstanding the previous death or insanity of the principal or the revocation of the proxy or of the authority under which the proxy was executed, or the transfer of the shares in respect of which the proxy is given: Provided that no intimation in writing of such death, insanity, revocation or transfer shall have been received by the company at its office before the commencement of the meeting or adjourned meeting at which the proxy is used.
			Board of Directors
☐	☒	58	The number of Directors shall not be less than two and not more than fifteen. ii)The Following shall be the First directors of the Company. i. Praful Narendra Deshmukh S/o. Narendra Deshmukh ii. Sanjiv Vinodkumar Sahu S/o. Vinodkumar Sahu iii)The number of the directors and the names of the first directors shall be determined in writing by the subscribers of the memorandum or a majority of them.
☐	☐	59	(i) The remuneration of the directors shall, in so far as it consists of a monthly payment, be deemed to accrue from day-to-day. (ii) In addition to the remuneration payable to them in pursuance of the Act, the directors may be paid all travelling, hotel and other expenses properly incurred by them -- (a) in attending and returning from meetings of the Board of Directors or any committee thereof or general meetings of the company; or (b) in connection with the business of the company.
☐	☐	60	The Board may pay all expenses incurred in getting up and registering the company.
☐	☐	61	The company may exercise the powers conferred on it by section 88 with regard to the keeping of a foreign register; and the Board may (subject to the provisions of that section) make and vary such regulations as it may thinks fit respecting the keeping of any such register.

☐	☐	62	All cheques, promissory notes, drafts, hundis, bills of exchange and other negotiable instruments, and all receipts for monies paid to the company, shall be signed, drawn, accepted, endorsed, or otherwise executed, as the case may be, by such person and in such manner as the Board shall from time to time by resolution determine
☐	☐	63	Every director present at any meeting of the Board or of a committee thereof shall sign his name in a book to be kept for that purpose.
☐	☐	64	(i) Subject to the provisions of section 149, the Board shall have power at any time, and from time to time, to appoint a person as an additional director, provided the number of the directors and additional directors together shall not at any time exceed the maximum strength fixed for the Board by the articles. (ii) Such person shall hold office only up to the date of the next annual general meeting of the company but shall be eligible for appointment by the company as a director at that meeting subject to the provisions of the Act.
			Proceedings of the Board
☐	☐	65	(i) The Board of Directors may meet for the conduct of business, adjourn and otherwise regulate its meetings, as it thinks fit. (ii) A director may, and the manager or secretary on the requisition of a director shall, at any time, summon a meeting of the Board.
☐	☐	66	(i) Save as otherwise expressly provided in the Act, questions arising at any meeting of the Board shall be decided by a majority of votes. (ii) In case of an equality of votes, the Chairperson of the Board, if any, shall have a second or casting vote.
☐	☐	67	The continuing directors may act notwithstanding any vacancy in the Board; but, if and so long as their number is reduced below the quorum fixed by the Act for a meeting of the Board, the continuing directors or director may act for the purpose of increasing the number of directors to that fixed for the quorum, or of summoning a general meeting of the company, but for no other purpose.
☐	☐	68	(i) The Board may elect a Chairperson of its meetings and determine the period for which he is to hold office. (ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the directors present may choose one of their number to be Chairperson of the meeting.
☐	☐	69	(i) The Board may, subject to the provisions of the Act, delegate any of its powers to committees consisting of such member or members of its body as it thinks fit. (ii) Any committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Board.
☐	☐	70	(i) A committee may elect a Chairperson of its meetings. (ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the members present may choose one of their members to be Chairperson of the meeting.
☐	☐	71	(i) A committee may meet and adjourn as it thinks fit. (ii) Questions arising at any meeting of a committee shall be determined by a majority of votes of the members present, and in case of an equality of votes, the Chairperson shall have a second or casting vote.
☐	☐	72	All acts done in any meeting of the Board or of a committee thereof or by any person acting as a director, shall, notwithstanding that it may be afterwards discovered that there was some defect in the appointment of any one or more of such directors or of any person acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such director or such person had been duly appointed and was qualified to be a director.
☐	☐	73	Save as otherwise expressly provided in the Act, a resolution in writing, signed by all the members of the Board or of a committee thereof, for the time being entitled to receive notice of a meeting of the Board or committee, shall be valid and effective as if it had been passed at a meeting of the Board or committee, duly convened and held.
			Chief Executive Officer, Manager, Company Secretary or Chief Financial Officer
☐	☐	74	Subject to the provisions of the Act, -- (i) A chief executive officer, manager, company secretary or chief financial officer may be appointed by the Board for such term, at such remuneration and upon such conditions as it may thinks fit; and any chief executive officer, manager, company secretary or chief financial officer so appointed may be removed by means of a resolution of the Board:

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			(ii) A director may be appointed as chief executive officer, manager, company secretary or chief financial officer
☐	☐	75	A provision of the Act or these regulations requiring or authorising a thing to be done by or to a director and chief executive officer, manager, company secretary or chief financial officer shall not be satisfied by its being done by or to the same person acting both as director and as, or in place of, chief executive officer, manager, company secretary or chief financial officer.
			Dividends and Reserve
☐	☐	77	The company in general meeting may declare dividends, but no dividend shall exceed the amount recommended by the Board.
☐	☐	78	Subject to the provisions of section 123, the Board may from time to time pay to the members such interim dividends as appear to it to be justified by the profits of the company.
☐	☐	79	(i) The Board may, before recommending any dividend, set aside out of the profits of the company such sums as it thinks fit as a reserve or reserves which shall, at the discretion of the Board, be applicable for any purpose to which the profits of the company may be properly applied, including provision for meeting contingencies or for equalizing dividends; and pending such application, may, at the like discretion, either be employed in the business of the company or be invested in such investments (other than shares of the company) as the Board may, from time to time, thinks fit. (ii) The Board may also carry forward any profits which it may consider necessary not to divide, without setting them aside as a reserve
☐	☐	80	(i) Subject to the rights of persons, if any, entitled to shares with special rights as to dividends, all dividends shall be declared and paid according to the amounts paid or credited as paid on the shares in respect whereof the dividend is paid, but if and so long as nothing is paid upon any of the shares in the company, dividends may be declared and paid according to the amounts of the shares. (ii) No amount paid or credited as paid on a share in advance of calls shall be treated for the purposes of this regulation as paid on the share. (iii) All dividends shall be apportioned and paid proportionately to the amounts paid or credited as paid on the shares during any portion or portions of the period in respect of which the dividend is paid; but if any share is issued on terms providing that it shall rank for dividend as from a particular date such share shall rank for dividend accordingly.
☐	☐	81	The Board may deduct from any dividend payable to any member all sums of money, if any, presently payable by him to the company on account of calls or otherwise in relation to the shares of the company.
☐	☐	82	(i) Any dividend, interest or other monies payable in cash in respect of shares may be paid by cheque or warrant sent through the post directed to the registered address of the holder or, in the case of joint holders, to the registered address of that one of the joint holders who is first named on the register of members, or to such person and to such address as the holder or joint holders may in writing direct. (ii) Every such cheque or warrant shall be made payable to the order of the person to whom it is sent.
☐	☐	83	Any one of two or more joint holders of a share may give effective receipts for any dividends, bonuses or other monies payable in respect of such share.
☐	☐	84	Notice of any dividend that may have been declared shall be given to the persons entitled to share therein in the manner mentioned in the Act.
☐	☐	85	No dividend shall bear interest against the company.
			Accounts
☐	☐	86	(i) The Board shall from time to time determine whether and to what extent and at what times and places and under what conditions or regulations, the accounts and books of the company, or any of them, shall be open to the inspection of members not being directors. (ii) No member (not being a director) shall have any right of inspecting any account or book or document of the company except as conferred by law or authorised by the Board or by the company in general meeting.
			Winding up
☐	☐		Subject to the provisions of Chapter XX of the Act and rules made thereunder -- (i) If the company shall be wound up, the liquidator may, with the sanction of a special resolution of the company and any other sanction required by the Act, divide amongst the members, in specie or kind, the

		87	whole or any part of the assets of the company, whether they shall consist of property of the same kind or not. (ii) For the purpose aforesaid, the liquidator may set such value as he deems fair upon any property to be divided as aforesaid and may determine how such division shall be carried out as between the members or different classes of members. (iii) The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trusts for the benefit of the contributories if he considers necessary, but so that no member shall be compelled to accept any shares or other securities whereon there is any liability.
			Indemnity
☐	☐	88	Every officer of the company shall be indemnified out of the assets of the company against any liability incurred by him in defending any proceedings, whether civil or criminal, in which judgment is given in his favour or in which he is acquitted or in which relief is granted to him by the court or the Tribunal.
☒			Others
		89	89. BORROWING POWERS i) Subject to section 73 and 179 of the Companies Act. 2013, and Regulations made there under and Directions issued by the RBI the directors may, from time to time, raise or borrow any sums of money for and on behalf of the Company from the member or other persons, companies or banks or they may themselves advance money to the company on such interest as may be approved by the Directors. ii) The Directors may, from time to time, secure the payment of such money in such manner and upon such terms and conditions in all respects as they deem fit and in particular by the issue of bonds or debentures or by pledge, mortgage, charge or any other security on allor any properties of the Company (both present and future) including its uncalled capital for the time being. 90. OPERATION OF BANK ACCOUNTS The Directors shall have the power to open bank accounts to sign cheques on behalf of the Company and to operate all banking accounts of the Company and to receive payments, make endorsements, draw and accept negotiable instruments, hundies and bills or may authorize any other person or persons to exercise such powers. 91. AUDIT (a) The first Auditor of the Company shall be appointed by the Board of Directors within one month from the date of registration of the Company and the Auditors so appointed shall hold office until the conclusion of the first Annual General Meeting. (b) At first annual General Meeting the Company shall appoint an Auditor to hold Office from the conclusion of the Meeting till the conclusion of its sixth Annual General Meeting and thereafter till the conclusion of every six meeting. (c) The remuneration of the Auditor shall be fixed by the Company in the Annual General Meeting or in such manner as the Company in the Annual General Meeting may determine. In case of an Auditor appointed by the Board his remuneration shall be fixed by the Board. 92. SECRECY Subject to the provisions of law of land and the act, every manager, auditor trustee, member of a committee, officer servant, agent accountant or other persons employed in the business of the company shall, if so required by the Board of Directors before entering upon his duties, sign, declaration, pledging himself to observe strict secrecy respecting all transactions of the Company with its customers and the state of account with individuals and in matters relating thereto and shall by such declaration pledge himself, not to reveal any of the matters which may come to his knowledge in the discharge of his duties except when required to do so by the directors or by any court of law and except so far as may be necessary in order to comply with any of the provisions in these presents.

	Subscriber Details				
S. NO	Name, Address, Description and Occupation	DIN/PAN/Passport Number	Place	DSC	Dated
1	NAME: PRAFUL NARENDRA DESHMUKH S/O: NARENDRA NILKANTH DESHMUKH ADDRESS: 501,SHRIKRISHNA RESIDENCY,SHIVAJI NAGAR,DHARAMPETH, NAGPUR-440010 DOB: 27/03/1982 OCC: BUSINESS	03039307	NAGPUR	PRAFUL NARENDRA DESHMUKH Digitally signed by PRAFUL NARENDRA DESHMUKH Date: 2019.01.04 13:16:39 +05'30'	04/01/2019
2	NAME: SANJIV VINODKUMAR SAHU S/O: VINODKUMAR KISANKUMAR SAHU ADDRESS: 198, SAKET,DHARAMPETH EXTENSION, DHARAMPETH,NAGPUR-440010 DOB:15/03/1961 OCC:BUSINESS	ACPPS5151F	NAGPUR	SANJIV VINODKUMAR SAHU Digitally signed by SANJIV VINODKUMAR SAHU Date: 2019.01.04 13:17:19 +05'30'	04/01/2019

Signed Before Me						
Name		Address, Description and Occupation	DIN/PAN/ Passport Number/ Membership Number	Place	DSC	Dated
ACA	NAYAN B DEOLASI	FLAT NO B-1106,RACHANA MEGHSPARSH APT,JAITALA ROAD,BHAMTI,NAGPUR-440036 OCC: CA	180938	NAGPUR	NAYAN BHARAT KUMAR DEOLASI Digitally signed by NAYAN BHARATKUMAR DEOLASI Date: 2019.01.04 13:17:49 +05'30'	04/01/2019

Checkform Modify

AUTHORIZED SIGNATORY

भारतीय गैर न्यायिक

भारत INDIA

रु. 500 FIVE HUNDRED RUPEES

पाँच सौ रुपये Rs. 500

सत्यमेव जयते

INDIA NON JUDICIAL

महाराष्ट्र MAHARASHTRA ◑ 2023 ◑

NOTARIAL REG
ENTRY No. 1778
DATE 24/7/2023

S.R. MATTA
NOTARY
NAGPUR DIST. (M.S.)
INDIA
Reg. No. 5776
GOVT. OF INDIA

NAGPUR TREASURY
BY 864349
21 JUL 2023
Stamp Head Clerk / Sr. Clerk

GENERAL POWER OF ATTORNEY

BE IT KNOWN TO ALL that we, **Prafulved Infra & Praful Deshmukh Associates 5 LLP,** a Partnership firm (Income Tax PAN- ABDFP7844F) having its office at Flat No. 501, Plot no.14-A, Shrikrishna Residency, Dahake Lay-out, Khare Town, Dharampeth, Nagpur-440010 acting through its Partners, **1) Prafulved Infra Private Limited,** a Company incorporated under the Indian Companies Act, (Income tax PAN – AAKCP2972M) having its office at Flat No. 501, Plot no.14-A, Shrikrishna Residency, Dahake Lay-out, Khare Town, Dharampeth, Nagpur-440010 acting through its Director, **Shri. Rahul S/o Rajendra Deshmukh** aged about 28 years, occupation Business R/o Plot no. 115, Priti Apartments, near Water Tank, Laxmi Nagar, Nagpur-440022,(AADHAR NO.- 2774 1827 2621) and **2) Shri. Praful S/o Narendra Deshmukh** aged about 40 years, Occupation Business, R/o, Flat No. 501, Plot no. 14-A, Shrikrishna Residency, Dahake Lay-out, Khare Town, Dharampeth, Nagpur-440010, (Income Tax PAN – AHWPD6985A; Aadhar UIN-218172038209) hereinafter shortly termed as **"THE EXECUTANT",** do hereby appoint and constitute **Shri. Praful S/o Narendra Deshmukh** aged about 40 years, Occupation Business, R/o, Flat No. 501, Plot no. 14-A, Shrikrishna Residency, Dahake Lay-out, Khare Town, Dharampeth, Nagpur-440010, (Income Tax PAN – AHWPD6985A; Aadhar UIN-218172038209) as our attorney or agent with full authority and powers to do and execute all the following acts, deeds and things on our behalf and for us.

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१) मुद्रांक विक्री नोंद वही अनुक्रमांक ९६१९८ /दिनांक २१/७/२०२३

२) दस्ताचा प्रकार २५८

३) दस्त नोंदणी करणार आहेत का ? होय/नाही

४) मिळकतीचे थोडक्यात वर्णन प्रफुल वेद इन्फ्रा एन्ड प्रफुल देशमुख असोसिएटस 5 LLP

५) मुद्रांक विकत घेणाऱ्याचे नाव व सही

६) हस्ते असल्यास [illegible]

७) दुसऱ्या पक्षकाराचे नाव रवि

८) मुद्रांक शुल्क रक्कम ५००/-

विजय खोकले	मुद्रांक विक्रेता, ला.क्र१७/८६ कोड क्र. ४६०१००६ जिल्हाधिकारी परिसर, त.कार्यालय, नागपूर (शहर)

ज्या कारणासाठी त्यांनी मुद्रांक खरेदी केला त्यांनी त्याच कारणासाठी मुद्रांक खरेदी केल्यापासून ६ महिन्यात वापरणे बंधनकारक आहे.

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I. **WHEREAS,** the Executant is a partnership Firm in the name of Prafulved Infra & Praful Deshmukh Associates 5 LLP. and is carrying on business of Development work of "Mixed Use Commercial Complex at NMC ORANGE CITY STREET PROJECT Plot No. 5 (Near Khamla Bazar Square), Nagpur on Design-Build-Finance-Operate and Sale (DBFOS) basis as per the Tender awarded to the Firm by Nagpur Municipal Corporation, Nagpur. on the terms and conditions contained in a Deed of Partnership dated.8-6-2023:AND

II. **WHEREAS,** Under the said Deed and we have also decided that Shri. Praful S/o Narendra Deshmukh will act as the Managing Partner as he is mostly looking after the business of the said firm :AND

III. **WHEREAS,** we, the Partners of the firm are not able to attend regularly at one time to the business of the said partnership because of either our pre-occupations or other reasons and we have full confidence in Shri. Praful S/o Narendra Deshmukh :AND

IV. **WHEREAS,** in order to enable him to carry on the said business and to do all acts and things required to be done alone and without being required to approach every time for our consent or authority or signatures, we have proposed to appoint him as our express and authorised attorney or agent to do all acts and things hereunder mentioned as under :

1. To carry on the business of the said partnership Firm M/s. Prafulved Infra & Praful Deshmukh Associates 5 LLP in terms of the said Deed of Partnership dated.8-6-2023..

2. To buy and sell all goods and merchandise connected with the business of the said Firm and to pay and receive moneys in respect thereof.

3. To appoint managers, accountants, clerks, peons and other persons for carrying on different types of work in connection with the said business. to pay their salaries, wages and other emoluments as are normally paid and if necessary to remove or dismiss any one or more of them as occasion may require.

4. To acquire any premises on rent or other terms for carrying on the business of the Firm, including godowns, store rooms for storing goods.

5. To open one or more accounts in one or more Banks in the name of the Firm and to operate the same as well as those at present existing To close any such account or accounts if necessary.

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6.. To draw, accept, negotiate, par or satisfy any bills of exchange promissory notes, cheques, hundies, drafts, orders for payment or delivery of money, securities for goods, bills of lading railway receipts and other negotiable instruments which the said attorney as partner may think necessary or desirable in the course of the business of the Firm and the promotion thereof

7. To sign all applications and papers required for obtaining different kind of licenses and permits from Government, Municipal, Revenue, local authorities and any other competent authorities or offices for the purpose required to be obtained under the law.

8. To borrow moneys as may be required from time to time for the business of the company from any bank by way of overdraft or cash credit account without security or with security by way of hypothecation or pledge of the goods and moveable assets of the Firm or by mortgage, equitable or legal of any Immoveable property of the Firm or by way of drawing hundies or in other way as possible and with such rate of interest and on such terms and conditions as the said Attorney may think it.

9. To take any moveable property required for the business of the Firm on hire or on hire purchase basis on such terms as the said attorney may think proper and to enter into and execute agreements in that behalf.

10. To purchase, sale or take on lease or otherwise acquire any Immoveable property consisting of land or land with building or a flat or other premises in a building on ownership basis or any godown, store room and other premises required for effectually carrying on the business of the Firm.

11. To sell or give on lease or otherwise dispose of any moveable or Immoveable property or assets of the Firm if not required by the Firm for its business or if it is profitable to do so on such terms as the said attorney may think fit.

12. To buy and sell shares, bonds and other securities of any Company. Govt. Corporations, Local authority or any Government as may be deemed necessary in the interest of the Firm.

13. To demand, receive, recover, collect all debts outstandings, trade dues and all moneys or property due and payable to the Firm and to pass receipts for the same.

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14. For all or any of the purposes herein contained to enter into, sign and execute agreements, deeds of any nature, such as deed of conveyance, Sale Deed, deed of mortgage, Correction Deed, deed of lease or sub lease, hire purchase agreement, Development Agreement or any other deed or document required to be executed by or in favour of the Firm.

15. To lodge for registration all deeds executed by the said attorney or in favour of the Firm and which require registration under the law and to do all other acts and things required for completing registration and admit the registration thereof.

16. To commence and prosecute any suit, or other civil or criminal proceedings on legal action in any civil or criminal court of law or Tribunals or Govt. Offices having quasi-judicial powers or forums and to recover moneys or other property moveable or immoveable, to establish any legal rights or to enforce any agreement or to claim and recover damages as may be necessary for the benefit of the business of the Firm.

17. To defend any suit or other legal proceedings against the Firm and its partners for recovery of any claim or money or property or any other cause of action.

18. For the purposes aforesaid, to sign, declare, verify or affirm plaints, Written statements of defence, petitions, affidavits and other papers and applications as may be required from time to time.

19. To appoint advocates as and when required for advice or for conducting any matter of litigation or dispute in which the firm is involved and to pay their fees.

20. To insure the property of the firm for any risk and to pay the premium as and when it becomes due.

21. To appear before any Court, Judge. Government or other officer or author and to represent the firm in connection with any matter concerning the firm.

22. To pay Income tax and other taxes payable by the Firm and for that purpose to file Income tax returns and produce Books of Account for assessment, and other documents to appear before Income Tax Officer and other Officers, to file appeals and other applications against any orders passed by the Income Tax Officer and other Officers or Appellate authority and for that purpose to engage Chartered Accountant, Tax Consultants, Advocates and other experts.

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23. To write and maintain accounts of all other dealings and business or the bum and for that purpose to maintain necessary Books of Accounts and to get them audited by a Chartered Accountant.

24. To agree to refer any dispute between the Firm and other party in any transaction or any claim made by or against the Firm for moneys or otherwise to arbitration of one or more arbitrators and to attend such arbitration on behalf of and to represent the Firm and file all statements or claim, defence and evidence before the Arbitrator or Arbitrators.

25. To compound, compromise or settle any claim due to or due by the Firm from or to any person on such terms and conditions as the said attorney may think fit or to abandon or waive any claim including a claim in any suit or legal proceeding.

26. To empower any other person authorising him to do any or all acts for which the said attorney is authorised by us.

27. To attend meetings of the shareholders of any company or corporation in which the Firm is a shareholder or any one or more partners of the Firm is or are a shareholder or shareholders as such and to exercise all the rights of the share holder in such meeting or otherwise.

28. And generally to do and execute all acts and deeds and things as are necessary to be done or executed for the business of the said Firm and which we would be required to do personally in the absence of this power of Attorney.

29. We hereby promise to affirm all things acts done by my/our lawful attorney as stated by me/us and shall always be deemed to be ratified and binding on us and We further undertake to ratify them expressly.

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IN WITNESS WHEREOF we have signed this power of attorney at Nagpur on this **24th** day of **July 2023** in presence of the attending witnesses after reading and understanding the same which is according to our instructions and desire.

WITNESSES :

1. _____
(Sandeep. G. Dharsel)

1. _____
(Rahul S/o Rajendra Deshmukh)
Director for
PrafulVed Infra Private Limited

2. _____
(Devaanandan P. Subbaiyyal)

2. _____
(Praful Narendra Deshmukh)
Partners for
Prafulved Infra &
Praful Deshmukh Associates 5 LLP
EXECUTANT

Signed as an acceptance of the above said power of attorney.

_____
(Praful Narendra Deshmukh)
(POWER OF ATTORNEY HOLDER)

S.R. MATTA NOTARY NAGPUR DIST. (M.S.) INDIA Reg. No. 6776 GOVT. OF INDIA

NOTARY MRS. S. R. MATTA NAGPUR DISTT. (M.S.) INDIA REGD. No. 6776 GOVT. OF INDIA

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ATTESTED
Mrs. S.R. MATTA
ADVOCATE & NOTARY
918-B, Clarke Town, Nagpur-14

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महाराष्ट्र MAHARASHTRA ◑ 2022 ◑ 11AA 291644

16 DEC 2022

NOTARIAL REG.
ENTRY NO. 3/061
DATE 20/12/2022

Appendix A5

Power of Attorney for Lead Member of Consortium

Whereas the Nagpur Municipal Corporation, (the "NMC") has invited bids for the project "Development of NMC Mixed Use Commercial Complex (the "Project Whereas, **Prafulved Infra Pvt Ltd and Praful Narendra Deshmukh** Proprietor (collectively the "Consortium") being Members of the Consortium are Interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and NMC to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's bid for the Project and its execution.

NOTARY Suresh Sadashiv Meshram Nagpur Maharashtra India Regn. No. 15840 My Term Expires on 05-12-2024 GOVT. OF INDIA

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

We, **Prafulved Infra Pvt Ltd having our registered office at Ltd 501, Shrikrishna Residency, Shankar Nagar ,Dharampeth ,Nagpur Maharashtra,440010, M/s. Praful Narendra Deshmukh Proprietor, having our registered office at 501, Shrikrishna Residency, Shankar Nagar, Dharampeth, Nagpur Maharashtra,440010**, and (Hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorize**Prafulved Infra Pvt Ltd, having its registered office at at 501, Shrikrishna**

फक्त प्रतिज्ञापत्रासाठी

1) मुद्रांक विक्री नोंदवही अनुक्रमांक..... 32986
दिनांक..... 20-12-2022

2) मुद्रांक विकत घेणाऱ्याचे नाव.....
रहिवासाचा पत्ता व सही.....

.....

3) परवानाधारक मुद्रांक विक्रेत्याची सही
व परवाना क्रमांक तसेच
मुद्रांक विक्रीचे ठिकाण

20-12-2022

सुबोध एस. ढेंगरे
स्टॅम्प वेंडर ला.नं. 7/96
जिल्हाधिकारी परिसर,
तहसील कार्यालय, नागपूर
फोन नं. 4601059

ज्या कारणासाठी ज्यांनी मुद्रांक खरेदी केला त्यांनी त्याच कारणासाठी मुद्रांक खरेदी केल्यापासून ६ महिन्यात वापरणे बंधनकारक आहे

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Residency,Shankar Nagar ,Dharampeth ,Nagpur Maharashtra, 440010, being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney") and hereby irrevocably authorize the Attorney (with power tosub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the Concession/ Contract, during the execution of the Project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, accept theLetter of Award, participate in bidders' and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with NMC, and/ or anyother Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium's bid for the Project and/ or upon award thereof till the Development Agreement is entered into with NMC.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to andin exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS 20 th DAY OF December 2022.

For

Director
(Prafulved Infra Pvt Ltd.
501, Shrikrishna Residency,
Shankar Nagar ,Dharampeth ,
Nagpur Maharashtra,440010)

ATTESTED
20.12.2022
Suresh Sadashiv Meshram
Advocate & Notary
Rani Durgavati Square, NIT Complex, Flat No.A-5, 1st Floor
Nagpur-17 Maharashtra

For

Proprietor
Praful Narendra Deshmukh
501, Shrikrishna Residency,
Shankar Nagar, Dharampeth,
Nagpur Maharashtra,440010

(Executants)

Witnesses:

1.Akash Ashok Rangari _____

2.Nilesh Umesh Pandit _____

PRAFULVED INFRA & PRAFUL DESHMUKH ASSOCIATES 5 LLP
LLPIN: - ACB-4918
Add F NO 501, Shrikrshna Residency Dharampeth Nagpur Nagpur MH 440010 IN
Email Id: prafuldeshmukh9@gmail.com

CERTIFIED TRUE COPY OF RESOLUTION NO.1 PASSED AT THE MEETING OF PARTNERS OF THE LLP PRAFULVED INFRA & PRAFUL DESHMUKH ASSOCIATES 5 LLP HELD AT THE REGISTERED OFFICE OF THE LLP ON FRIDAY, 21ST JULY 2023 AT 11:00 A.M.

AUTHORIZATION FOR ENTERING INTO AGREEMENT OF DEVELOPMENT OF MIXED COMMERCIAL COMPLEX

The Chairman informed the Partners that there is need to authorize someone to execute the necessary documents for development of mixed commercial Complex at Plot No. 5 of Orange City Street Project, Near Khamla Bazar Square, Nagpur. He further recommended his ownname and after Due discussion following resolution was passed:

"RESOLVED THAT, Mr. Prafull Deshmukh, Designated Partner of the LLP be and is hereby authorized for the execution and signing of the development of mixed commercial complex at Plot No. 5 of Orange City Street Project, Near Khamla Bazar Square, Nagpur."

"RESOLVED FURTHER THAT, Mr. Prafull Deshmukh, Partner of the LLP be and is hereby authorized to negotiate, finalize and execute the above-mentioned agreements and documents on behalf of the LLP and do all such acts, matters, deeds and things and to take all steps and do all things and give such directions as may be required, necessary, expedient or desirable for the purpose of giving effect to this resolution."

// CERTIFIED TRUE COPY //
For, Prafulved Infra & Praful Deshmukh Associates 5 LLP,

Prafulved Infra & Praful Deshmukh Associates 5 LLP

PRAFULVED INFRA PVT. LTD. NAGPUR

Prafull Narendra Deshmukh
Designated Partner
DIN: 03039307

Rahul Deshmukh **Prafull Narendra Deshmukh**
Through, Prafulved Infra Private Limited; Designated Partner
DIN: 08056719 DIN: 03039307

SARANG KALE
ADVOCATE
DE/10, Yogiraj-3, Plot No.101,Near Shivaji Nagar Park,
Shivaji Nagar,Nagpur-440010 | 8055547858 | sarangmkale@gmail.com

TO WHOM SO EVER IT MAY CONCERN

M/s. Prafulved Infra & Praful Deshmukh Associates 5 LLP, a partnership firm through its General Power of attorney dt. 24-07-2023 has given Mr. Praful S/o Narendra Deshmukh full empowerment and authorization for the execution and signing of the Development Agreement as well as all the documents required for the Development work of "Mixed Use Commercial Complex at NMC ORANGE CITY STREET PROJECT Plot No. 5 (Near Khamla Bazar Square), Nagpur on Design-Build-Finance-Operate and Sale (DBFOS) basis which has been awarded to M/s. Prafulved Infra & Praful Deshmukh Associates 5 LLP by Nagpur Municipal Corporation, Nagpur.

I am of the opinion that any document signed by Mr. Praful S/o Narendra Deshmukh on behalf of M/s. Prafulved Infra & Praful Deshmukh Associates 5 LLP will be fully enforceable as per the law.

Place : Nagpur

Dated : 24-07-2023

SARANG KALE
ADVOCATE
Reg.No.MAH/6859/2015
DE/10, Yogiraj-3, Plot No.101,
Near Shivaji Nagar Park, Shivaji Nagar,
Nagpur-440010 (M) : 8055547858

SARANG KALE
Reg.No.
MAH/6859/
2015
ADVOCATE

SARANG KALE
ADVOCATE
Reg.No.MAH/6659/2015
DE/10, Yogiraj-3, Plot No.101,
Near Shivaji Nagar Park, Shivaji Nag-
Nagpur-440010 (M) : 8655547858

SARANG KALE
Reg.No.
MAH/6659/
2015
ADVOCATE



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महाराष्ट्र MAHARASHTRA ◑ 2022 ◑

NAGPUR TREASURY
11AA 291643
16 DEC 2022
Stamp Head Clerk / Sr. Clerk

NOTARIAL REG.
ENTRY NO. 31062
DATE 20/12/2022

Appendix A4

Power of Attorney for signing of Application

Know all men by these presents, We, **Prafulved Infra Pvt Ltd** do hereby irrevocably constitute, nominate, appoint and authorize Mr. **Praful Narendra Deshmukh**, son of **Narendra Deshmukh** and presently residing at **501,Shrikrishna Residency, Shankar Nagar ,Dharampeth ,Nagpur Maharashtra,440010**, who is presently employed with us/ the Lead Member of our Consortium and holding the position of Director, as our true and lawful attorney (hereinafterreferred to as the "**Attorney**") to do in our name and on our behalf, all such acts,deeds and things as are necessary or required in connection with or incidental tosubmission of our bid for the Project – Development of NMC Mixed Use Commercial Complex, being developed by Nagpur Municipal Corporation ("**NMC**") including but not limited to signing and submission of all applications,bids and other documents and writings, participate in bidders' and other conferences and providing information / responses to NMC, representing us in all matters before NMC, signing and execution of all contracts including the Development agreement and undertakings consequent to acceptance of our bid, and generally dealing with NMC in all matters in connection with or relating to or arising out of our bid for the said Project and/or upon award thereof to us and/or till the entering into of the Development agreement with NMC.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

NOTARY
Suresh Sachchiv Meshram
Nagpur
Maharashtra India
Regn. No. 15840
My Term Expires on 05-12-2024
GOVT. OF INDIA

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फक्त प्रतिज्ञापत्रासाठी

1) मुद्रांक विक्री नोंदवही अनुक्रमांक..... 32985
दिनांक..... 20-12-2022

2) मुद्रांक विकत घेणाऱ्याचे नाव.....
रहिवासाचा पत्ता व सही.....

3) परवानाधारक मुद्रांक विक्रेत्याची सही व परवाना क्रमांक तसेच मुद्रांक विक्रीचे ठिकाण

20-12-2022

सुबोध एस. ढेंगरे
स्टॅम्प व्हेंडर ला.नं.7/96
जिल्हाधिकारी परिसर,
तहसिल कार्यालय, नागपूर
फोन नं. 4601059

ज्या कारणासाठी ज्यांनी मुद्रांक खरेदी केला त्यांनी त्याच कारणासाठी मुद्रांक खरेदी केल्यापासुन ६ महिण्यात वापरणे बंधनकारक आहे

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IN WITNESS WHEREOF WE, **Prafulved Infra Pvt Ltd**, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON 14th

DAY OF November 2022

For

(Director)

(Prafulved Infra Pvt Ltd501, Shrikrishna Residency, Shankar Nagar, Dharampeth, Nagpur Maharashtra,440010)

Witnesses:

1.Akash Ashok Rangari

2.Nilesh Umesh Pandit

Accepted

Notarized

(Signature, name, designation and address of the Attorney

NOTARY Suresh S. Meshram Nagpur (M.S.) India Regn. No 15840 GOVT. OF INDIA

NOTARY Suresh Sadashiv Meshram Nagpur (M.S.) INDIA Regn. No. 15840 GOVT. OF INDIA

ATTESTED

20.12.2022

Suresh Sadashiv Meshram
Advocate & Notary
Rani Durgawati Square, [illegible]
Complex, Flat No. [illegible]-5, 1st [illegible]
Nagpur-17 Maharashtra

NOTARIAL NOTARIAL NOTARIAL NOTARIAL NOTARIAL

CONFIRMATION FOR REPRESENTATION AND WARRANTIES

PRAFULVED INFRA & PRAFUL DESHMUKH ASSOCIATES 5 LLP
LLPIN :- ACB - 4918

To,
Executive Engineer (Projects)
Nagpur Municipal Corporation,
Nagpur-440001.

Subject-Confirmation of article 8 representation and warranties as specified in draft development agreement.

Sir,

We hereby confirm to the article 8 Representation & warranties as specified in draft development agreement uploaded for bidding of development of NMC commercial complex project on plot no 5 of orange city street project of NMC at Nagpur on design, built, finance, operate and sell mode.

Yours' Faithfully

Prafulved Infra & Praful Deshmukh Associates 5 LLP

PRAFULVED INFRA &PRAFUL DESHMUKH 5 LLP

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14-A, Shri Krishna Residency, Khare Town, Dharampeth, Nagpur-440010
P.H. 0712-2520525 | e-mail : prafuldeshmukh9@gmail.com

Volume II:

DRAFT DEVELOPMENT AGREEMENT (DA)

FOR

DEVELOPMENT OF NMC MIXED USE COMMERCIAL COMPLEX PROJECT ON PLOT NO. 5 OF ORANGE CITY STREET PROJECT AT NAGPUR ON DESIGN, BUILD, FINANCE, MAINTAIN and SALE MODE.

Project Proponent:

NAGPUR
MUNICIPAL CORPORATION

Issued by:
Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg, Nagpur.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com

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DEVELOPMENT AGREEMENT

This Development Agreement mutually agreed and entered into on this .....day of....., Two Thousand and Twenty Two at NMC, Nagpur.

BETWEEN

Nagpur Municipal Corporation, the urban local body for the city of Nagpur, duly established under and functioning as per the MMC Act, 1949 ("**Act**") through its Municipal Commissioner, having its office at Nagpur Municipal Corporation, Civil Lines, Mahanagar Palika Marg, Nagpur (hereinafter referred to as "**NMC**", which expression shall, unless excluded by or repugnant to the context or meaning thereof, mean and include its administrators, successors and assigns) OF ONE PART;

AND

_____ a company/LLP incorporated under the Companies Act, 2013/LLP Act 2008 and having its registered office at ~_____ (hereinafter referred to as "**Developer**") which expression shall where context so admits be deemed to include its successor or administrators and permitted assigns or assigns) of the OTHER PART;

NMC and the Developer are hereinafter referred to individually as the "**Party**" and collectively as the "**Parties**".

WHEREAS;

1. NMC has decided to develop the NMC Mixed Use Commercial Complex Project at Nagpur on the Plot No. 5 of the Orange City Street Project, starting from Wardha Road up to Jaitala, Nagpur.

2. Currently NMC proposes to develop as a component of this Orange City Street Project, a Mixed Use Commercial Complex with requisite parking at the NMC Plot No. 5 site at Nagpur.

3. The plot area is 7534 square metres of which the FSI permitted by the Town Planning Department is 2.75 as per the UDCPR 2020 and the restriction on height as approved by AAI is 46.32 metres which generally allows a building above existing ground level. The developer has to develop the project within this framework.

4. The prospective developer has to undertake its own designing & planning for the Project as per the prevalent development control rules and guidelines.

PRAFULVED INFRA PVT. LTD. NAGPUR

5. The elevational characters planned by NMC for the Project should be maintained by the prospective developer to maintain the similarity for the entire OCSP.

6. The characteristics of the Elevational Drawings can be as per the developers planning but commensurate with the Elevational Drawings provided in the Volume III of the bidding documents.

7. NMC now desires to undertake the project on Design-Build-Finance-Maintain and Sale (DBFMS) basis under which the Developer shall propose its own Designs, Finance, Construct, Maintain and undertake Marketing & Sale of the various components of the project.

8. NMC has carried out a competitive bidding process for the selection of a suitable developer to implement the Project (defined hereinafter), and issued a Request for Proposal ("**RFP**") dated [●] inviting proposals from the interested developers. Upon evaluation of the proposals received, NMC accepted the proposal of the Successful Bidder and issued Letter of Award ("LOA") No.[●] dated_____to the Successful Bidder and invited it to *interalia* execute this Development Agreement for implementation of the Project in accordance herewith.

9. NMC and the Developer are executing this Development Agreement to award to the Developer the development and sales rights including right and obligation with regards to designing, planning, financing, construction, operations and maintenance, marketing and sales of the various components of the Mixed Use Commercial Complex and requisite parking of the Project and the Developer has agreed to enter into this Development Agreement for execution of the Project on DBFMS basis subject to and on the terms, conditions and covenants set forth hereinafter.

NOW THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Development Agreement, the sufficiency and adequacy of which is hereby acknowledged, and intending to be legally bound thereby, the Parties agree as follows:



Article 1. DEFINITIONS & INTERPRETATIONS

In this Agreement, unless the context or meaning otherwise requires, the following words or expressions used in the Agreement (including the recitals) shall have the meaning as ascribed hereunder:

1.1 Definitions

1. **Affected Party** shall mean the Party claiming to be affected by a Force Majeure Event in accordance with Article 12.1.

2. **Agreement / Development Agreement** shall mean this Development Agreement, its Recitals, and the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement.

3. **Applicable Laws** shall mean all laws brought in force by the Government of India or the Government of Maharashtra including the constitution of India, any law, orders, rules, regulations, byelaws, statutory orders, executive orders, decrees, judicial decisions, notification, or other similar directives made pursuant thereto, injunctions, writs and orders of any Court or legally binding instructions, policies, guidelines, codes, or standards (including environmental standards) issued by the executive, legislative, judicial or administrative entity, in India or any of the above as amended from time to time, including currency restrictions, any form of delegated legislation, a treaty and a directive or regulation made by virtue of powers conferred by the international treaty, which are applicable to this Agreement and to the Parties and as may be in force and effect during subsistence of this Agreement.

4. **Applicable Permits** shall mean all clearances, licenses, permits, authorizations, consents, no objection certificates and approvals under or pursuant to the Laws, required to be obtained and maintained by the Developer in connection with the construction, operation & maintenance and sales of the Project during the subsistence of this Development Agreement.

5. **Approval** shall mean the approval given in writing by NMC or any other competent authority required from time to time for implementation of the Project including for undertaking construction and sales.

6. **"Arbitration Act"** means the Arbitration and Conciliation (Amendment) Act, 2019 as amended from time to time and shall include modifications to or any re-enactment thereof as in force from time to time;

7. "**Associate**" or "**Affiliate**" shall mean, in relation to either Party {and/or Consortium Members}, a person who controls, is controlled by, or is under the common control with such Party {or Consortium Member} (as used in this definition, the expression "**control**" means, with respect to a person which is a

company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person or the power to direct the management and policies of such person by operation of law, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise);

8. "**Bank**" shall mean any bank from the list of Scheduled Banks approved by NMC;

9. **Bid** means the documents in their entirety comprised in the bid submitted by the Selected Bidder in response to the Request for Proposals and any other clarifications/amendments/corrigenda submitted by the bidder in accordance with the provisions thereof.

10. **Bid Security** means the security provided by the Bidder to NMC along with the Bid, in accordance with the Request for Proposal, and which is to remain in force until substituted by the Performance Security.

11. **"Capital Expenditure"** shall mean all capital expenditure incurred by the Developer in connection with the Project.

12. **Change in Law** shall have the meaning assigned to it in Article 17.

13. **Commencement Date** shall be the date of the Commencement Order issued by NMC. The Commencement Order shall be issued within one month from the Effective Date subject to Clause 2.2 A of this Development Agreement.

14. **Commencement Order** shall mean the commencement letter issued by NMC upon approval of construction plan consistent with the Detailed Project Report.

    Commencement Order shall be issued by NMC within maximum 30 days from Effective Date and the Construction Period of 42 months shall commence.

    In the event that the Project complies with the NMC guidelines, approved designs and this Agreement including but not limited to Volume 3 of this bidding document, the Independent Engineer shall submit a compliance report to the Authority for information. The Authority may, if required, conduct a joint inspection of the Project Asset with the Independent Engineer. Upon finding the aforesaid report satisfactory, the Authority shall direct the Independent Engineer to issue a notice to the Developer (the "Commencement Notice").

PRAFULVED INFRA PVT. LTD NAGPUR

15. **Completion Certificate** shall mean the certificate issued by the Independent Engineer/Monitoring Agency to the Developer on the completion of Construction Works of the Project as per the construction plan and approved DPR. This shall be issued on completion of the project in entirety within construction period of 42 months and on Independent Engineer completing all the necessary tests to certify the completion of the Project Facilities. Completion as per RERA Act shall also be the responsibility of the Developer.

    The Completion Certificate referred to in this definition is the certificate to be issued by the NMC appointed Independent Engineer certifying the completion of the Construction Works as per the approved DPR and within the timeframe of 42 months.

    After the successful completion of the project i.e. Sales of all the constructed Project Components and payment of 100% NMC Revenue Share, a Completion Certificate would be issued by NMC to the Developer indicating the completion of the contract.

16. **Conditions Precedent** shall have the meaning ascribed to it in Article 2.

17. **Commercial Development** shall mean the development which shall include but shall not be limited to all the amenities and facilities including:

    a. Hypermarkets & Anchor Shops
    b. Showrooms & Shops
    c. Commercial Offices & Conference Hall
    d. Multiplex/Miniplex
    e. Hotels/Restaurants
    f. Residential Tenements
    g. Requisite Parking
    h. Such Commercial facilities shall conform to the designs approved for the Project Site by Town Planning Department, NMC and shall be developed as per the Detailed Project Report to be submitted by the Developer and to be approved by NMC.
    i. Such Commercial Facility shall adhere to the RERA and Green building norms at all times.

18. **Commercial Operation Date (COD)** shall mean as completion of project at such stage at which occupancy certificate for whole or part of the occupiable components of building are completed and occupancy certificate of the same is issued by the competent authority.

a. When Occupancy Certificate is issued only for a part of the Project, then it shall be construed only as Provisional COD.

b. Complete COD shall be considered by NMC only when all the components of the Project are completed as per the GFC Drawings and the same are approved by the Independent Engineer and the Occupancy Certificate for the complete Project is issued.

c. The date on which the first occupant occupies any of the project components shall be referred to as the "COD or Commercial Operation Date".

19. **Completion Notice:** Upon the completion of the design, development, construction and other activities, but prior to seeking completion certificate from Authority, in relation to the Project, in accordance with the terms of this Agreement, as may be required to bring the Project into commercial operation, the Developer shall intimate Independent Engineer in writing, together with all Applicable Permits required for the purposes of commencement of commercial operations ("Completion Notice"). Independent Engineer shall, within 15 (fifteen) Business Days of the receipt of the Completion Notice, inspect the Project to ascertain its compliance

20. **Construction Period** means the period beginning from the date of issuance of the Commencement Letter and ending on the COD;

21. **Construction Works** shall mean all works and things required to be constructed by the Developer, pursuant to approved construction plan and DPR.

22. **Cure Period** shall have the meaning ascribed to it in Clause 13.1:

23. **Damages** shall have the meaning set forth in Clause 2.3 and 2.4.

24. **Developer** shall mean the Successful Bidder who has signed this Development Agreement with NMC and defined as such in the array of Parties in the Recitals to this Agreement.

25. **Development and Sales Rights** shall mean the right to design and engineer, procure, finance, construct, install, commission, operate & maintain the Project Facilities till complete sales and market & undertake sales from the Project and to exercise and enjoy the rights, power, authorization and entitlements as set forth in this Agreement and to transfer the Project Facilities to NMC on Termination, in accordance with the provisions of this Agreement.

26. **Development and Sales Period** shall mean the period of 84 (Eighty Four) months inclusive of the construction period of 42 (Forty Two) months commencing from the Commencement Date, during which the Developer shall Design, Build, Finance, Operate & Maintain and sell the various components of the Project. The Development Agreement shall be valid during the Development and Sales Period if not terminated earlier.

27. **Dispute** mean any dispute, difference or controversy of whatsoever nature, howsoever arising,under or out of or in relation to this Agreement (including its interpretation) including the validity, breach or termination thereof and so notified by one Party to the other Party.

28. **Dispute Resolution Procedure** shall mean the procedure for resolution of Dispute between the Parties set forth in Article18.

29. **Detailed Project Report (DPR)** shall mean the report to be prepared by the Developer and duly approved by NMC containing the detailed master plan, project plan, architecture plan, engineering plans, project construction plan including the time-lines for achievement of construction milestones and the Operation and Maintenance plan. This report shall be inclusive, but not shall be limited to, the appreciation of individual Project Facilities connectivity, market study, area statement, land use pattern development mix, phase wise construction milestone, infrastructure development, economic and financial analysis, environmental and social impact assessment and the detailed technical drawings of the Project Site prepared by the Developer and approved by NMC.

30. **Development Control Regulation (DCR)** shall mean the Unified Development Control and Promotion Regulations 2020 and it's up-dations from time to time, State Government Gazette Notifications and any other documents affecting the Project. The UDCPR which is in force on the date of submission of the proposals shall be the base UDCPR and further up-dations in the same shall be considered.

31. **"Document" or "Documentation"** means documentation printed or in written form, tapes, discs, drawings, computer programmes, writings, reports, photographs, cassettes, or expressed in any other written, audio or visual form;

32. **"Effective Date"** shall mean the date on which this Development Agreement has been executed by the Parties

33. **"Emergency"** means a condition or situation that is likely to endanger the security of the individuals on or about the Project including users thereof or which poses an immediate threat of material damage to the Project or part thereof;

34. **Encumbrance** means, in relation to the Project Site, any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligation where applicable herein but excluding utilities.

35. **"Equity" means** the sum expressed in Indian Rupees representing the equity share capital of the Developer and shall include the funds advanced by any member of the Consortium or by any of its shareholders to the Developer for meeting the equity component of the Total Project Cost.

36. **Event of Default** shall have the meaning ascribed in Article 13.

37. **"Facility"** shall mean the new mixed use commercial complex and common areas to be designed, financed, constructed, and developed by the Developer at the Project Site as per the terms and conditions of this Agreement.

38. **Financial Close** means the fulfilment of all conditions precedent to the initial availability of funds under the Financing Documents as specified in Clause 10.6.1.

39. **Financial Model** means the financial model adopted by Lenders, setting forth the capital and operating costs of the Project and revenues thereof on the basis of which financial viability of the Project has been determined by the Lenders, and includes a description of the assumptions and parameters used for making calculations and projections therein.

40. **Financial Package** means the financing package indicating the total capital cost of the Project and the means of financing thereof, as set forth in the Financial Model and approved by the Lenders, and includes Equity, all financial assistance specified in the Financing Agreements, and Equity support, if any.

41. **Financing Document** shall mean any agreement, note, bond, indenture, credit agreement, debt repayment or refinancing instrument, reimbursement agreement, mortgage, security agreement, guarantee, registration statement, disclosure statement, subordination agreement, partnership agreement, participation agreement or other financing document, including any modification, extensions, renewals or replacement, relating to the interim or long term financing (or any refinancing)of the Total Project Cost of the Project which are to be executed between Developer and the Lenders or other relevant parties thereto, without creating any right or interest on project land and assets in favor of any third party or lender or financer or financial institution (private or government).

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42. **Financial Year** shall mean the period commencing from April 1st of any given year to March 31st of the immediately succeeding year. It is clarified that first accounting year shall be the period commencing from the COD and ending on the 31st (thirty-first) day of March of the next calendar year.

43. **Force Majeure** shall have the meaning specified in Article 12.

44. **"Good Industry Practice"** means those practices, methods, techniques, standards, skills, diligence and prudence which are generally and reasonably expected of and accepted internationally from a reasonably skilled and experienced person(s) engaged in the same type of undertaking as envisaged under this Agreement and acting generally in accordance with the provisions of the Applicable Laws, and would mean good engineering practices in the design, engineering, procurement, construction and project management and which would be expected to result in the performance of its obligations by the Developer in accordance with this Agreement, Applicable Laws, Applicable Permits, reliability, safety, environment protection, economy and efficiency;

45. **Government Agency** shall mean the Government of India or Government of Maharashtra or NMC, department, commission, board, body, bureau, agency authority, instrumentally, court or other judicial or administrative body, central, state or local, having jurisdiction over the Developer, NMC, the Project Facility or any portion thereof, or the performance of all or any of the services or obligations of NMC and the Developer under or pursuant to this Agreement.

46. **Insurance Cover** shall mean the aggregate of the maximum sums insured under the insurance taken out by the Developer pursuant to Article 6.4.3.

47. **Lenders** means financial institutions, banks, funds or trusts, who provide or refinance the debt component of the cost of the Project (including guarantees, letters of credit, risk participation facility, take-out facility and other forms of credit enhancement) and includes subscribers to / trustee for the holders of debentures /bonds or other securities issued by the Developer to meet the Total Project Cost of the Project.

48. **Letter of Award** shall mean the letter issued by NMC signifying its acceptance to the proposal submitted by the Successful Bidder.

49. **Material Adverse Effect** shall mean material adverse effect on:

    The ability of any Party to observe and perform any of its rights and obligations under and in accordance with the provision of this Agreement

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50. **Material Breach** shall mean a breach by either Party of any of its obligations under this Agreement which is likely to have a Material Adverse Effect on the Project and which such Party shall have failed to remedy.

51. **NMC** shall mean the Nagpur Municipal Corporation, Nagpur.

52. **Upfront Premium** shall mean upfront non-refundable payment payable to NMC. The payable amount shall be Rs 11,50, 00,000/- (Rupees Eleven Crores Fifty Lacs) as per Clause 8.1.1 of the RFP and the Financial Offer submitted.

53. **Operation and Maintenance** shall mean the operation and maintenance, rectification and remedy of defects of the Project Facilities as per the O&M Requirements and approved DPR and Drawings & Designs during the Development and Sales period.

54. **O&M Requirements** shall mean the requirements for the operation and maintenance of the Project Facilities;

55. **O&M Contract** means the Operation and Maintenance Contract that may be entered into between NMC, the Developer and the O&M contractor for O&M of the Facility;

56. **O&M Contractor** means the person or entity which is a facility management company and appointed with the approval of NMC to undertake the operation and maintenance of the Facility;

57. **Occupancy Certificate** shall mean a certificate issued by any competent authority including NMC to the Developer, declaring the Project Facility to be operational and includes part Occupancy Certificate;

58. **Operation Period** means the period commencing from the date on which the first occupant occupies its component of the Project and ending only after completion of ten years from the final Occupancy Certificate.

59. **Performance Security** shall have the meaning as specified in Article 10.1.

60. **Person** shall mean a natural person, corporation, limited or general partnership, Limited Liability Company, tenancy-in-common, joint venture, association, business trust, and any other organization and any combination of them.

61. **Project** shall mean the project for development of Mixed Use Commercial Complex Facility through DBFMS on the NMC land at Plot No. 5 of the Orange City Street Project and for that purpose to design, finance,

construction, operations & maintenance, marketing and sales of the Project Facilities to be developed on the Project Site. The Project Facilities shall be constructed in accordance with the Detailed Project Report ("**DPR**") to be approved by NMC and the provisions of this Development Agreement and the Design Proposal.

62. **Project Agreements** means this Development Agreement, the Financing Document, EPC Contract, O&M Contract, Escrow Agreement and any other agreements or material contracts that may be entered into by the Developer with any person in connection with matters relating to, arising out of or incidental to the Project, but does not include the Substitution Agreement, if any.

63. **Project Assets** means all physical and other assets relating to and forming part of the Project Site including (a) rights over the Site in the form of Lease rights, Right of Way or otherwise; (b) tangible assets such as civil works and equipment including foundations, pavements, fountains, irrigation system, pumping systems, structures, works, electrical systems, communication systems and administrative offices; (c) Project Facilities situated on the Project Site; (d) all rights of the Developer under the Project Agreements; (e) financial assets, such as receivables, security deposits etc.; (f) insurance proceeds; and (g) Applicable Permits and authorisations relating to or in respect of the Project.

64. **Project Completion Schedule** means the progressive schedule of construction for completion of the Project on or before the Scheduled Project Completion Date.

65. **Project Facility / Facilities** shall consist of facilities constructed on the Project Site as a Mixed Use Commercial Complex Facility as per the approved Detailed Project Report and Drawings & Designs in accordance with the provision mentioned in this Agreement.

66. **Independent Engineer Contract** shall mean the contract between NMC and the Independent Engineer appointed by NMC who shall be monitoring agency of NMC for the activities of the Developer and its PMC, if any & shall be the Independent Engineer for this Project.

67. **Project Site shall mean the** identified piece of land at Plot No 5 of the NMC Orange City Street Project, Khamla Road measuring 7534 square meters more particularly described in **Schedule 1**.

68. **Ready Reckoner Rate** shall mean the minimum rate decided and notified from time to time by the Maharashtra State Government for sale/purchase of immovable property within Maharashtra state.

69. **Residual Amount shall mean the Debt** Due minus the amount spent towards the Project;

70. **RFP** shall mean the Request for Proposal dated [●] issued by the NMC.

71. **Right of Way** shall mean the constructive possession of the Project Site, together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for construction, operation and maintenance of the Project in accordance with this Agreement.

72. **Rupees or Rs.** refers to the lawful currency of the Republic of India.

73. **Safety Requirements** shall mean such requirements to be followed by the Developer during the Development and Sales Period as set out in Schedule 6;

74. **Scheduled Project Completion Date** shall mean a period of 42 months from the Commencement Date for completion of the Construction Works.

75. **Senior Lender(s)** shall mean the banks or financial institutions, including its successors and assignees who have agreed to finance any part of the Total Project Cost and who shall hold paripass charge on the assets, rights, title and interest of the Developer;

76. **Specifications and Standards"** means the specifications and standards relating to the quality, quantity, capacity and other requirements of the Facility as set forth in Schedule 5 and shall include any modifications thereof, or additions thereto, as included in the design and engineering of the Facility as approved by NMC;

77. **Successful Bidder** shall mean the Bidder who has been issued the Letter of Award pursuant to the RFP Process and invited by NMC to sign the Development Agreement.

78. **Sub-Contractors/Suppliers/Vendors** shall mean the construction contractor(s) and/or operation and maintenance contractor(s) and/or any other contractors and sub-contractors, manufacturers or suppliers or vendors of the Project and/or building/ services or part thereof, as the context may require, to whom the Developer contracts or subcontracts the Project in full or part;

79. **Tax (es)** shall mean and include all Indian taxes, fees, cess, levies that may be payable by the Developer under the Applicable Laws including goods &services tax (GST 2016), excise duties, customs duties, value added tax, sales tax, local taxes, cess and any impost or surcharge of like nature (whether Central, State or local) on the goods, materials, equipment and services incorporated in and

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forming part of the Project charged, levied or imposed by any Government Agency, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include taxes on corporate income.

80. **Technical Proposal** shall mean the business plan and the approach and methodology for implementing the Project submitted at the proposal stage by the Developer and on the basis of which the Detailed Project Report shall be prepared.

81. **Technical Information** shall mean all technical data, know-how, methodologies, techniques, industrial information, trade secrets, confidential information, drawing (including design and engineering drawing and plans), technical reports, operating and testing procedures, instruction and operating manuals, and production and development specifications, the result and records of research and development and the result of consulting work, in whatever medium they may be composed which relate to the Project.

82. **Termination** shall mean termination of this Agreement pursuant to a Termination Notice or otherwise upon expiry in accordance with the provisions with this Agreement.

83. **Termination Notice** shall mean a communication in writing by a Party to the other Party regarding Termination in accordance with Article 14.2 of this Agreement.

84. **Termination Date** shall mean a date specified in the Termination Notice as the date on which Termination occurs or /comes into effect.

85. **"Total Project Cost"** shall mean the lowest of the following:

    a. Actual capital cost incurred for the completion of the Project and as certified by the auditors of repute; or

    b. Total cost of the Project as set forth in Financing Documents.

    Provided that any decision with respect to the actual project cost shall be a final decision of the NMC.

Provided further that if any part of the total cost of the project cost is funded in foreign currency, in accordance with the Financing Documents, then the rate of exchange shall be determined as on the date of Bid, and the Total Project Cost shall be computed as if such foreign currency were converted with reference to such exchange rate. In the event of Termination of this Agreement requiring NMC to make Termination Payments, the liability of NMC shall be determined

on basis of the rate of exchange prevailing on the date of Termination Notice or on the date of the Bid, whichever is lower, and the amounts payable by NMC with respect to amount due by the Developer towards the debt and subordinated debt under the Financing Documents, as the case may be.

86. **Transfer Date** means the date on which this Agreement and the Development and Sales Rights hereunder is terminated by a Termination Notice or upon transfer of the unsold components of the Project to NMC or by efflux of time, whichever is earlier.



1.2 Interpretations

In this Agreement, unless the context otherwise require:

a. Any reference to a statutory provision shall include such provision as is from time to time modified or amended or re-enacted or consolidated so far as such modification or re-enactment or consolidation applies to, or is capable of being applied to any transaction entered into hereunder;

b. References to Applicable Laws shall include the laws, acts, rules, regulations, guidelines or byelaws, which have the force of law in the Union of Indiafrom time to time as may be amended, modified, supplemented, extended or re-enacted.

c. The words importing singular shall include plural and vice versa;

d. The headings are for the convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement.

e. Term and words beginning with capital letters and defined in this Agreement including the Schedules shall be construed accordingly;

f. The words "include" shall be constructed without limitation;

g. Any reference to day shall mean a reference to a calendar day;

h. Any reference to week shall mean a period of time between the same day in successive calendar weeks as may be applicable to the context.

i. Any reference to month shall mean a period of time between the same dates in successive calendar months as may be applicable to the context.

j. Any reference to year shall mean a period of time between the same dates of the same Calendar month in successive calendar years as may be applicable to the context.

k. The schedules to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement.

l. Any reference at any time to any agreement, deed, instrument, or document of any description shall be construed as reference to that agreement, deed,

instrument, license, or other document as amended, varied, supplemented, modified or suspended at the time of such reference;

m. Reference to recitals, articles, sub-articles, clauses, or schedules in this Agreement shall, except where the context otherwise requires, be deemed to be references to recitals, articles sub-articles, clauses and schedules of or to this Agreement;

n. Any agreement, consent approval, authorization, notice, communication, information or report required under or pursuant to this Agreement from or by any Party shall be valid and effective only if it is in writing under the hands of duly authorized representative of such Party as the case may be, in this behalf and not otherwise;

o. Time shall be of the essence in the performance of the Parties' respective obligations. If any time period specified herein is extended, such extended time shall also be of the essence.

p. Any reference to any period commencing "from" a specified day or date and "till "or "until" a specified day or date shall include both such days or dates;

q. The damages payable by either Party to the other of them, as set forth in this Agreement, whether on per deem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the "**Damages**");

r. In case ambiguities or discrepancies within this Agreement, the following shall apply:

   i. Between two Articles of this Agreement, the provisions of specific articles relevant to the issue under consideration shall prevail over those in other articles;
   ii. Between the Articles and Schedules, the Articles shall prevail;

s. This Agreement, and all other Agreements and documents forming part of this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof shall, in the event of any conflict between them, be in the following order:

   i. This Development Agreement;
   ii. RFP Document & all its volumes along with the Corrigenda & Addenda issued.
   iii. All other agreements and documents forming part hereof;

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i.e. the agreement at (i) above shall prevail over the agreements and documents at (ii) and (iii) above and (ii) shall prevail over all documents in (iii) above.

t. In case of ambiguities or discrepancies within this Agreement, the following shall apply:

   i. Between two or more Clauses of this Agreement, the decision of the Commissioner, NMC shall prevail and shall be final and binding on the parties.

   ii. Between the Clauses of this agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;

   iii. Between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;

   iv. Between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and

   v. Between any value written in numerals and that in words, the latter shall prevail.

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Article 2. Conditions Precedent to the Agreement

2.1 Conditions Precedent

The respective rights and obligations of the Parties under this Agreement shall be subject to the satisfaction in full of the conditions precedent specified in this Article 2 (the "**Conditions Precedent**").

2.2 A. Condition Precedent for Developer:

i. Delivered to NMC within thirty days of the issuance of the Letter of Award, a Bank Guarantee from a nationalized bank, in favor of NMC, in the form as set out in **Schedule 4** and in accordance with Article 10 (**"Performance Security"**) for a sum of Rs. 5,00,00,000/- (Rupees Five Crores Only) for due and punctual performance of its obligations hereunder.,

ii. Signed this Development Agreement with the NMC within 07 days of submission of Performance Security.

This Development Agreement shall not be effective in case of the non-fulfillment of Conditions Precedent by the Parties as mentioned below:

a. The Developer may, upon providing the Performance Security to the NMC by notice require the NMC to satisfy the Conditions Precedent set forth in this Clause 2.2 a within period of 75 (seventy five) days of the Effective Date, and the obligations of the NMC hereunder shall be deemed to have been performed when NMC shall have hand over to the Developer the peaceful possession of the Project Site free from all encumbrances excluding utilities.

i. Make the payment of the necessary Stamp Duty on signing of this Development Agreement.

ii. Sign the Integrity Pact.

iii. Submitted certified true copies of all Project Agreements, in particular, the EPC Contract, O&M Contract (with an entity having the requisite O&M experience) as well as the shareholders funding agreement among the consortium partners NMC;

iv. The Developer submits a copy of the detailed funding plan for completion of the Project, which shall include the equity and debt contribution by the consortium partners in the Developer entity, the copies of the sanction letter/term sheets in relation to the financial assistance/ loans/debts sanctioned/committed by the lenders.

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v. Submitted to the NMC, certified true copy of its constitution documents and a legal opinion from the legal counsel of the Developer with respect to the capacity and authority of the Developer to enter into this Development Agreement and the enforceability of the provisions thereof;

vi. Delivered to the Authority a confirmation from the Selected Bidder / each of the Consortium members, in original, of the correctness of their Representations and Warranties set forth in Article 8.

vii. May obtain the sanction of the Drawings & Designs from the Town Planning Department, NMC.

viii. Prepared, finalized and procured approval of the Authority for the Detailed Project Report in line with the sanctioned Drawings & Designs.

Provided that upon a request in writing by the Developer, NMC may, in its sole discretion, waive any of the Conditions Precedent set forth hereinabove. For the avoidance of doubt, the NMC may, in its sole discretion, grant any waiver hereunder with such conditions as it may deem fit.

2.2 B Conditions Precedent for NMC:

i. NMC shall within 75 days from the Effective Date handover to the Developer encumbrance-free, peaceful, vacant and physical possession of the Project Site;

ii. Permit the Developer to the Project Site along with right to use all Easementary Rights, in accordance with the terms and conditions of this Agreement, provided that the Developer shall have prior to entering the site given a bank guarantee to the Authority as Performance Security in accordance with the terms hereof;

iii. Appoint an Independent Engineer as per the provisions of this Agreement.

iv. Provided that upon a request in writing by NMC, the Developer may waive any of the Condition Precedent set forth herein above.

Upon satisfaction in full of all Conditions Precedent for a Party, the other Party shall forthwith issue to such Party a certificate of compliance with Conditions Precedent (**the "Certificate of Compliance"**).

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2.3 I. Conditions Precedent for Developer before Commencement Date:

i. Disbursed the Upfront Premium to NMC in following manner:

- Rs 2 crores within 30 days of Effective Date.

ii. Handover of site shall be done by NMC only on receipt of the Upfront Premium.

iii. The Developer shall have executed and delivered to the Authority within 30 days from the Handover Date the letter acknowledging handover of the of Project Site in the format set out in Schedule 3

2.4 Liquidated Damages for Delay by NMC

a. In the event that (i) NMC does not procure fulfillment of any or all of the Conditions Precedent set forth in this Article 2 Clause 2.2 B within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by the Developer or due to Force Majeure, then the days equivalent to the number of days of delay by NMC shall be added to the Development and Sales period subject to a maximum of 90 days without damages to any party.

b. Beyond the delay of 90 days, the Developer is free to continue in the Project without receiving any financial compensation from NMC except for the extension of the Development and Sales period.

c. Expenses incurred by the Developer such as the cost for any surveys, cost for preparation of Drawings, cost for preparation of the Detailed Project Report and any other expenses shall not be compensated by NMC in case of exit by Developer. In case of exit by the Developer, the Upfront Premium and Performance Bank Guarantee shall be refunded without any interest thereon and this shall be treated as full and final settlement by the parties.

2.5 Liquidated Damages for Delay by Developer

a. For non-fulfilment of Condition Precedent as per Clause 2.2 A i & ii, the Bid Security shall be forfeited by NMC.

b. For non-fulfilment of Condition Precedent as per Clause 2.2 A "a" within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by NMC or due to Force Majeure, the Developer shall pay to NMC Damages in an amount calculated at the rate of 0.50% of the of the Performance Security for each week's delay until the fulfillment of such Conditions Precedent, subject to a maximum of 10% (ten percent) of the

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Performance Security. Whenever such damages are payable to NMC, the Developer shall replenish the Bank Guarantee within a period of 7 (seven) days.

c. On continuation of delay even after payment of the penalty of 10% of Performance Security, NMC shall have the right to seek the termination of this Agreement.

2.8 Non Fulfilment of Conditions Precedent

a. In the event of failure by any Party to procure compliance with any of the Conditions Precedent as per the provisions of this Article 2 and the other Party have not waived any of the conditions (partially or absolutely), the Development Agreement shall cease to have any effect as of that date.

b. In the event of the Agreement not coming into effect on account of the Developer not fulfilling the Conditions Precedent then, NMC shall forfeit the Bid Security.

c. In the event of the Agreement not coming into effect on account of the NMC not fulfilling any of its Conditions Precedent then the Bid Security, the Performance Security and the Upfront Premium, as the case may be, shall be returned without any interest on it to the Developer.

d. Notwithstanding anything contained in this clause, the Parties may mutually decide to extend the time period for the fulfillment of the Conditions Precedent.

e. Provided that the liquidated damages shall not be payable by the Defaulting Party where such delay in the fulfillment of the Conditions Precedent is a result of breach of this Agreement by the other Party or due to Force Majeure. Further provided that where the non- compliance of Conditions Precedent by the defaulting party continues after payment of such liquidated damages, the non-defaulting party shall terminate this Development Agreement forthwith.

The Parties shall notify each other in writing at least once a month on the progress made in satisfying the Conditions Precedent. Each Party shall promptly inform the other Party when any Condition Precedent for which it is responsible has been satisfied.

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Article 3. PROJECT SITE

3.1 Handover of Project Site

a. NMC shall within 75 days from the Effective Date, handover to the Developer the peaceful, vacant and physical possession of the Project Site, for the purpose of implementation of the Project.

b. The Handover shall be initiated only when the Developer shall pay the first instalment of the Upfront Premium.

c. The land constituting the Site shall be handed over to the Developer under this Development Right, for the sole purposes of performance, execution and implementation of the Project.

d. The Developer shall have executed and delivered to the Authority the letter acknowledging handover of the Project Site in the format set out in Schedule 3.

e. Upon the Project Site being handed over pursuant to the preceding sub-article (a), the Developer shall, subject to the provision of Article 4, have the right to enter upon, occupy and use the same and to make at its cost, charges and expenses such investigations, construction, development and improvements in the Project Site as may be necessary or appropriate to implement to the Project in accordance with the provision of this Agreement.

f. The Developer shall ensure optimum utilization of the Site and land available and shall not use the same for any purpose unconnected or which is not incidental to the Project or related activities.

3.2 Rights, Title and Use of Project Site

a. Upon the Developer being issued the Letter of Award and subject to fulfilling the conditions of this Development Agreement, it shall have the right to enter upon the Site, occupy and use the same and to make at its cost, charges and expenses such investigations, construction, development and improvements in the Project Site as may be necessary or appropriate to implement to the Project.

b. The Developer shall have the right to use of the Project Site in accordance with the provisions of this Agreement and for this purpose, it may regulate the entry into and use of the same by third parties. It is clarified that NMC has granted to the Developer, the development and sales rights in respect of the Project Site for the purpose of construction, operations, maintenance and sales of the Project Facilities i.e. A Mixed Use Commercial Complex Facility.

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c. The Developer shall be permitted to enter upon the Project Site for the purpose of design, develop, construct, operate and maintain and Sales of the components of the Project Facilities. The right assigned to the Developer with respect to the Project Site is purely on right to use basis, i.e. Developer is not allowed to further sublease or sub-let the project land to any third party or create any third party interest on the Project landsite, save as otherwise stated in this Agreement. This clause, however, shall not limit the Developer's right for development of the Project Facilities on the Site.

d. The Developer shall be authorized to carry out activities at the Project Site in accordance with the provisions of this Agreement and will be authorized to collect sales revenue generated from development and sales of such developed commercial facilities as part of the Project through third parties subject to necessary certificate being given by NMC and the completion certificate issued by NMC on the recommendation of its Independent Engineer/Monitoring Agency.

e. The Developer shall have the rights, as it may deem fit, to collect from the property and from such persons entering and using the property and the Project Facilities, Fees, usage charges, maintenance charges and any other similar charges during the Development and Sales Period subject to prior approval of such charges from NMC.

f. The Developer shall not part with or create any Encumbrance on the whole or any part of the Project Facilities, including the Project Site save and except as set forth and permitted under this Agreement.

g. The Developer hereby irrevocably appoints NMC (or its nominee) to be its true and lawful attorney, to execute and sign in the name of the Developer for transfer or surrender of the development and sales rights granted hereunder at any time after the Development and Sales Period has expired or has been terminated earlier in terms hereof, a sufficient proof of which will be the declaration of any duly authorised officer of NMC. To discuss

h. The Developer shall allow access to and use of the Project Site for laying/ installing/maintaining telegraph lines, electric lines or for such other public purpose as NMC may specify provided that such access or use shall not result in Material Adverse Effect and that NMC shall, in the event of any physical damage to the Project facilities on account thereof, ensure that the Project Facilities are promptly restored by such utility, at its own cost and expenses. Provided further, that to the extent such access and used allowed by the Developer affects the performance to any of its obligations hereunder, the Developer shall not be in breach of its obligations nor shall it incur/suffer any liability on account thereof.

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i. The Developer shall allow free access to the Project Site at any time as deemed necessary by NMC to the authorised representatives and vehicles of NMC, Lenders and Independent Engineer and for the persons and vehicles duly authorised by any Government Agency to inspect the Project or to investigate any matter within their authority, and upon reasonable notice, the Developer shall provide to such persons reasonable assistance necessary to carry out their respective duties and functions.

3.3 Peaceful Possession

a. NMC hereby warrants that The Project Site together with the necessary right of way, way-leaves is vested with NMC

b. The Developer shall, subject to complying with the terms and conditions of this Development Agreement, remain in peaceful possession of the Project Site. In the event the Developer is obstructed by any Person claiming any right, title or interest in or over the Project Site or any part thereof or in the event of any enforcement action including any attachment, distrait, appointment of receiver or liquidator being initiated by any person claiming to have any interest in/charge on the Project Site or any part thereof, then NMC shall if called upon by the Developer, defend such claim and proceeding also keep the Developer indemnified against any consequential loss or damages which the Developer may suffer, on account of any such right, title, interest or charge. However, even in such case the claim against NMC shall only be restricted only up to the Upfront Premium received at the time of signing of Development Agreement.

3.4 Protection of Site from encroachments

During the Development and Sales Period, the Developer shall protect the Site from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Contractor or other person claiming through or under the Developer to place or create any Encumbrance or security interest over all or any part of the Site or the Project Facilities, or on any rights of the Developer therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement.

3.5 Geological and Archaeological finds

It is expressly agreed that mining, geological or archaeological rights do not form part of the lease rights granted to the Developer under this Agreement and the Developer hereby acknowledges that it shall not have any mining rights or interest in the underlying minerals, fossils, antiquities, structures or other remnants or things either of particular geological or archaeological interest and that such rights, interest and property on or under the Site shall vest in and belong to NMC or the concerned Government Agency. The Developer shall take all reasonable precautions to prevent its workmen or any other person from removing or damaging such interest or property and shall inform NMC forthwith of the discovery thereof and comply with such instructions as the concerned Government Instrumentality may reasonably give for the removal of such property.

3.6 Felling/Transplantation of trees

a. The Developer shall be responsible for the felling/transplantation of trees as per the Applicable Law.

b. The cost of such felling/ transplantation shall be borne by the Developer.

c. NMC shall assist the Developer in obtaining the Applicable Permits for felling/transplantation of trees to be identified by the Developer for implementation of the Project, if and only if such trees cause a Material Adverse Effect on the construction, operation or maintenance of the Project.

d. The valuation of the felled trees shall be undertaken as per the Applicable Law and the said value shall be deposited by the Developer with NMC and after such payment, the felled trees shall be deemed to be owned by the Developer and shall be disposed off in such manner as the Developer may in its sole discretion deem appropriate.

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Article 4. GRANT OF RIGHTS

4.1 Grant of Development & Sales Rights

1. Subject to and in accordance with the terms and conditions set forth in this Agreement, the Authority hereby grants to the Developer and the Developer hereby accepts the license for a period of 84 months commencing from the Commencement Date for the pre-construction & construction activities within the construction period and the right to operate & maintain and undertake marketing & sales of the Project Facilities/Components during the subsistence of the Development and Sales period ("Project Rights").

2. The Developer herein is given the license in respect of the land parcel measuring 7534 square meters, for development of the Project as per the prevailing Floor Space Index (FSI) for the entire Project Site.

3. Subject to and in accordance with the terms and condition set forth in this Agreement, Applicable Laws and the Applicable Permits, NMC hereby grants to the Developer for development and sales rights set forth in this Agreement including exclusive right, and authority to design, engineer, procure, finance, construct, install, commission, operate & maintain, market and undertake sales of the Project Facilities on the Project Site in line with the prevailing laws, rules and regulations subject to the and Good Industry Practices and to exercise and/or enjoy the rights, powers, benefits, privileges, authorizations and entitlements to :

a. Right of way, access to the Project Site for the purpose of and to the extent conferred by the provisions of this Agreement.

b. Perform and fulfil all of the Developer's obligations under and in accordance with this Agreement;

c. Empowered for removing any encroachments on the Project site during and prior to transfer to NMC, if applicable during and at the end of the development period

d. To design, engineer, finance, procure, construct, administer, install, commission, operate and maintain the Project Facilities either itself or through such person as may be selected by it;

e. Bear and pay all costs, expenses and charges in connection with or incidental to the performance of the obligations of the Developer under this Agreement including Capital Expenditure;

f. Upon completion of the Construction Works for the Project Facilities, to manage, operate and maintain the same either itself or through such person as may be selected by it, provided that the ultimate obligation and responsibility for the performance of this agreement shall continue to vest with the Developer till the handover of the property to respective buyers;

g. To demand, collect and appropriate sales revenue amounts from buyers liable for payment of such amounts for the purchase of any of the components of the Project & any part thereof.

h. To collect the sales revenue from buyers into its Escrow Account

i. To collect the Parking and Advertisement fees/charges etc.

j. To borrow or raise money or funding required for the due implementation of the Project without creating a mortgage, charge or create lien on the Project land, which shall till the construction and sales of the Project be in the name and ownership of NMC.

k. To obtain the utilities required for enabling the construction and operation of the Project Facilities;

l. Exclusively hold, possess, and control the Site, in accordance with the terms of the Development Agreement;

m. Neither assign, transfer or sublet or create any lien or Encumbrance on this Agreement, or the Development Rights hereby granted or on the whole or any part of the Project nor transfer, lease or part possession thereof; save and except as expressly permitted by this Agreement; and

n. To transfer the Project Facilities to the buyers on signing of Sale Agreement or Deed of Apartment or any other legal document which transfers the ownership of the project component to the buyer and all such documents shall be recognised by the prevailing law and depending on the legal implications of the same at the time of execution. Unsold project components shall be transferred to NMC on Transfer Date at a value calculated as the construction cost plus interest (interest rate calculated as prevailing SBI Bank Rate+2%). The final decision regarding the transfer value of unsold project components shall be taken by the Strategic Committee.

o. To apply for and obtain all requisite clearances, approvals and consents including from all Governmental Authorities concerned, for the development of Project Facilities.

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p. Any part of the work may be sub-contracted by the Developer through construction contracts/ O&M Contract, provided always that notwithstanding the construction contracts/ O&M Contract, the Developer retains overall management, responsibility, obligation and liability in relation to the sub-contracted work. Any such subcontracting shall not relieve the Developer from any of its obligations in respect of the provision of such work under this Agreement. It is clarified that Developer shall remain liable and responsible for any acts, omissions or defaults of any subcontractor, and shall indemnify the Authority in respect thereof. The Developer shall not be allowed to sub contract the entire contract and the Developer shall only be solely responsible for the Project.

4.2 Development and Sales Period

a. The Development and Sales Period shall mean the period of 84 (eighty four) months inclusive of the construction period of (42) months commencing from the Commencement Date.

b. Provided that in the event of Termination/Foreclosure, the Development and Sales Period shall be limited to the period commencing from the Commencement Date and ending with the Termination Date/Foreclosure Date.

c. The Developer shall complete the Construction Works within a maximum period of (42) months commencing from the Commencement Date.

4.3 Acceptance of Development and Sales Rights

a. In consideration of the rights, privileges and benefits conferred upon the Developer and other good and valuable consideration expressed herein, the Developer accepts the Development and Sales Rights hereby granted for the implementation of the Project

b. The Developer shall commence the Construction Work for implementation of the Project only after the receipt of the Commencement Certificate from NMC and the Developer agrees undertakes to perform / discharge all of its obligations in accordance with the provisions hereof.

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4.4 Transfer of rights on Project Site

a. The ownership of the project land shall vest with NMC till the construction and sales of the Project or till receipt of the complete NMC Revenue Share as contemplated under this Agreement.

b. NMC shall grant license to the Developer to enter and use the Project Site for the purpose of implementation of the Project. NMC shall, by virtue of this agreement, only grant development and sales rights to the Developer to execute and implement the Project in accordance with this Agreement at its cost and risks.

c. For avoidance of doubts, it is hereby clarified that the Developer shall not be allowed, in any case, to sell, hypothecate, mortgage or create any lien or encumbrances on the project land.

4.5 Additional Development at the Project Site

a. The FSI permitted by the Town Planning Department is 2.75 as per the UDCPR 2020 and the restriction on height as approved by AAI is 46.32 meters which generally allows a building above existing ground level

b. Any additional revenue that can be generated by the Developer through the following:

i. Enhanced FSI beyond 2.75 and
ii. Enhanced height above 46.32 mtrs and
iii. due to any changes/updations in the development control rules

c. The Planning for any Additional Development shall be submitted to the Strategic Committee of NMC for its approval.

d. In case of any additional development, the said Design & Architectural Planning shall be submitted to NMC and its Independent Engineer for approval and such additional designs and planning shall be within the elevational framework of the original planning of NMC. The Developer shall also submit to NMC for its approval, the Revenue Model for any such additional development.

e. On approval of the revised Planning/Revenue Model of the Developer, the additional revenue being generated by the Developer shall be shared with

NMC through an appropriate revenue sharing mechanism. The same shall be captured through a Supplementary Agreement to the Development Agreement.

f. In case of any additional revenue accruing to the Developer due to any policy regarding the Transferable Development Rights (TDR) notified by NMC or Government of Maharashtra or Government of India, the calculations of such revenue shall be submitted to the Strategic Committee, NMC and the equitable sharing of the benefit shall be mutually decided.

g. The decision regarding the availing of additional development shall be taken by the developer before issuance of the Completion Certificate.

h. Safety and privacy of the occupants occupying the Project Facilities (as part occupancy is allowed) shall be maintained at all times by the Developer while implementing the Additional Development.

i. **Structural Stability:**

   i. Any proposed Additional Development by way of enhanced FSI or increase in height or otherwise shall need to be appraised for its Structural Stability. The structural drawings of the Project shall have to be vetted and approved by VNIT/IITs and the sole responsibility for this shall be with the Developer and NMC shall bear no liability towards the same.

j. **Revenue Sharing Mechanism for Additional Development:**

   i. Any development above the currently approved 46.32 meters or 2.75 FSI shall be construed as Additional Development.

   ii. For Revenue Sharing proposed between NMC and Developer of the revenue accrued from any such Additional Development shall be referred to the Strategic Committee. The Strategic Committee shall analyze the Revenue Model for the Additional Development submitted by the Developer.

   iii. Based on its analysis the Strategic Committee shall devise an equitable and fair Revenue Sharing mechanism and it shall be implemented by executing a Supplementary Agreement between NMC and the Developer.

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k. **Valuation of Additional Development:**

i. For arriving at the Sale Value of any additional development, valuation shall be undertaken by the Developer through three reputed and registered Valuers. (Registered with Institution of Valuers) and based on this Valuation Report the Sale Value for additional development shall be finalized.

ii. For valuation of the TDR, if any, the policy notified by NMC or Government of Maharashtra or Government of India shall be adopted

l. **Development Charges for Sanction of Drawings:**

i. The Development Charges during the sanctioning of the Building Plan payable to Town Planning Department shall not be applicable for this project, this being a NMC project.

ii. The limits of the Building Plan sanction i.e. P-Line Area and height of the project shall be governed by the prevailing Development Control Rules and the provisions in this Development Agreement.

iii. Subsequent revisions within the same P-Line Area and height shall not attract additional Development Charges.

iv. In case where the P-Line Area and height is enhanced, then for such Additional Development, this Clause 4.5 shall be applicable.

v. The development charges for such revised sanction/modification shall be put up to the appropriate authority for the decision on NMC revenue share from such Additional Development.

4.6 Designing & Specification

a. The Bidder can propose its own Design & Specification which it feels is viable and aesthetically suitable for the project **(the "Proposed Design")** but such design specifications in any case shall not be inferior than as specified in the Conceptual Design Proposal of NMC as indicated in the Volume III of the Bidding Documents.

b. M/s Architect Hafeez Contractor shall be the Independent Engineer/Monitoring Agency for the Project on behalf of NMC. The Independent Engineer shall give its approval for the building drawings and

elevational drawings submitted by Developer before its submission to the Town Planning Department, NMC.

c. The Bidder needs to ensure the following:

   i. The Proposed Design shall be as per the UDCPR 2020 and its updations and Specification shall be as per National Building Code (NBC) and I.S. Codes.

   ii. The Elevational Intent as per the Conceptual Design Proposal of NMC is provided as Volume III of the Bidding Documents should be maintained.

d. Notwithstanding anything contained in this Agreement, the NMC reserves the Right to accept or reject any Design & Specification at any time without any liability or any obligation for such acceptance or rejection and without assigning any reasons thereof.

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Article 5. Independent Engineer/Monitoring Agency

5.1 Appointment

a. NMC has appointed M/s. Architect Hafeez Contractor as its Project Management Consultant for the Project and who shall also be the Independent Engineer cum Monitoring Agency of NMC for the activities of the Developer and its PMC for this project.

b. The Developer may appoint its own Project Management Consultant ("**PMC**") for the Project and shall execute a PMC Contract for its appointment, a copy of which shall be provided by the Developer to NMC.

c. The Developer do hereby acknowledges the rights and obligations of Independent Engineer contained in the Independent Engineer Contract and undertakes to comply and facilitate performance of its obligations by Independent Engineer. (The Independent Engineer contract is available for reference in the Office of the Executive Engineer (Project), NMC, Nagpur. The prospective bidders are expected to go through the Contract prior to submission of their bids).

d. The designs proposed by the Developer are subject to the approval of NMC through its Independent Engineer cum Monitoring Agency, M/s Architect Hafeez Contractor.

e. The Developer shall provide the Independent Engineer with complete access to the Technical Information as would, in the reasonable option of the Independent Engineer, be necessary for the determination and performance of the services by Independent Engineer as set forth in Article 5.2 below and as more specifically set out in Independent Engineer Contract.

f. All project related documents, drawings, plans etc. shall be accessible to the NMC Independent Engineer by the Developer, its PMC and any other entity eligible for it.

5.2 Functions of NMC Independent Engineer

a. Review of Project drawings submitted by the Developer to NMC before submission to the Town Planning Department, NMC. Independent Engineer shall undertake a detailed review of the Designs/Drawings to be furnished by the Developer along with supporting data for conformity or otherwise of such Designs/Drawings with the Scope of the Work and specifications and standards for the Works. Independent Engineer shall complete such review and approval of the proposed designs/drawings and send its recommendations/comments/observations to NMC and the Developer within 15 (fifteen) days of receipt of such Designs/Drawings.

b. Review the Good For Construction Drawings (GFC) submitted by the Developer and submit its report on the same within 15 days of receipt of the GFC Drawings. In case of non conformance by the Developer the same shall be intimated to NMC.

c. Review of the construction milestones submitted by the Developer in conformance with the Project construction plan in the DPR;

d. Review, inspection and monitoring of Construction Works. In the event that the Developer fails to achieve any of the construction milestones as per Clause 6.4.4, Independent Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Independent Engineer determines that completion of the Project Facilities is not feasible within the time specified in the Agreement, it shall require the Developer to indicate within 10 (ten) days the steps proposed to be taken to expedite progress, and the period within which the Construction Works would be completed.

e. For determining that the construction conforms to construction requirements, Independent Engineer shall require the Developer to carry out, or cause to be carried out, tests on a sample basis, in accordance with Good Industry Practices for quality assurance.

f. Review the test reports in a timely manner and as per Good Industry Practices on completion of construction and for issuing Completion/Provisional Certificate;

g. Review, inspection and monitoring of operations and maintenance including books of accounts of the Developer and require the copies of relevant extracts of books of accounts, duly certified by the Statutory Auditors, to be provided to the NMC for verification;

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h. Determining as required under the Agreement the cost of any works or services or their reasonableness;

i. Determining as required under the Agreement, the period or any extension thereof, for performing any duty or obligations and recommend the same to NMC;

j. Upon reference by NMC, Independent Engineer shall review and comment on the contracts entered into by the Developer for the purpose of implementation of the Project;

k. Independent Engineer shall review the monthly progress report furnished by the Developer and its PMC and send its comments thereon to NMC and the Developer within 7 days of receipt

l. Assisting the parties in case of any dispute

m. Independent Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice

n. The Independent Engineer shall determine and certify whether the Developer has completed the Project Facilities as per the approved DPR, Work Plan & Methodology and standard industry practices and issue a Project Completion Certificate on the completion of the Project Facilities.

o. The Independent Engineer will carry out an assessment of the Project in terms of the progress done every 3 (three) months or on request of NMC.

p. Issuance of certificates such as Commencement, Compliance, Completion etc.

5.3 Right of access to Information to the Independent Engineer

Upon a reasonable notice, the Developer shall grant and procure that all Contractor(s) shall grant to the agents, employees and other representatives of NMC and to the Independent Engineer complete access to the construction and developmental activities for the Project and records maintained by the Developer.

5.4 Decision of the Independent Engineer

The decision of the Independent Engineer regarding any technical/designing matter of the Project shall be final and binding on the Developer.

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Article 6. Obligations of the Developer

6.1 Developer's Obligations

6.1.1 Subject to and on the terms and conditions of this Development Agreement, the Developer shall, at its own cost and expense, procure finance for and undertake the design, engineering, procurement, construction, operation, maintenance, marketing and sales of the components of the Project and observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.

6.1.2 **The Developer shall at its own cost and expenses:**

a. Obtain all the Applicable Permits and approvals from appropriate Government Agency, as may be required for performance of its Obligations under this Agreement. The Developer shall be responsible for and shall comply with the terms and conditions subject to which Applicable Permits have been issued.

b. Shall assist NMC in obtaining approval for the Project sanction, if any, required from the Government of Maharashtra or any other Competent Authority. Such approval may be necessitated at any time after issuance of the Letter of Award.

c. Shall obtain the Environment Clearance for the project from the Ministry of Environment & Forest, Government of India or Government of Maharashtra, as the case maybe.
Environment Clearance can be planned by the Developer within the initial 06 months of the construction period of 42 months.

In case of any delay in obtaining the Environment Clearance by the Developer, the construction period of 42 months shall not be extended under any circumstances.

The Developer has to manage and balance between the construction period and period required for Environment Clearance within 42 months only.

d. In case of revision of the drawings, obtain the approval of the Town Planning Department, NMC and obtain the revised Fire NOC and pay the necessary revision charges as applicable.
If the revisions are within the permitted parameters of development as specified in this Development Agreement then no revision charges shall be applicable for such revisions. However if such revisions result in Additional Development and generate additional revenue to the Developer over and above as envisaged under this Development Agreement, then such revisions shall be referred to the

Strategic Committee as mentioned in Clause 4.5 of this Development Agreement and the Developer shall have to pay the revision charges as decided by the Strategic Committee.

a. In case of revision of the drawings obtain the revised Airport Authority of India NOC and pay the necessary revision charges as applicable.

b. Undertake the Sales of the various components of the Mixed Commercial Complex and demand, collect, retain and appropriate sales revenues.

c. Disburse to NMC the Upfront Premium and the quoted Financial Offer as per the payment schedule described in the Development Agreement.

d. In case the Developer intends to include Hotels, Restaurants and Hospitals/Clinics within the Project Facilities then obtaining the necessary applicable Statutory Clearances as well as approval from Town Planning/Health Department, NMC shall be the sole responsibility of the Developer and NMC shall incur no liability for the same.

For any relaxations sought by the Developer with regard to the preparation and approval of the Construction Drawings as per the prevailing UDCPR 2020 and Town Planning Department of NMC, the decision of the Commissioner shall be final and binding. All relevant charges for obtaining such relaxations shall be borne by the Developer and NMC shall incur no liability in this regard. If any relaxation from the norms of the UDCPR 2020 /Town Planning Department is allowed and this enhances the revenue earning of the Developer, such benefits of the enhanced revenue shall be shared equally with NMC, failing which such relaxations would be cancelled.
Relaxations can be availed as long as the FSI is within the permitted FSI as mentioned in the RFP and Development Agreement, in such case no relaxation charges shall have to be borne by the Developer.
However if such relaxations result in Additional Development as spelt out in the Development Agreement and results in generation of additional revenue to the Developer, then the relaxation charges for such additional revenue generated shall have to be paid by the Developer.

e. Make, or cause to be made, necessary applications to the relevant Government Agency with such particulars and details as may be required for obtaining Applicable Permits, comply with all applicable requirements, guidelines etc. laid down under the Applicable Laws and and obtain and keep in force and effect such Applicable Permits in conformity with the Applicable Laws;

f. Shall not mortgage or create any Encumbrance or lien on the Project Land.

g. Ensure that the development of the Project Facilities is in accordance with the approved Detailed Project Report (DPR) and Detailed Drawings & Designs.

h. That the adjacent property (ies) should not be damaged in any manner. If the adjacent property (ies) is affected or damaged, then the Developer shall restore it to the original state at its own cost;

i. Procure and maintain in full force and effect as necessary, proprietary rights, licenses, agreement and permissions for materials, methods, processes and systems used in or incorporated in the project;

j. Make efforts to maintain harmony and good industrial relation among the personnel employed in connection with the performance of its obligations and shall be solely responsible for compliance with all labor laws and solely liable for all possible project claim and employment and related liabilities of its staff employed in relation with the Project and hereby indemnifies against any claims, damages, expenses or losses in this regards and that in no case and shall for no purpose shall NMC be treated as employer in this regard;

k. Be solely liable for all possible losses and claims in relation to any environmental damages caused during the development of the Project Site and here by indemnifies NMC against claims, damages, expenses or losses in this regards;

l. Make its own arrangement for procuring materials and observe, fulfill and comply with the conducted Environmental Impact Assessment (EIA) study as required for the project.

m. Ensure that the Project Site remains free from any encroachments and in the event of any encroachment or occupation on any part thereof, the Developer shall report such encroachment or occupation forthwith and take all steps necessary to remove encroachments that are at the Project Site subsequently;

n. Allow access to the project Site to authorized representatives of NMC, its Independent Engineer and any Government Agency for the purposes of ascertaining compliance with terms, covenants and conditions of this Agreement.

o. Pay all applicable charges pertaining to the Project Site and the Construction Works being undertaken on the Project Site, including utility charges relating to the Project Site.

p. Undertake Operation and Maintenance for the Project during the entire development and sales period in accordance with O&M Requirements which in turn shall have to be followed diligently by the Developer. Non-compliance on

the same ground on a consistent basis for a period of more than 90 days will be considered a major breach of the agreement and invite action as per stipulated conditions of the agreement.

q. Deploy adequate number of Staff/O&M agency for proper operation and maintenance of the Mixed Use Commercial Complex till the entire Project is handed over to the buyers' and the society is formed;

r. Plan the proposed facility as a "Green Building" with smart features and the bidder shall get it certified from relevant Indian authorities' viz. IGBC/ GRIHA/ASSOCHAM etc for a period of 10 years from the date of issuance of the Occupancy Certificate.

s. Make provision for a Site Office with necessary facilities such as computers, printers, table, chairs, cupboards etc and which shall be accessible to NMC officials and its PMC/Independent Engineer for necessary Project Management activities.

t. Generation of power through use of Solar panels should be planned in the Facility.

u. Electric vehicle charging nodes should be planned in the Facility.

v. To undertake all activities for conforming to RERA compliance including maintaining the books of accounts and compulsory registration with MAHARERA.

w. Would be responsible for attending and rectifying any Project/construction related grievances of the buyers' as per RERA Act 2016.

x. Would be responsible for attending to any grievances arising during construction of the Project as per RERA Act 2016.

y. Should plan and develop mechanical parking facilities at the Project Site.

z. The Developer can earn Parking Revenue from the project till completion of the Development and Sales period.

On transfer of the project to the society formed by the buyers at the end of the Development and Sales period, all the rights and privileges including the parking rights shall be transferred to the society formed by the buyers.

aa. The Developer can charge fees/O&M charges from the buyers/society for such operation & maintenance. The Developer shall manage its cost for such O&M

from the fees/O&M charges collected/own resources and NMC shall in no way be responsible for any such O&M responsibilities and costs.

bb. The Developer can plan the advertisements as per its own planning but within the applicable laws of Maharashtra state and/or NMC in this regard.

The Developer can earn Advertisement Revenue from the project till completion of the Development and Sales period.

On transfer of the project to the society formed by the buyers at the end of the Development and Sales period, all the rights and privileges including the advertisement rights shall be transferred to the society formed by the buyers.

cc. Ensure and procure that its Subcontractors comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Developer's obligations under this Agreement;

dd. Surrender the Project to the Authority upon expiry of the Contract Period or upon the Termination of this Agreement, in accordance with the provisions thereof for any reason whatsoever;

ee. Deposit the revenue through a Escrow Account, accrued from the appropriate Contractual Arrangements as per this Agreement, in the NMC Bank Account,

ff. The Developer shall submit a "Structural Safety Certificate" of the proposed Facility from the competent institution i.e. VNIT before the commencement of sales of the project components. The Developer shall ensure that the certificate is also counter certified/ signed by the Independent Engineer.

gg. The Developer is responsible for payment of all applicable taxes in relation to construction and development, till handing over of the Project to the buyers or NMC as the case maybe.-obligations.

hh. Prior to commencement of the construction activities, Developer is required to get approval of the detailed building development plan submitted as part of Detailed Project Report from NMC, on the basis of which the Developer shall develop the project site.

6.1.3 Shareholding Lock-in Obligations

Shareholding obligation for Single Entity

The Selected Bidder (in case of consortium, the lead member) shall hold not less than 51% (Fifty One percent) or more of the Equity of the SPV for the Development and Sales Period and/or till 100% realization of NMC Revenue Share.

Shareholding obligation for Consortium

a. The Developer shall commit that the Lead Member and each of the other members whose experience has been evaluated at this RFP stage, shall subscribe at least 51% (fifty per cent) or more and 21% (twenty one percent) or more respectively, of the paid up and subscribed equity of the SPV for the Development and Sales Period and/or till 100% realization of NMC Revenue Share.

   Notwithstanding anything to the contrary, at no stage, no change in the shareholding patterns of minimum requirement as stipulated above shall be made by the Developer in the Consortium. Also no change shall be made without obtaining prior approval from the Authority. On an application made for the purpose, the Authority may permit the change of equity components/ shareholding patterns provided the Authority is satisfied that the proposed changes shall be in the interest of the implementation of the Project in future and would not be detrimental to any of the rights or interests of the Authority and any of the confirming authorities. However, no such change in the shareholding pattern shall be permitted by the Authority, which would make the Consortium Members or Associates or the Developer non-compliant with sub-clauses above.

b. The above restriction also applies to the direct or indirect transfer of control of legal or beneficial ownership of shareholders of the Developer. The expression "control" a shall have the meaning ascribed thereto in the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeover) Regulations, 2011 or any statutory re-enactment thereof as in force as on the date of acquisition of control.

Obligations Relating to Change in Ownership

The Developer shall not undertake or permit any Change in Ownership.

6.2 Pre-construction Obligations

6.2.1 Submission and Approval of Detailed Project Report

a. The Developer shall, before commencement of Construction Works, have requisite organization and designate/appoint suitable officers/ representatives as it may deem appropriate to supervise the Project, to liaise with the Independent Engineer/ NMC and to be responsible for all necessary exchange of information required pursuant to this Agreement;

b. Undertake, do and perform all such acts, deeds and things as may be necessary or required before commencement of construction under and in accordance with this Agreement, the Applicable Laws and Applicable Permits;

c. Prepare and submit the Detailed Project Report to NMC for its approval within 75 days of the Effective Date.

d. The Developer shall, at its own cost and subject to the term and conditions of this Agreement, prevailing bye laws and UDCPR 2020, prepare a construction plan consistent with the DPR for construction of the Project Facilities and submit the same to NMC for its approval within 75 days from the Effective Date.

e. NMC shall, within a period of 30 days from submitted DPR, review and approve the same, or shall communicate the changes, revisions and modification in the DPR. The Bidder shall make the changes, revisions and modification within 15 days from such receipt of the comment by NMC /Independent Engineer and shall resubmit the DPR to NMC for its approval. If however, NMC delays in responding towards the DPR and Drawings & Designs submitted for more than 45 days from the receipt of the DPR then the Developer will be entitled to get an extension of the Development and Sales Period, equivalent to the number of days of delay after 45 days period, subject to the discretion of NMC.

f. NMC shall, within a period of 15 days from such resubmission, ascertain whether the Developer has carried out the changes, revision and modification and accordingly accord its approval to the Construction Plan and issue a Commencement Order to enable the Developer Construction Works.

g. The Developer can commence the Construction Works only after the receipt of the Commencement Order. The Developer shall adhere to the approved construction plan and Standards and Specifications mentioned in Schedule 5 to this Agreement. However, if the Developer desires to deviate from the approved construction plan for the Project Facilities, then it shall seek a prior written permission from NMC. To discuss

h. The contents of the Detailed Project Report and Drawings & Designs shall include but not necessarily restricted to:

i. Existing characteristics of the Project Site
   a. Physical characteristics and natural resources
   b. Demography
   c. Connectivity
   d. Facilities
   e. Infrastructure

ii. Land requirement & demarcations for
   a. Commercial areas
   b. Open spaces
   c. Transport and communication
   d. Water bodies
   e. Movement Plan and connectivity with the adjoining Metro Station.
   f. Parking

iii. Development Aim and Objectives

iv. Development Proposal

v. Construction Plan and Technical Feasibility

vi. Development mix

vii. Phasing of the development

viii. Detailed Cost Estimates along-with justifications

ix. Financial Feasibility and Resource mobilization plan

x. Safety requirement

xi. Operation and Maintenance Requirements

xii. Schedule of the materials to be used for construction.

xiii. Strategy for Transfer of the facility to NMC in reasonably good condition, if applicable.

i. The Developer shall adhere to the approved Detailed Project Report at all times and shall not deviate from the approved Detailed Project Report, without the prior written consent of NMC.

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j. The Developer shall submit to NMC a monthly progress report for the progress of implementation of the Project during previous month, on or before 10th Day of the month, commencing from the Commencement Date till the completion of the Project Facilities.

k. The Developer shall make necessary arrangements with the relevant Government Instrumentality for timely provision of water, electricity, sewage and disposal facility for the construction debris and other utility services at the Project Site as may be required from time to time during the Construction Period including but not limited to conducting the tests as envisaged under this Agreement. The Developer shall not hold NMC responsible for the same or any delay in the provision of the same by any of the Government Instrumentality;

l. The Developer shall make necessary arrangement for all utilities including water supply at the Site during Construction and post construction for the buyers of the Project Components.

6.3 Project Construction Obligations

6.3.1 Construction of Project Facilities

a. The Developer shall submit a Project Completion Schedule and adhere to such the Project Completion Schedule and achieve COD on or before the Scheduled Project Completion Date. In the event the Developer fails to achieve the COD as per the Scheduled Project Completion Date, unless such failure has occurred due to Force Majeure or for reasons solely attributable to the Authority, the Developer shall pay as damages to NMC, a sum calculated at the rate of 12% interest on the balance amount payable to NMC as on the date of COD for each week of delay, until such COD is achieved. This shall be recovered from the Performance Security Bank Guarantee on a weekly basis. Whenever such damages are payable to NMC, the Developer shall replenish the Bank Guarantee within a period of 7 (seven) days.

b. The Construction period is a period of 42 (forty two) months for the entire building but for this Clause 6.3.1 the period of 42 months shall be considered for payment of penalty for delay in achieving COD.

c. The Developer may undertake Construction Works by itself or through a Contractor possessing requisite technical, financial and managerial expertise / capability; but in either case, the Developer shall remain solely responsible to meet Standards and Specifications mentioned under Schedule 5 of this Agreement.

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d. Make its own arrangements for procuring materials needed for the Construction Works and in accordance with the Applicable Laws and Applicable Permits.

e. The Developer shall adhere to all the construction requirements as per detailed construction plan and shall adhere to the standards and specification and other applicable standards / guidelines including BIS and Good Industry Practice.

f. The Developer shall promptly and in such sequence as is consistent with the construction plan, submit a copy of the drawings to the Independent Engineer for its review and comments. By submitting the drawings to the Independent Engineer and NMC as above, the Developer shall be deemed to have represented that it has verified and determined that the drawings forwarded are in conformity with the approved construction plan.

g. Within 10 days of receipt of the drawings, the Independent Engineer shall review the same taking into account, inter-alia, comments of NMC, if any, thereon, and convey its comments / observations to the Developer on the conformity of drawings with construction plan. If the comments / observations of the Independent Engineer indicate that the drawings are not in conformity with the construction plan, such drawings shall be revised by the Developer to the extent necessary and resubmitted to the Independent Engineer for its further review. The Independent Engineer shall give its observations and comments, if any, within 10 (ten) days of receipt of such revised drawings, which shall be taken into account by the Developer while finalising the drawings.

h. Notwithstanding any review or failure to review by or the comments / observations of the Independent Engineer or NMC, the Developer shall be solely responsible for the adequacy of the drawings and their conformity with the construction plan, and shall not be relieved or absolved in any manner whatsoever of any of its obligations hereunder.

i. The Developer shall remove and disposed off all debris and extra construction and building material (sand, gravel, stone, rock, loose earth etc.) lying at the Project Site or generated during the implementation to the Project as instructed by the Independent Engineer/NMC at its own cost.

j. For the purpose of determining that Construction Works are being undertaken in accordance with the requirements mentioned under the Agreement, coordinate with the PMC and diligently carry out all necessary and periodical Tests in accordance with the instruction and under the supervision of the the Independent Engineer. The Developer shall maintain proper record of such tests and the remedial measures taken to cure the defects or deficiencies, if any, indicated by the Test results.

k. The Developer while carrying out the Construction Works in accordance with the Specification mentioned herein, shall ensure the usage of latest and best suitable technology for the implementation of the Project. The cost for such implementation shall be solely borne by the Developer.

l. The Developer shall ensure that no interference or damage is caused to the properties of NMC or any other Person during development;

m. Maintain parts of the Facility wherein the construction has been completed while the construction of the remaining part of the Facility is being undertaken.

n. For the purpose of the construction of the Project and any matters incidental thereto, during the Construction Period, divert the flow of traffic if such diversion or interruption is necessary for the efficient progress of the Construction Works and in case non-diversion would result in a Material Adverse Effect to the Project. The Developer shall be responsible for obtaining all prior written permissions required from the relevant Government Instrumentality for the diversion of any traffic.

o. Shall, subject to Applicable Laws be responsible for the shifting of utility facilities, with the assistance of the relevant Government Instrumentality, such as electric cable/lines, water pipelines, telephone cables, etc., present at the Project Site whether over or under the ground only if such utility would cause a Material Adverse Effect in the construction of the Facility. The Developer shall execute all necessary Documentation required in relation to the shifting of any utility and shall not hold NMC responsible for the same.

p. Within 90 (ninety) days of COD, the Developer shall furnish to the Authority three set of "as built" Drawings, 2 (two) hard copies and 1(one) soft copy, reflecting the Construction Works which have been completed as on COD, are in a manner as set out in construction plan and Standard and Specifications. The Developer shall also submit an as built survey illustrating the layout of the Project Facilities and setback lines, if any, of the building and structures forming part of Project Facilities.

q. The Developer shall comply with the provisions of the National Building Code, General Development Control Rules and other guidelines of principles of Good Industry Practice as a reasonable and prudent person, and follow the statutory requirements which are applicable to it from time to time during the development and operation of the Project.

r. The Developer shall take prior approval of NMC in case there is any change in the Project Facilities defined under the Project during the Development and Sales Period which may be considered by NMC on a case to case basis.

6.3.2 Commencement & Completion Certificate

a. The Developer shall commence the construction of Project Facilities only when the Town Planning Department has approved the detailed drawings for the Project.

b. Upon completion of Construction Works, and the Independent Engineer determining the Tests to be successful, it shall forthwith issue to the Developer and NMC a certificate certifying completion of the Construction Works ("**Work Completion Certificate**") and date for commencement of commercial operation for the Project (the "**Commercial Operation Date**" or "**COD**"). The Project shall enter into commercial services on COD.

c. Project Completion Certificate shall be issued to the Developer on successful completion of the Project wherein NMC has been paid its complete share of the sales proceeds from the sale of project components of the Project.

d. The Project Facilities shall be deemed to be complete under the following conditions:

   i. The Project Facilities will have to comply with approved Detailed Project Report.

   ii. The Project Facilities will have all the permits and clearances to be obtained.

   iii. The Project Facilities would have obtained final and unconditional waivers from all Contractors.

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6.3.3 Rules for Development of the Project Facilities

The Project Facilities hereby proposed by the Developer to be so constructed shall comply with the following rules:

a. Applicable UDCPR 2020 and its updations, if any, for the Project Site on the date of submission of plans to the authority.

b. Floor Space Index (FSI) limits including any enhancements;

c. In case of any amendment or addition to the UDCPR 2020 as applicable, NMC shall have the final authority to approve the same for the Project.

d. The Developer has satisfied itself as to usability of the FSI of the Project Site before the signing of this Agreement. Therefore, non-usability of FSI for the Project Site would not be an excuse for the Developer for not complying with its obligations or for reduction in the financial quote of the Developer.

e. Obtaining and adopting the statutory requirements including but not limited to Fire, Health, Environment, as required.

f. The maximum height up to which the Project Facilities can be constructed shall be in accordance with the applicable UDCPR 2020 and as allowed by the Airport Authority of India.

g. Obtain approval of the designs from the ADTP, NMC, in case of any revisions in its Project Designs already approved by ADTP, NMC; it shall be the responsibility of the Developer to get such revised drawings approved from the Town Planning department of NMC.

h. Seek NMC approval for the Project DPR and its revisions/updations, if any.

i. Any other development with the prior written approval of NMC.

j. Technical Specifications shall be minimum as per the Volume III of this bidding document and when not specifically mentioned then the prevailing specifications of PWD, Government of Maharashtra, CPWD, Government of India and Standard Codes such as Bureau of Indian Standards, other Indian Standards and good engineering practices shall prevail.

k. Intimation of every sale shall be made to NMC by the developer immediately on finalization of terms with buyer and before receipt of first down payment from the Purchaser.

l. The Developer shall appoint a facility management firm with the approval of NMC for the proper operation and maintenance of the Mixed Use Commercial Complex including the Common Areas from the date of issuance of Occupancy Certificate till the completion of the Development and Sales period and/or till the complete Project is handed over to the buyers' and a society is formed. NMC shall not be liable to pay any maintenance charges for the Mixed Use Commercial Complex facility.

m. **Plan for approval**

No work shall commence or carried out which infringes UDCPR 2020 and its applicable updations or any other Applicable Law for the time being in force as regards to construction on the Project Site and until the said plans, elevations, sections, specifications and details have been so approved as aforesaid and thereafter the Developer shall not make any alteration or addition thereto unless such alteration and addition shall be in the manner as approved by the Independent Engineer earlier.

6.4 Project Operational Obligations

6.4.1 General

a. The Developer shall operate and maintain the Project Facilities in accordance with the Applicable Laws and Good Industry Practice during the Development and Sales Period and as per the approved O&M Requirements under the approved DPR. The O&M Requirements contained in O&M manual submitted by the Developer shall be revised and updated every year or in such shorter duration as may be required.

b. The Developer may undertake operations and maintenance of the Project Facilities through engaging third party contractors with requisite technical, financial and managerial expertise / capability.

c. The Operation & Maintenance of the parking area shall be with the Developer. The Developer can charge fees/O&M charges from the buyers/society for such operation & maintenance. The Developer shall manage its cost for such O&M out of the fees/O&M charges so collected and any deficit shall be met from its own resources and NMC shall in no way be responsible for any such O&M responsibilities and costs

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d. The Developer shall obtain all the Applicable Permits and clearances from concerned authorities under the Laws and ensure legal compliance with Labor and other Applicable Laws at all times.

e. The Developer shall always display a Logo of Nagpur Municipal Corporation at prominent locations on the Project Facilities, preferably on the side facing the Main Road.

f. Logos of NMC as well as of M/s Architect Hafeez Contractor should also be displayed on any advertisement material, leaflets, brochures, sales documents etc. prepared by the Developer for the marketing & sales of the Project.

g. The Developer waives off any rights for an extension after the initial period of 84 (eighty four) months is over and has to transfer the fully constructed unsold project structures peacefully, free from any encumbrance or encroachments and in good working conditions in line with point "n" Article 4.

h. Good conditions shall imply that the conditions of the facilities, utilities, electrical fittings shall not be of a lower quality than as prescribed in the Standards and Specifications at the time of commencement of the Project. Natural wear and tear & deterioration shall be considered but deliberate damages shall not be considered.

i. NMC shall constitute a Committee under the chairmanship of the Hon'ble Municipal Commissioner for examination of the Project Facilities in case part of the unsold project components of the project need to be transferred to NMC. The issues raised by the committee shall need to be rectified by the Developer within 60 days. In case of failure to do so, for every day of delay under such circumstances, the Developer shall have to pay a sum equal to 0.10% (zero point ten percent) of the Performance Security per day to NMC. In case NMC encashes the Bank Guarantee to the extent indicated, the Developer shall replenish the same within 7(seven) days. NMC also reserves the right to appropriate the Performance Security in case of delays and damages. Decision of the Municipal Commissioner in this regard shall be final and binding.

j. The Developer shall nominate a representative with due legal authorization by way of a Power of Attorney on a stamp paper of appropriate value for conducting the day to day activities of the project including its O&M. The said representative shall be authorized for depositing of the Sales Proceeds with NMC as prescribed in the Development Agreement. In case of the untimely demise of the promoters/partners of the Developer, the respective legal heirs shall assume the mantle of Developer.

6.4.2 Extension of Time

a. Without prejudice to the rights, powers and remedies of NMC, NMC shall issue a notice to the Developer in the event there is a probable delay in completion of Project Facilities and achieving the Commercial Operation Date beyond the period of 42 (forty two) months from the Commencement Date for reason(s)other than the Force Majeure events.

b. In case of probable/intermediate delay in completion of the Construction Works of the Project is attributable to the Developer.

c. Where the COD does not occur as per the timelines indicated in the Project Completion Schedule, unless the delay is on account of reasons solely attributable to NMC or due to Force Majeure, the Developer shall pay liquidated damages to NMC which shall be at the rate of 0.10% (zero point ten percent) for each day of delay in achieving COD, subject to maximum of 10% (ten percent) of the amount of Performance Security. The performance security used by NMC to recover the liquidated damages needs to be replenished within 07 days of recovery. If Developer fails to replenish performance security, NMC shall have right to terminate the contract for default on part of Developer.

d. If the delay extends beyond a period of two months or if the Developer fails to make any payment as per the penalty terms mentioned above, NMC shall, subject to the provisions of Article 14.1 terminate this Agreement and forfeit the Performance Security.

6.4.3 Insurance

a. The Developer shall, at its costs and expenses, purchase and maintain during the subsistence of this Development Agreement insurance to cover against:

   i. Loss, damages or destruction of the Project Site, at replacement value;

   ii. The Developer's general liability arising out of this Agreement;

   iii. Liability to third parties;

   iv. Labor Insurance in accordance with the prevailing Labor Laws.

   v. The risk that may devolve on NMC as a consequence of any act of negligence or omission by the Developer; and

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vi. Any other insurance that may be necessary under and in accordance with the Financing Documents, Applicable Laws and Good Industry Practices to protect the Developer and its employees and other including all Force Majeure Events that are insurable and not otherwise covered in items above.

b. For the sake of brevity, the aggregate of the maximum sums insured under the insurance taken out by the Developer pursuant to this Article are herein referred to as the "**Insurance Cover**".

c. **Evidence of Insurance Cover:**

All insurance obtained by the Developer in accordance with this Clause 6.4.3 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 15 (fifteen) days of obtaining any insurance cover, the Developer shall furnish to NMC, 2 (two) notarized true copies of the certificate(s) of the insurance, 2 (two) copies of the insurance policies and premia payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Developer to NMC.

d. Such Insurance Cover shall not be cancelled, changed or terminated until the expiry of the least 45 days after written notice of such cancellation, change or termination has been given to NMC in writing.

e. On transfer of the Project Facilities to the buyers, the residual Insurance Cover shall be transferred to the buyers. The buyers/society formed by buyers shall have the option of maintaining such Insurance Cover.

f. All insurance policies in respect of the Insurance Cover obtained by the Developer shall include a waiver of any and all right of subrogation or recovery of the insurers there under against, inter alia, NMC, and its assigns, successor, undertaking and their subsidiaries, affiliates, employees, insurers and underwriters and of any right of the insurers of any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

g. The Developer hereby further releases, assigns and waives any and all rights of recovery against, inter alia, NMC and its assigns, undertaking, and their affiliates, subsidiaries, employees, successors, assigns, insurers and underwriters, which the Developer may otherwise have or acquire in or from or in any way connected with any loss, liability or obligations covered

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by policies of insurance maintained or required to be maintained by the Developer pursuant to this Agreement (other than Third Party liability insurance policies) or because of deductible Articles in or inadequacy of limits of any such policies of insurance.

h. Subject to the provisions of the Financing Documents and unless otherwise provided herein, the proceeds under Insurance Cover of all insurance policies received shall be promptly applied by Developer towards repair, renovation, restoration or re-instatement of the Project Facilities or any part thereof which may have been damaged or destroyed. The Developer shall carry such repair, renovation, restoration or re-instatement to the extent possible in such manner that the Project Facilities after such repair, renovation, restoration or re-instatement to the extent possible in the same condition as it were prior to such damage or destruction, normal wear and tear accepted.

i. **Remedy for failure to insure:**

If the Developer shall fail to effect and keep in force all insurance for which it is responsible pursuant hereto, NMC shall have the option to either keep in force any such insurances, and pay such premia and recover the costs thereof from the Developer, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Developer.

6.4.4 Milestones for Construction:

S.N.	Percentage of Project Completion in terms of the approved Project Cost	Percentage of time taken from the maximum of 42 months
1.	10%	25%
2.	35%	50%
3.	65%	75%
4.	100%	100%

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6.4.5 Safety

a. The Developer shall abide by the following in so far as they related to safety of the Users:

i. Applicable Laws and Applicable Permits;
ii. Manual for Safety, issued by the Authority;
iii. Provision of this Agreement;
iv. Good Industry Practice

b. Appointment of Safety Consultant

i. For carrying out safety audit of the Project, Developer shall appoint from time to time, one or more qualified firms or organization as its consultant **(the "Safety Consultant").** The charges for such Safety Consultant shall be borne by the Developer.

ii. Once in three months during the construction period and once a year post construction completion, a safety audit shall be carried out by the Safety Consultant. It shall review, compile and analyze the annual report and accident data of the preceding year, and undertake an inspection of the Project.

iii. The Safety Consultant shall complete the audit within a period of 7 (seven) days and submit a Safety Report **(the "Safety Report")** recommending specific improvements, if any, required to be made in the Project. The Safety Report shall be submitted to NMC, in 3 (three) copies and one copy shall be submitted to NMC Independent Engineer.

iv. One copy each of the Safety Report shall be forwarded by NMC to the Developer and the Independent Engineer forthwith.

c. Safety measures during Contract Period

i. The Developer shall develop, implement and administer a surveillance and safety program for the Project and the users thereof and its and the Contractor's labor and personnel engaged in the provision of any services under any of the project contracts, including correction of safety violations and deficiencies, and taking of all other actions necessary to provide a safe environment at the Project Site in accordance with Applicable Laws and Good Industry Practice.

ii. Take all responsible precautions for the prevention of accident on or about the Project Site and provide all reasonable assistance and medical aid to accident victims.

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iii. Maintain liaison with emergency service providers and seek necessary police assistance on payment of applicable charges for the provisions of such services as are not provided in the normal course or are available only on payment.

iv. The Developer shall keep a copy of every first information report (the "**FIR**") recorded by Police with respect to any accident occurring in the Project. In addition, the Developer shall also collect data for all cases of accidents not recorded by the Police. The information so collected shall be summarized in the form prescribed by the Authority for this purpose. The Developer shall also record the exact location of each accident on the Layout plans and aforesaid data shall be submitted to NMC at the conclusion of every quarter.

v. The Developer shall submit to NMC before 31st (thirty first) May of each year, an annual report (in ten copies) containing, without limitation, a detailed listing and analysis of all accidents of the preceding Accounting Year and the measures taken by the Developer for averting or minimizing such accidents in future.

vi. Once in three months during the construction period and once a year post construction completion, a safety audit shall be carried out by the Safety Consultant to be appointed by the Developer. It shall review and analyze the annual report and accident data of the preceding year, and undertake an inspection of the Project Facilities. The Safety Consultant shall complete the safety audit within a period of 7 (seven) days and submit a Safety Report recommending specific improvements, if any, required to be made in the Project.

6.4.6 Environmental Compliance

a. The Developer shall, at all times, ensure that all aspects of the Project Facilities/ Project Site and processes employed in the Development thereof shall conform with the laws pertaining to environment, health and safety aspects, policies and guidelines related thereto. The Developer shall obtain and maintain from time to time all necessary clearances from empowered Government Agency and for this purpose shall carry out the necessary studies for assessing the impact of the Project on the environment.

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b. Overriding powers of the Authority for Environmental Compliance

If in the reasonable opinion of NMC, the Developer is in Material Breach of its obligations under this Agreement, and such breach is causing or likely to cause the Project to violate environmental norms or cause any nuisance to the surrounding areas, NMC may, without prejudice to any of its rights under this Agreement including Termination thereof, by notice requiring the Developer to take reasonable measures immediately for rectifying or removing such hardship or danger, as the case may be.If the Developer fails to rectify or remove such hardship or danger, NMC may, without prejudice to any other rights or remedy available to it under this Agreement, remove such hardship at the risk and costs of the Developer. The cost incurred by NMC in rectifying such default of the Developer, as certified by the Independent Engineer/ NMC, shall be reimbursed by the Developer to NMC within 7 days from the date of receipt of a claim in respect thereof from NMC.

c. NMC shall assist the Developer in obtaining the Applicable Permits for felling/transplantation of trees as per the Schedule 9 annexed with this Agreement for implementation of the Project.

d. The cost of such felling/ transplantation shall be borne by the Developer.

6.5 Obligations relating to Project Agreements

6.5.1 It is expressly agreed that the Developer shall, at all times, be responsible and liable for all its obligations under this Agreement notwithstanding anything contained in the Project Agreements or any other agreement, and no default under any Project Agreement or agreement shall excuse the Developer from its obligations or liability hereunder.

6.5.2 The Developer shall submit to NMC the drafts of all Project Agreements, or any amendments or replacements thereto, for its review and comments, and NMC shall have the right but not the obligation to undertake such review and provide its comments, if any, to the Developer within 21 (twenty one) days of the receipt of such drafts. Within 7 (seven) days of execution of any Project Agreement or amendment thereto, the Developer shall submit to NMC a true copy thereof, duly attested by a Director of the Developer, for its record. For the avoidance of doubt, it is agreed that the review and comments hereunder shall be limited to ensuring compliance with the terms of this Agreement. It is further agreed that no review and/or observation of NMC and/or its failure to review and/or

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convey its observations on any document shall not relieve the Developer of its obligations and liabilities under this Agreement in any manner nor shall NMC be liable for the same in any manner whatsoever.

6.5.3 The Developer shall ensure that each of the Project Agreements contains provisions that entitle NMC to step into such agreement, in its sole discretion, in substitution of the Developer in the event of Termination or suspension (the "**Covenant**") of the Project.

6.5.4 Notwithstanding anything to the contrary contained in this Agreement, the Developer agrees and acknowledges that selection or replacement of any Contractor shall be subject to the approval of NMC from national security and public interest perspective, the decision of NMC in this behalf being final, conclusive and binding on the Developer, and undertakes that it shall not give effect to any such selection or contract without prior approval of NMC. For the avoidance of doubt, it is expressly agreed that approval of NMC hereunder shall be limited to national security and public interest perspective, and NMC shall endeavour to convey its decision thereon expeditiously. It is also agreed that NMC shall not be liable in any manner on account of grant or otherwise of such approval and that such approval or denial thereof shall not in any manner absolve the Developer or its Contractors from any liability or obligation under this Agreement.

6.6 Change in Ownership

6.6.1 The Developer shall not undertake or permit any Change in its Ownership.

6.6.2 In case a Special Purpose Vehicle (SPV) is formed by the Developer for the purpose of implementing this Development Rights and fulfilling its obligations under this Agreement, the following is mandated.

a. The Lead Member or sole applicant, shall subscribe to minimum 51% (fifty one per cent) or more of the Equity of the SPV for the Development and Sales Period and/or till 100% realization of NMC Revenue Share.

b. The other members of the Consortium (i.e. except the Lead Member), shall subscribe to minimum 21% (twenty one per cent) or more of Equity of the SPV for the Development and Sales Period and/or till 100% realization of NMC Revenue Share.

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c. The members of the Consortium shall collectively hold 100% (hundred per cent) of the issued and paid up Equity of the SPV at all times for the Development and Sales Period and/or till 100% realization of NMC Revenue Share

6.7 Sole purpose of the Developer

The SPV having been set up for the sole purpose of exercising the rights and observing and performing its obligations and liabilities under this Agreement, the Developer or any of its subsidiaries shall not, except with the previous written consent of NMC, be or become directly or indirectly engaged, concerned or interested in any business other than as envisaged herein.

6.8 No Breach of Obligations

The Developer shall not be considered to be in breach of its obligations under this Agreement nor shall it incur or suffer any liability to the extent, if performance of any of its obligations under this Agreement is affected by or on account of any of the following:

i. Force Majeure Event in accordance with Article 12;

ii. NMC Event Default;

6.9 Taxes and Charges

a. The Developer shall pay in a timely manner, all taxes, duties, levies, cess and charges including but not limited to income tax, sales tax, goods and service tax, excise duty, customs duty, octroi and other rate and taxes that may be levied, claimed or demanded from time to time by any Government Agency including any increase therein effected from time to time by any Government Agency, in respect of the Project. Project Cost includes all taxes and duties due and no extra payment of any kind shall be made by NMC to the Developer in this regard.

b. New tax regimes/rates as imposed/proposed by the Central/State Government from time to time including but not limited to the Goods and Services Tax (GST) 2016 shall be adhered to by the Developer.

c. Pay all charges, taxes, fines, late fees, including the property taxes and other outgoing in relation to the use of Project Site, utilities and services by the Developer or its Contractors and agents during the implementation and operation of the Project such as water supply, sewage disposal, fuel garbage collection and disposal, electric power, gas, telephone and other utilities and

ensure avoidance of any disruption thereof due to disconnection or withdrawal of the facility.

d. The Property Tax shall be applicable as per the Section 139 of the MMC Act 1949.

The primary responsibility for payment of the Property Tax shall be with the holders of the respective project components.

For the purpose of the payment of the Property Tax, the Developer shall be considered as the holder of the property on receipt of the full/part Occupancy Certificate for the respective project components.



Article 7. NMC's Obligations

In addition to and not in derogation or substitution of any of its other obligations under this Agreement, NMC shall have the following obligations:

NMC shall:

a) Within 75 days from the Effective Date NMC shall handover to the Developer the peaceful physical possession of the Project Site.

b) NMC shall on its reasonable effort basis provide support to the Developer in obtaining timely approvals, permission and authorization for performance for obligations for the Project.

c) Facilitate in a timely manner all such authorization which the Developer may require or is obliged to seek from NMC under this Agreement, in connection with implementation of the Project and the performance of its obligations.

d) Provide authorization for availing of utilities such as power, water, sewerage, telecommunications or any other incidental services / utilities on receipt of request from the Developer to make available such authorization;

e) Approve the Detailed Project Report within thirty days of submission.

Article 8. Representation and Warranties

8.1 Representation and Warranties of Developer

The Developer hereby represents warrants and covenants to NMC for itself that **("Developer Warranties")**

a. The Developer has been incorporated and organized and is validly existing and in good standing, under Applicable Law. The Developer has the corporate power and authority to own, operate and maintain assets and properties and to carry on its business as currently conducted and proposed to be conducted.

b. The copies of the Memorandum of Association and Articles of Association (having attached thereto copies of all such resolutions as per law, to be attached thereto and all amendments made to date) that have been delivered to NMC are true, accurate and complete. All legal and procedural requirements and other formalities concerning such memorandum of association and articles of association have been duly and properly complied with in all material respects.

c. The Developer has the legal right, power and authority to execute, deliver and perform this Agreement. All action on the part of the Developer and all corporate action on the part of the Board of directors of the Developer necessary for the authorization, execution, delivery of and the performance of all obligations of the Developer have been taken.

d. No further consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any Governmental Authority or any other person is required in connection with the execution and delivery of this Agreement.

e. This Agreement is valid and would constitute the binding obligations on the Developer enforceable against the Developer in accordance with their terms. This Agreement is, and when executed be, the valid and binding obligation of the Developer, enforceable against the Developer in accordance with its terms hereof. As of date, as regards the Developer, there is no applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors" rights generally.

f. The execution and delivery by the Developer of this Agreement and the performance by the Developer of its respective obligations under this Agreement do not and will not:

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i. Constitute a breach or a default under any Memorandum of Association and Articles of Association of the Developer.

ii. Result in a breach of, or constitute or default under, any contract to which the Developer is a party or by which it is bound.

iii. Result in a violation or breach of or default under any applicable law or regulation or of any order, judgment or decree of any Governmental Authority to which the Developer is a party or by which the Developer is bound.

g. No order writ, injunction or any decree of any court has been made and no resolution has been passed for the winding up of the Developer for a provisional liquidator to be appointed in respect of the Developer and no petition has been presented and no meeting has convened for the purpose of winding up the Developer. No receiver has been appointed in respect of the Developer or all or any of its assets. The Developer is not insolvent or unable to pay its debts as they fall due.

h. It has the financial standing and capacity to undertake the Project in accordance with the terms of this Agreement;

i. No sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the Development Rights or entering into this Agreement or for influencing or attempting to influence any officer or employee of NMC in connection therewith; and

j. All information provided by the Selected Bidder in response to the Request for Proposal or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects.

8.2 Representation and Warranties of NMC

NMC represents and warrants to the Developer for itself that (**"NMC Warranties"**):

a. It is the urban local body for the city of Nagpur, duly established under and functioning as per the MMC Act, 1949 (**"Act"**)and has the power to conduct its business as presently conducted and to enter into this Agreement;

b. It has the full power, authority and legal right to execute, deliver and perform its obligations under this Agreement and has taken all necessary sanctions and approvals and followed all the procedure required to authorize the execution, delivery and performance of this Agreement.

c. The execution, delivery and performance of this Agreement by NMC will not:

i. Violate any provision of the organizational documents of NMC.

ii. Conflict with or result in any Material Breach or violation of any of the terms and conditions of, or constitute (or with notice or lapse of time or both constitute) a default under, any agreement to which NMC is a party or by which NMC is bound.

iii. Violate any court order, judgment, injunction, award, decree or writ against, or binding upon, NMC or its securities, properties or business.

iv. Violate any law or regulation of India.

8.3 Obligation to Notify Change

In the event that any of the representations or warranties made/ given by a Party ceases to be true or stands changed, the Party who had made such representation are given such warranty shall promptly notify the other of the same.

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Article 9. Disclaimer

9.1 The Developer acknowledges that prior to the execution of this Agreement, the Developer has, after a complete and careful examination, made an independent evaluation of the Site, Request for Proposal, Scope of the Project, Specifications and Standards, Safety Requirements, existing structures, local conditions, physical qualities of ground, subsoil, and geology, and all information provided by NMC or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. NMC makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Developer confirms that it shall have no claim whatsoever against NMC in this regard.

9.2 The Developer acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 9.1 above and hereby acknowledges and agrees that NMC shall not be liable for the same in any manner whatsoever to the Developer and its Associates or any person claiming through or under any of them.

9.3 The Parties agree that any mistake or error in or relating to any of the matters set forth in Clause 9.1 above shall not vitiate this Agreement, or render it voidable.

9.4 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in Clause 9.3 above, that Party shall immediately notify the other Party, specifying the mistake or error; provided, however, that a failure on part of NMC to give any notice pursuant to this Clause 9.4 shall not prejudice the disclaimer of NMC contained in Clause 9.1 and shall not in any manner shift to NMC any risks assumed by the Developer pursuant to this Agreement.

9.5 Except as otherwise provided in this Agreement, all risks relating to the Project shall be borne by the Developer and NMC shall not be liable in any manner for such risks or the consequences thereof.

Article 10. Financial Covenants

10.1 Performance Security

a. The Developer shall submit to the NMC, a Performance Security of Rs. 5,00,00,000/- (Rupees Five Crores only) in the form of a Bank Guarantee, in the format as set out in **Schedule 4,** from the list of nationalized Banks issued by NMC which is valid till 90 days after the period of 84 months from Effective Date, in favor of Nagpur Municipal Corporation, payable at Nagpur. The Performance Security shall be extended by the Developer upon direction of NMC in the event of extension by NMC. Developer shall be solely responsible for the renewal of the Bank Guarantee.

b. The Performance Security shall be for a period of 84 (eighty) months plus 90 (ninety days) or till the subsistence of the Development Agreement, whichever is later. In case, the Developer submits the Bank Guarantee for a lesser tenure than mentioned in clause 10.1 a above then it shall be the responsibility of the Developer to renew the same 30 days before the due date and NMC shall not be responsible in any way for its renewal. In case the Bank Guarantee lapses then an equivalent amount shall be withdrawn from the Escrow Account and kept separately as Performance Security. No interest shall be paid on such withdrawal.

c. The Developer shall procure only such Bank Guarantee from the Bank which shall have a claim period of the Performance Security Bank Guarantee shall be 12 months beyond the validity period.

d. The Developer agrees that the Performance Security shall be kept valid for a period of 84 (eighty) months plus 90 (ninety days). Provided that if the Development Agreement is terminated due to any event other than Developer's Event of Default, then the Performance Security subsisting as of the Termination Date shall, subject to NMC's right to receive amounts, if any, payable by the Developer to NMC under this Agreement, be duly discharged and released to the Developer.

e. The decision of NMC as to any breach/delay having been committed, liability accrued or losses or damage caused or suffered shall be conclusive, absolute and binding on the Developer. The Developer specifically confirms and agrees that no proof of any amount of liability accrued or loss or damages caused or suffered by NMC under this Agreement is required to be provided in connection with any demand made by the NMC to recover such compensation through encashment of the Performance Security under this Agreement and that no document or any action shall be required other than the NMC's written demand as aforesaid.

f. Notwithstanding anything to the contrary in this Agreement, the Developer shall have the right to seek discharge of the entire Performance Security upon completion of the Development and Sales period, subject to other provisions of this Development Agreement.

10.2 Appropriation of Performance Security

a. Upon occurrence of a Developer Default, the NMC shall, without prejudice to its other rights and remedies hereunder or in law, been entitled to invoke and appropriate the relevant amounts from the Performance Security as Damages for such Developer Default as specified in this Agreement. Upon such invocation and appropriation from the Performance Security by NMC, in part or in full, the Developer shall, within 7 (seven) days thereof, replenish, in case of partial appropriation, the Performance Security to its original level, and in case of appropriation of the entire Performance Security provide a fresh Performance Security, as the case may be, and the Developer shall, within the time so granted, replenish or furnish fresh Performance Security as aforesaid failing which the NMC shall be entitled to terminate this Agreement in accordance with provisions of Article 14 hereof. The provisions of this Article 10.2 shall apply mutatis mutandis to such fresh Performance Security.

b. Release of Performance Security:

i. The Authority shall release the Performance Security forthwith, upon expiry of 120 (one hundred and twenty) days from the Transfer Date, subject however to deductions towards any outstanding amount payable to Authority by Developer in terms hereof.

ii. The Performance Security shall remain in force and effect by the Developer, throughout the Development & Sales Period.

iii. Upon request made by the Developer for release of the Performance Security along with the particulars which establish satisfaction of the requirements, the Authority shall release the Performance Security forthwith.

iv. If the Agreement is terminated due to any event other than an Event of Default by the Developer, the Performance Security shall, subject to the NMC's right to receive or recover amounts, if any, payable by the Developer to NMC under this Agreement, be duly discharged and released to the Developer.

10.3 Payments:

10.3.1 Pursuant to grant of development and sales rights by NMC and in consideration of grant of rights in accordance with this Agreement, the Developer shall pay to NMC the following payments:

a. **Part A:** Disburse the Upfront Premium to NMC in following manner:

i. Rs 2 crores within 30 days of Effective Date.

ii. Balance Rs 9.50 crores by way of 5 equal instalments of Rs 1.90 crores each to be paid every 2 months i.e. within 10 months from Effective Date.

b. **Part B:** NMC Revenue Share as quoted in the Financial Offer of Rs.....crores after adjustment of the Upfront Premium of Rs 11.50 crores.

c. Payment of the Sales Proceeds shall be done proportionate to the Sales Proceeds after adjusting for the Upfront Premium of Rs. 11.50 crores.

d. The detailed payment schedule for the amount as stated in clause "b" above is as mentioned below:

S.N.	Sales Proceeds Receipts of the various components of the Mixed Use Commercial Complex	Minimum Percentage of Part B payable to NMC on receipt of corresponding Sale Percentage
1.	20%	25%
2.	45%	50%
3.	70%	75%
4.	80%	100%

e. The Developer shall have an option of paying the entire NMC part within 4 (four) years from the Effective Date.

f. In case the payment of Part B to NMC exceeds 48 (forty eight months), then the balance amount of Part B payable to NMC shall be escalated by a percentage equivalent the increase in Ready Reckoner Rates from previous year for the Project Site area for the upcoming respective year.

g. 100% of the Lump-sum Financial Offer amount payable to NMC increased proportionately with the inflation percentage as mentioned above shall be

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payable by the Developer on or prior to the completion of 80% of the projected Sale proceeds as shown in the financial proposal from the Project.

h. 100% of the Lump-sum Financial Offer amount payable to NMC shall be payable by the Developer on or prior to the completion of 80% of the Sale Process from the Project or within 48 months from the Effective Date, whichever is earlier.

i. On early payment of the NMC Revenue Share by the Developer, a discount at the rate of Reserve Bank of India Bank Rate prevailing on the day of early payment would be awarded to the Developer on the amount paid earlier than the scheduled date.
Example: If the obligation of the Developer is to pay "x" amount in coming six months in such a case the discount shall be calculated at the prevailing RBI Bank Rate on the day of such payment up to the last day of ending of such six months.

j. All transactions of the project shall be routed through a dedicated Escrow Account to be opened and maintained by the Developer.

k. The payment of NMC Sales Revenue share shall also be through the Escrow Account mechanism. The payment schedule of the NMC Sales Revenue shall be as per the Clause 10.3.1.d above and it shall be routed to NMC through the exclusive account opened by the Developer for this project to receive the payment from buyer. All the payments from buyer shall be deposited in this Escrow Account only.

l. NMC shall have the right and the Developer hereby expressly grants to NMC the right to recover its Revenue Share and any other payments directly from the Escrow Account and for that purpose the Developer hereby expressly authorizes NMC and hereby gives irrevocable instructions to the Escrow Bank to make payment from the Escrow Account in accordance with the instructions of NMC.

m. The Developer shall be at a liberty to decide the selling price for the various components of the Project depending on the prevailing market sentiments which shall be informed to the NMC Strategic Committee before finalisation of final terms with the prospective buyer. **However the Selling Rate shall at no times be equal to or lower than the prevailing Ready Reckoner Rates for the zone.**

10.4. Sale Proceeds:

a. The Developer has, inter-alia been granted development and sales rights to finance, build, operate and manage market and undertake sales of a Mixed Use Commercial Complex as part of Project Facilities. The Developer shall be permitted to collect sale proceeds, entry/membership fees, parking, advertisements etc from the sale of various components of the Project.

b. Post signing of the Development Agreement with NMC and on issue of Commencement Certificate from NMC, the Developer can market the project and undertake the Sales of the various components of the said Project.

c. The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement.

d. The Sale Agreement with prospective buyers shall be a tripartite agreement with NMC, Developer and the buyer as the three parties. NMC shall nominate its authorized signatory for the purpose of registration of the tri-party agreement immediately on intimation by the Developer.

e. The Sale of property/components of the Project shall be on Free Hold basis.

10.5.1 Revenue from Parking and Advertisement:

a. The planning for the parking at the Project Site shall be strictly in consonance with the UDCPR 2020 (as modified) on the date of approval of the plans.

b. As per the present planning, parking is proposed on the lower & upper basements of the proposed building. It should be the endeavour of the Developer to maximize the parking area.

c. Developer should plan for development of mechanical parking facilities at the Project Site.

d. The Developer can earn Parking Revenue from the project till completion of the Development and Sales period.

On transfer of the project to the society formed by the buyers at the end of the Development and Sales period, all the rights and privileges including the parking rights shall be transferred to the society formed by the buyers.

e. The Developer can charge fees/O&M charges from the buyers/society for such operation & maintenance. The Developer shall manage its cost for such O&M from the fees/O&M charges collected/own resources and NMC shall in no way be responsible for any such O&M responsibilities and costs.

f. The Developer shall also identify and enlist the locations & spaces suitable for display of commercial advertisements in consonance with the present planning and in consultation with the Independent Engineer of NMC.

g. The location & spaces shall be compliant with rules and regulations prevalent at that point of time. The area and list shall be submitted and got approved from the competent authority and shall be notified to NMC.

h. The Developer can plan the advertisements as per its own planning but within the applicable laws of Maharashtra state and/or NMC in this regard.

The Developer can earn Advertisement Revenue from the project till completion of the Development and Sales period.

On transfer of the project to the society formed by the buyers at the end of the Development and Sales period, all the rights and privileges including the advertisement rights shall be transferred to the society formed by the buyers.

i. The content of advertisements displayed at the approved locations must be in accordance with the guidelines of Advertisement Council of India;

10.5.2 Revenue from Additional Development:

a. Shall be calculated as per Clause 4.5 of the Agreement.

b. In case of any additional revenue accruing to the Developer due to any amendment in the DCR or due to introduction of any policy regarding the Transferable Development Rights (TDR) notified by NMC or Government of Maharashtra or Government of India, the calculations of such revenue shall be submitted to the Strategic Committee of NMC and the equitable sharing of the benefit shall be mutually decided.

c. The NMC share of Revenue from the Project shall be deposited by the Developer in the NMC Bank Account within 02 days of receipt of Revenue in the Escrow Account.

10.6. Financing:

10.6.1 Financial Close

a. The Developer shall at its cost, expenses and risk make all or any financing arrangement as would be necessary to implement the Project and achieve the Financial Close within 120 days from the Letter of Award. In the event of delay, it shall be entitled to a further period not exceeding 30 (thirty) days, subject to payment of Damages to NMC in a sum calculated at the rate of 0.25% of the Performance Security for each week of delay. In any case, the delay in achieving Financial Close shall not impact the Effective Date.

b. Notwithstanding anything to the contrary contained in this Agreement, in the event that Financial Close does not occur, for any reason whatsoever, within the period set forth in Clause 10.6.1(a) or the extended period provided there under, all rights, privileges, claims and entitlements of the Developer under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Developer, and the Development Agreement shall be deemed to have been terminated.

c. The Developer is not allowed to mortgage, hypothecate or create lien or procure financial assistance for development of the Project Site by creating any third-party interest over the Project Land. The Project land, at all times till completion of the construction and sales shall be in the name and ownership of NMC.

d. The Developer shall, upon occurrence of Financial Close, notify NMC within 7 (seven) days of the Financial Close with a copy of letter received in this regard from the Senior Lenders.

e. Within 7 (seven) days after the execution of the Financing Documents the Developer shall provide true copies of the same duly attested by a Director of Developer.

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10.6.2 Termination due to failure to achieve Financial Close

a. Notwithstanding anything to the contrary contained in this Agreement, in the event that the Financial Close does not occur, for any reason, attributable to Developer only , within the period set forth in Clause 10.6.1 (a) above, all rights, privileges, claims and entitlements of the Developer under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Developer, and the Development Agreement shall be deemed to have been terminated by mutual agreement of the Parties, without prejudice to any remedies that the NMC shall have under this Agreement and/or under the Applicable Laws.

b. Upon Termination under Clause 10.6.2 (a) above, NMC shall be entitled to encash the Performance Security as liquidated damages. Provided, however, if Financial Close has not occurred solely as result of NMC being in default of any of its obligations under this Agreement it shall, upon Termination, return the Performance Security.

This Clause 10.6 shall be invoked only in case, the Developer plans to implement the Project through external/bank financing and fails to achieve the Financial Closure and the Project implementation is stalled or delayed. The Funding Plan of the Developer has to be submitted as a part of Conditions Precedent Clause 2.2 a-iv.

VOLUME III

DESIGN PROPOSAL

FOR

DESIGN, BUILD, FINANCE, MAINTAIN and SALE OF COMMERCIAL COMPLEX PROJECT on

NMC PLOT NO5, ORANGE CITY STREET PROJECT at NAGPUR

Project Proponent:

NAGPUR
MUNICIPAL CORPORATION

Issued by:

Office of the Executive Engineer (Project),

Civil Lines, Mahanagar Palika Marg, Nagpur.

Telephone: 0712-254283

Email: eeprojectnmc@gmail.com

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1.1 ANNEXURE I: EXISTING CONDITION OF THE SITE.

1.2.1 Site Location:

1.2.1.1 The Orange city street project, Plot 05 is a locality in the south west of Jayprakash Nagar, Maharashtra.

1.2.1.2 It is part of Orange City Street, Commercial Project.

1.2.1.3 The proposed site is in a prime locality of proposed Orange City Street due to its proximity to Commercial area and metro station

1.2.1.4 This site also has a big advantage of Public Amenities like Multiplex, Schools, Hospitals, Police station and Market.



1.2.2 Road network:

1.2.2.1 The site abuts 24m wide internal road

1.2.2.2 The site location is such that it gets easy access to Wardha road and ring road which further links to other parts of the city.

1.2.2.3 There are 2 entrances to avoid vehicular congestion within the site.

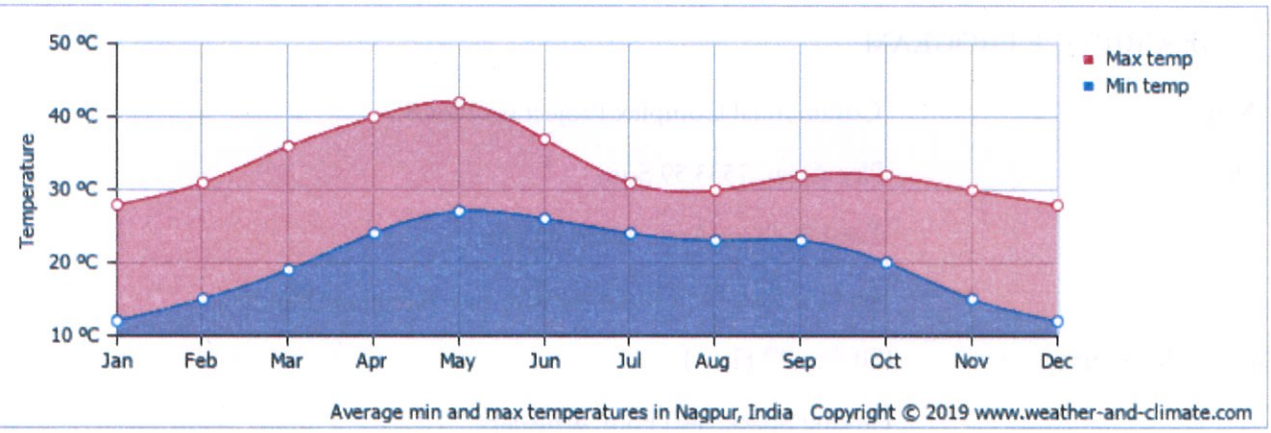
1.2.3 Surrounding:

1.2.3.1 The site is surrounded by Housing to the north and south.

1.2.3.2 This site also has a big advantage of Public Amenities i.e Metro, proposed city bus stops and the airport is about 2.0 Km radius from the site.

1.2.4 Climatology:

1.2.4.1 Nagpur has a tropical savannah climate with dry prevailing conditions for most of the year. It receives about 150mm rainfall in the month of June. The amount of rainfall increases to 294 mm in the month of July. Gradual decrease in rainfall has been observed from July to August (278 mm) and September (168 mm).



1.2.4.2 The warmest months of the year are March, April and May being the hottest of the months. Winter last from November to January.

1.2.4.3 The monsoon creates steady strong winds from December to April, and calm winds from June to October.

1.2.4.4 Source: Website- www.weather-and-climate.com

1.2.5 Topography:

1.2.5.1 Nagpur is located in the exact center of the Indian peninsula. The city has a zero mile locating the geographical center of India. Used earlier for measuring distances in India

1.2.5.2 The underlying rock strata are covered with alluvial deposits resulting from the flood plain of the Kanhan River.

Refer attached Site Survey Plan.

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Schedule A: Context

1.2 PROPOSED DEVELOPMENT PROGRAM

SR. NO.	DESCRIPTION	AREA IN SQM
1	PLOT AREA	7533.59
2	TOTAL AREA OF PLOT IN POSSESSION	7533.59
3	FSI	2.75
4	AVAILABLE BUILTUP AREA	20717.389
5	AVAILABLE HEIGHT	46.31 Mtrs

1.3 DESCRIPTIVE PROGRAM

Project Name : Commercial Complex Project on Plot 5.

Project Details : Plot Area: 7533.59 Sqm

Total Built-up Area: 36881.43 Sqm.

46.31m high G+9 Building with two Basement Floors

Retail Space/Office Space : (Gf th to 9th Floor)

Parking Space: 440 Four Wheelers

964 Two Wheelers

1.4 Applicable Standards and Compliances

Red Book Specifications, relevant IS Codes, National Building Code 2016, Medical Council of India (MCI) guidelines and other standard specifications suitable for Modern High rise buildings and latest technology will be followed in general except otherwise mentioned in Bidding Document

NOTE: All codes and standards means the latest where not specified otherwise the installation shall generally follow the Indian Standard codes of practice or relevant British Standard Codes of Practice in the absence of corresponding Indian Standards.

Schedule B

GENERAL DESCRIPTION AND SCOPE OF WORK

B.1 The brie scope of work shall be Construction of Proposed NMC PLOT 5 for Orange City Street at Nagpur (Ground+9 Floors) along with on-site infrastructure development through Detailed structure Design, Engineering, and Procurement & Construction of Building(s) Work including Civil, Sanitary & Plumbing, Water Supply, electrical, elevators and other allied works as per specification.. The scope of work also includes construction Basement, electrical sub-station, firefighting, DG set room, pump house, UG water tank, compound wall, gates, security cabins, service providers room, landscaping, parking area, driveways, ramps, rain water harvesting etc. in on-site infrastructure development.

B.2 The work is to be executed on **Design Buid Finance Maintain and Sale basis.** The Developer shall prepare the detail Design & Construction Drawings. The Developer shall also submit complete Building Design (including Structure, electrical, plumbing, Firefighting etc.) for necessary checking by the Consultants. The designs for building and ancillary structures are to be got proof checked and vetted from IIT/NIT.

B.3 Developer has to get the design vetted by IIT / NIT or equivalent Government Institute. The Design / Detail Drawings and Schemes shall have to be got approved from the Competitive Officer of the authority. Red Book Specifications, relevant IS Codes, National Building Code 2016, Medical Council of India (MCI) guidelines and other standard specifications suitable for Modern High rise Residential buildings and latest technology will be followed in general except otherwise mentioned in Bidding Document. Cost of appointing IIT/NIT and proof checking work will be borne by the Developer, and Developer shall submit "Design Basis Report" with all design calculations and design drawings to Authority's Engineer / PMC.

B.4 Developer scope of work includes preparation of complete structural design & Drawings, Construction & Commissioning of Building along Plumbing, Electrical, Firefighting and other civil works. All GFC drawings shall be prepared by the Developer.The design and drawings for structure and MEP (services viz. Electrical, Plumbing and Firefighting) shall be completed including proof checking from IIT/NIT, at their own cost.Also, all the GFC drawings including Structural and services MEP drawings will be approved in coordination with Architect.

B.5 Obtaining mandatory approvals from Local Bodies / State & Central Authorities / Municipal

Corporation etc. shall be in the scope of the Developer in case of any deviation in design or master plan from the drawings submitted by the Project Consultant. All other Approvals as per latest Building with up to date corrections slips, necessary Environmental Clearance from the Appropriate Authority, NOC from Fire Department, NOC from Airport Authority of India, Atomic Energy Regulatory Board (AERB), Govt. of India etc. and any other statutory Approval etc. would be required in case of any deviation from the approved drawings.

B.6 All the Testing of materials, workmanship to be done as per specification and instruction of Authority's Engineer / PMC

B.7 All the Statutory compliances / labour laws / insurance shall be complies as per Central / state / local Authorities.

B.8 The scope of Works & Specifications are given in general but they are not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and / or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works (like site enabling works, barricading, mobilization, demobilization of equipment, plants etc.), which are not mentioned in the contract document / specifications but will be necessary to complete the work shall be deemed to have been executed by the Developer for various components of work.



Brief Scope of Work for this Tender:

- Structural work
  - RCC work including form work
  - Reinforcement work
  - Expansion joint
- Masonry work
  - AAC block masonry
  - Rubble masonry
- Plaster (Internal and External)
  - 12mm thick in single coat in cement mortar 1:4
  - 2mm thick wall care putty
  - sand faced plaster at external face
- Waterproofing
  - Chemical and BBCC water proofing at toilet and bath
  - Terrace water proofing
  - OHT water proofing
  - Water proofing at UGT and lift pit
- Floor and Wall finishes
  - Vitrified Tile flooring and skirting
  - Ceramic Tile flooring and dado
  - Granite stone flooring and skirting
  - Kota stone at flooring, skirting, treads and risers
  - Tremix at parking areas.
- Timber, metal joinery for Doors / Windows
  - Flush door with metal frame
  - Fiber glass reinforced polyester door with frame
  - 2hrs. Fire rated metal doors, 1hr. fire rated wooden doors
  - Aluminium windows, Ventilator
- Sundry metal works
  - Mild steel safety grill
  - Mild steel entrance gate
  - Rolling shutters
  - M.S. and Stainless steel railing, handrail
- Gypsum False ceiling

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- Painting (Internal and External)
  - Plastic emulsion paint
  - Texture paint
- Driveway and parking areas

B.9 In case, some of descriptions are missing in scope of work or specifications in the Bidding Documents shall be executed in the CPWD Specifications, NBC-2016 (National Bidding Code 2016) , IS Codes or according to sound engineering practices so as to make the building including related services fully functional.

B.10 **Defects Liability Period from the date of certified final completion of the contract in all respect**

a)	Waterproofing of Terrace, WC, Bath, Kitchen Sink, Balconies, Decks, Lift Machine Room Roof, Water Tanks, chajjas, Basement etc.	:	10 (Ten) Years
b)	Building Structure	:	10 (Ten) Years
c)	Anti-termite Treatment	:	10 (Ten) Years
d)	Seepage & Dampness through Walls	:	10 (Ten) Years
e)	Transformers	:	10 (Ten) Years
f)	D.G. Sets	:	10 (Ten) Years
g)	Lift / Elevators	:	10 (Ten) Years
h)	Pumps & Pumping Machinery (Domestic & Fire Fighting)	:	10 (Ten) Years
i)	For Balance Work	:	10 (Ten) Years

B.11 **GUARANTEE FOR SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURES FOR AT LEAST 50 YEARS**

i) The Developer shall ensure that the structure of buildings constructed for the tenements are durable and shall last for a period of at least 50 years.

ii) The strength as well as durability shall be considered explicitly at design stage.

iii) The structure shall be designed for loads and stresses as mentioned in relevant applicable IS Codes and as per provision of NBC. The RCC designs of buildings shall be based on consideration of earthquake forces as per prevailing relevant IS and seismic coefficient shall be assumed for calculation of earthquake forces as prevailing in relevant IS codes. The importance factor of the buildings shall be considered as per code.

Following clause of IS 13920:2016 has to be followed but not limited to.

The provisions for RC structures given herein apply specifically to monolithic RC construction, and not for Precast RC structure. Precast and / or prestressed concrete

members may be used, only if they are designed to provide similar level of ductility as that of monolithic RC structures during or after an earthquake. Likewise, flat slab structures must have a lateral load resisting system capable of providing similar level of performance as envisioned in this standard and must be designed for drift compatibility as per 11. Specialist literature must be referred to for design and construction of such structures. The adequacy of such designs shall be demonstrated by adequate, appropriate experimentation and nonlinear dynamic structural analysis.

iv) The structure shall therefore be designed for 'Limit state of Serviceability' as well 'Limit state of collapse' to ensure safe performance of structure during service life.

v) For any type of foundation required for buildings in case, the soil and the sub-soil water at the site has high sulphate and chloride content, the Developer shall have to take utmost precautions to obtain a dense, concrete of low permeability.

vi) Relevant applicable design controls; as laid down in IS 456; shall be exercised in respect of wear & deterioration of concrete so as to make the structure to give satisfactory service and safety during its service life by way of limiting actual stress values within permissible limits under intended loads.

vii) In observing the design controls, various code of practice and design guides, which give recommendations on durability, shall be followed. The minimum cement content, water cement ratio, minimum grade of concrete, minimum cover to reinforcement for exposure conditions of environment in Nagpur shall be strictly followed.

viii) The mix design for concrete of various grades, shall be as per latest relevant IS specifications keeping in view both strength and durability.

ix) The concrete shall be of low permeability to be durable for 50 years. For this purpose,

a) The concrete shall be strong and dense with sufficient low water cement ratio.

b) The concrete shall be compacted thoroughly.

c) Sufficient hydration of cement shall be ensured through proper curing methods.

d) The aggregate cement ratio for given aggregate shall be sufficient to provide adequate workability with low water cement ratio so that concrete can be compacted with means available with the Developer. Use of plasticizers for workability without increasing the water cement ratio.

x) The Developer shall be responsible to take and implement adequate measures as laid down in relevant applicable IS codes while designing the sub-structure to ensure non-deterioration of foundations under the presence of sulphate and chlorides in the soil/ sub-soil water as revealed during actual geotechnical investigation of the project site(s).

xi) The sub-structure as well as super-structure shall be designed for relevant Exposure condition and / or as revealed from site investigations and shall be conforming to applicable IS provisions to ensure safe performance of structure during service life.

xii) Developer shall take into considerations the creep and long term deflection criteria during service life for various prefab structural elements and accordingly ensure the adequacy of sections in conformity with IS provisions.

xiii) The Developer shall ensure desired performance of various joints in prefabricated members during design as well as execution stage so that structural integrity under applicable intended loading conditions will be assured during service life of structure.

xiv) The Developer shall be responsible to design the structure for 'Limit state of Serviceability' limiting the crack width within permissible limits as per IS code to ensure safe performance of structure during service life.

xv) The Developer shall be responsible for damage/deterioration of structural members due to weathering conditions till expiry of Defects Liability Period as prevalent when structure is erected / constructed.

xvi) The NMC/Client officials shall inspect the building for its durability and inform the Developer. The repairs needed except due to lack of proper maintenance shall have to be done by the Developer at their risk and cost.

xvii) The Developer shall ensure that the work is executed with adequate supervision and that the execution of construction complies with the specifications. For this purpose, the Developer shall carryout various tests on materials and finished items as per relevant IS specifications.

xviii) The curing affects primarily the concrete in the cover to the reinforcement and by definition this is the concrete that protects the reinforcement from corrosion by the ingress of aggressive agent. The Developer shall therefore give very special attention to the curing of concrete. The period for curing mentioned in the IS code shall be strictly adhered to. The water used for curing shall be potable.

xix) The Developer shall give special attention to maintain the specified cover during execution as this is very important to transfer the forces in the reinforcement, to provide fire resistance to the steel and to provide an alkaline environment at the surface of the steel.

xx) The Developer shall ensure in the design that there shall be no excessive deflection, creep & cracks in the structure beyond permissible limits for 50 years.

B.12 IMPORTANT NOTE:

The Developer is required to do the structural design and construct the buildings taking into account the requirements of the codes, professional practices, etc. It is not possible to describe in details each and every item of the construction. However, some of the specifications of some of the items have been incorporated in the tender to avoid discrepancies and to have an equal basis for comparison amongst the Developers. Certain items may not have been described in the tender, however, they form part of this contract as

the Developer is supposed to construct the buildings as per Architect's drawing and complete the same in all respect so as to make the tenements habitable and safe. The drawings and design for all services viz. electrical, sewerage water supply, plumbing & sanitary, rain water disposal, fire-fighting etc. shall be submitted by the Developer and got approved from Authority's Engineer / PMC and NMC.

B.13 SUBMISSION REQUIREMENTS:

Submission shall be made in two copies of reports / write up / design and three copies of drawings shall be given duly signed by the Architect, Licensed Structural Engineer, Licensed Services Engineer, Developer and proof Consultants.

i) Structural Design - Design criteria, method of analysis, method of design, schematic drawings, references if any, durability considerations, specification, brief, preliminary designs & calculations, acceptance criteria, special reference to non-conventional concept, design be made, when the Developer is submitting his own design.

ii) System Designs for buildings & infrastructure works.

iii) Design brief i.e. Design Basis Report including specifications and acceptance criteria for ON-SITE Development, and preliminary design Calculations.

iv) Detailed write-up of the proposed technology including details of construction, structural details / joint details, test reports, certificates regarding various tests carried out on proposed building system establishing structural stability and behavior of joints / diaphragm action, walling details etc.

v) Brief on construction method and deployment of resources.

vi) Quality Control/Assurance brief including proposed organizational set up testing facility and frequency of testing for different materials.

vii) A site/layout plan showing the proposed development including services with north direction scale (1:1000).

viii) Cluster plans showing ON-SITE development under the scope. Scale (1:500).

ix) Details of dwelling units - Plans, Elevations, sections, type of foundations, founding levels etc. Scale (1:100).

x) Soft copy of all above submissions in a compact disk (CD).

xi) Structural Engineer's and Architect's certificates as per format given below.

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B.14 STRUCTURAL ENGINEER'S CERTIFICATE

It is certified that the structural design including safety from natural hazards like seismic, wind, fire etc. as per N.B.C./B.I.S./Specialized literature/Sound engineering practices has been prepared by duly qualified Structural Engineer meeting with stipulated NIT provisions and the same shall be used in proposed construction.

Signature of bidder	**Signature of Structural Engineer**
Name in Block Letters _____	Name in Block Letters _____
	Registration No _____
Address _____	Address _____
Date _____	Date _____

15 ARCHITECT'S CERTIFICATE

It is certified that the proposed buildings plans submitted for approval shall satisfy the safety and functional requirements as stipulated under National Building Code of India (with up to date amendments) and the information given therein is factually correct to the best of our knowledge and under understanding. It is also certified that building plan submitted are in consonance with provision of GDCR (As amended) and DCR.

Signature of bidder	**Signature of Architect**
Name in Block Letters _____	Name in Block Letters _____
	Registration No _____
Address _____	Address _____
Date _____	Date _____

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Annexure I

DECLARATION FOR SITE VISIT

.../...../2022

From,

To,
The Executive Engineer

SUB: Construction of Proposed NMC Commercial Complex on Plot 5, Orange City Street Project (G +9) along with on-site infrastructure development

Dear Sir,-

I/We have personally visited the site where the construction of the above works is proposed. I/We have collected the necessary market rates of Labour and material prevalent in the local market and the tendered rates have been worked out on the basis of these rates. I/We confirm that the materials required for the work are available of stipulated quantity. We have also considered the recent trends in the market regarding temporary shortages and fluctuation of prices.

I/We have carried out geotechnical investigations for sub structure and our quotes are based on the same and Bindings to us.

I/We have read and followed all the drawings, specifications, and conditions of the contract with Appendices thereto and we agree to abide by them.

We have also obtained the clarification and methodology to be followed for the execution of this work.

Yours faithfully,

For ---

DATE: .... / .... /..... TENDERER

Note : - Documents to be given on stamp paper of Rs . 100 issued not earlier than the date of tender notice for this work

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Annexure II

DECLARATION FOR ROYALTY CHARGES

I/ we hereby agree to pay all royalty charges as per government norms declared and updated time to time on consumption of minerals in this work like rubble, metal, sand, murrum etc. to revenue department, Govt. of Maharashtra.

I/ we hereby agree to produce receipts of such royalty charges to Executive Engineer NMC.

I/we hereby to agree to accept reimbursement of such royalty charges after production of such original receipts only.

I/ we hereby also agree that the Lump Sum Rates quoted for this work is not applicable for such reimbursement amount.

I/ we agree that if the evidence for payment of royalty charges for this work is not produced, NMC reserves right to pay the necessary royalty charges to the appropriate Authorities.

Signature of Developer

Note : - Documents to be given on stamp paper of Rs . 100 issued not earlier than the date of tender notice for this work

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c. The project Details and Area Statement.

C.1 PROPOSED DEVELOPMENT PROGRAM

Project Name : Commercial Complex Project on Plot 5.

Project Details : Plot Area: 7533.59 Sqm

Total Built-up Area: 37291.3 Sqm.

46.31m high G+9 Building with two Basement Floors

Retail Space/Office Space : 399579.5. ft. Area (Gf th to 9th Floor)

Parking Space: 440 Four Wheelers

964 Two Wheelers

C.2 CONSTRUCTION AREA STATEMENT

SR. NO.	DESCRIPTION	AREA IN SQM
1	PLOT AREA	7533.59
2	TOTAL AREA OF PLOT IN POSSESSION	7533.59
3	FSI	2.75
4	AVAILABLE BUILTUP AREA	**37122.19**
5	AVAILABLE HEIGHT	46.31 Mtrs

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SCHEDULE D

1. Design Standards

The Project including Project Facilities shall conform to design requirements set out in the following documents:

DESIGN BASIS REPORT

MEP SERVICES BRIEF DESIGN CONCEPT FOR COMMERCIAL BUILDING ON PLOT 5 AT ORANGE STREET CITY, NAGPUR

INTRODUCTION

Client is developing Commercial building at Orange Street City plot 5, Nagpur. Architect Hafeez Developer is the Principal Architect for the project.

- 2 Basement + G +9 + Terrace Restaurant (Commercial) floors, total built up Area 58974 sqm.
- Commercial building has been allotted in Plot Area 7534

sqm All the Services have been planned accordingly.

The object of this Brief is:

To identify the utility requirements & establish the Brief design concept for complete building.

- Based on these details and calculations use them as preliminary concept details for Estimation as per CPWD Plinth Area Rates (PAR).
- Estimate based as per Area calculated by Dongre PMC P.L. and Plinth Area Rates of CPWD

Estimate as per PAR basis of Entire Internal Services development of Mechanical, Electrical, Firefighting & Plumbing services. All the Infrastructure Services have been planned accordingly for complete development.

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Table 1 identifies Town planning approval for Plot development which is assumed as the Basis of this Design Brief:

AREA STATEMENT – BUILT UP AREA: TABLE 1 (DETAILED BUILT UP AREA BY DPMCPL)

The Services Systems for the project have been conceptualized based on the Architectural drawings and National Building Codes 2016 standards to produce a preliminary design Concept for purpose of Estimation as required for under standards of CPWD used for Estimation under Plinth Area Rates.

MECHANICAL (PLUMBING & VENTILATION)

It is proposed to provide for Plumbing, storm water drainage, rain water harvesting & recycling of such sustainable resources which would benefit the owners with value additions. Firefighting presently would be designed to cater to the protection from fire and life safety National building codes 2016 & Fire alarm to alert occupants, personnel and security to manage the fire conditions. Ventilation system shall be proposed in the design to provide Internal air quality for safe guarding the basic necessity of humans working at the premises i.e. is adequate air changes for freshness in ambient.

ELECTRICAL

It is proposed to provide for Electrical installation with possibilities of design provisions of power at Substation to be provided 33KV/ 415V supply by local utility service provider as well as by DG sets & renewal energy sustainable resources (Solar PV) which would benefit the owners with value additions. The preliminary design thought present adequate provision but would need to be reviewed based on the Power demand which would arise from time to see through the perspective of Owners. However design concept of Electrical installation is by far has been guided by Electrical Codes of practice & National Building Codes 2016 to create a road map for Owners to plan for area by area futuristic development.



DONGRE PMC PVT. LTD.
IMPERIAL HEIGHTS, AKSHAR CHOWK, VADODARA
TEL: (0265) 2980133,134

SUMMARY

VADODARA

DATE : 29-11-21

PREPARED BY : Chintan

PROJECT : ORANGE CITY STREET PROJECT_PIOT-5

ARCHITECT : AHC

CLIENT : NMC

CHECKED BY :

SR. NO.	PARTICULAR	UNIT	QTY.	NO. OF FLOORS	TOTAL QTY.	ROUNDUP QTY.
	PLOT 5					
1	**BUILT UP AREA**					
	Puzzle Parking pit	Sqm	2149.98	1.00		2150.00
	Basement 2	Sqm	4864.25	1.00		4864.00
	Basement 1	Sqm	4864.25	1.00		4864.00
	Ground Floor	Sqm	4592.16	1.00		4592.00
	First Floor	Sqm	1913.56	1.00		1914.00
	Second Floor	Sqm	4173.69	1.00		4174.00
	Third Floor	Sqm	4173.69	1.00		4174.00
	Fourth Floor	Sqm	4173.69	1.00		4174.00
	Fifth Floor	Sqm	4173.69	1.00		4174.00
	Sixth Floor	Sqm	4173.69	1.00		4174.00
	7th Floor	Sqm	4173.69	1.00		4174.00
	8th Floor	Sqm	4173.69	1.00		4174.00
	9th Floor	Sqm	4173.69	1.00		4174.00
	Restaurant & Terrace	Sqm	3023.95	1.00		3024.00
	Total	**Sqm**				**54800.00**
	Total	**Sq.ft.**	10.764			**589868.00**

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PLUMBING SYSTEM

A. INTRODUCTION

The Design concept covers the following points

- Basic assumptions
- Estimation of the Total Water Demand
- Water Distribution & sewage disposal

B. BASIC ASSUMPTIONS OF THE CONSULTANTS (REFER ATTACHED ASSUMPTIONS)

The Water Demand & Water Storage has been planned as per the NBC norms.

As per the same, the total population has been calculated for the project considering occupancy as per following.

For Office = 1 workstation occupant / 10

Sqm For Shop = 1 occupant / 10 sqm

For Restaurant = 1 seating / 3 Sq.mt

Similarly, the water demand has been calculated on the following National Building codes 2016

• For office / shops	45 liters / Person / day
• Landscaping	Not considered as area is paved with No landscape provision

The Storages have been planned as follows

In UGT Storage shall be 1.5 times of Daily Water Demand.

Flushing storage shall be near STP. From this tank flushing water will be pumped to OHT flushing compartment.

Municipal water Inlet, Fire fighting Siamese connection, Electrical Mains Power cable are assumed from Road on the North corner of the building and enter through west side wall. Drainage line from STP and Bypass shall be connected to Municipal First Sewage manhole.

These Local authorities' incoming services would expel from the building as per Architectural detail planning and existing lines of Municipality. Necessary opening shall be devised for provisions of these services.

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Location of UG Firefighting tank, Domestic water tank, flush tank, STP & Pump room for these services shall be located in area marked by Architect.

There are two different systems for water distribution viz. for Domestic & Flushing. The treated water from STP will be used for flushing. Rainwater harvesting water will be supplied to the nearby ground water aquafiers (The same needs to be confirmed by the MOEF consultant).

The source of water needs to be confirmed. Currently, it is expected from Municipal supply.

The Domestic water thus received is assumed to be potable (from Municipal authorities) shall be stored in Underground reservoir. The same shall be pumped to Overhead water tanks of building as applicable and further distribution by hydropneumatics pumping.

C. APPROXIMATE POPULATION AND WATER DEMAND CAN BE TABULATED AS GIVEN BELOW: (SEE ANNEXURE 1 WATER DEMAND CALCULATIONS)

			DOMESTIC SUPPLY		FLUSHING SUPPLY	
OFFICES & SHOPS	NO OF OFFICE	NO OF OCCUPANT OFFICES & SHOPS	UNIT DOMESTIC DEMAND (LPD)	TOTAL DOMESTIC DEMAND (KLD)	UNIT FLUSHING DEMAND (LPD)	TOTAL FLUSHING DEMAND (KLD)
OFFICES (1/10SQM)	182	3746	20	75	25	94
SHOPS (1/3 SQM)	12					
RESTAURANT	NO	NO OF SEATINGS TOTAL	UNIT DOMESTIC DEMAND (LPD)	TOTAL DOMESTIC DEMAND (KLD)	UNIT FLUSHING DEMAND (LPD)	TOTAL FLUSHING DEMAND (KLD)
RESTAURANT 1,2 &3	3	558	25	14	10	6
			TOTAL= DOMESTIC	88	TOTAL= FLUSHING	100

Based on the above assumptions, the daily water demand for the Domestic & Flushing water of the project has been estimated to be about @190 KLD (See attached Water Demand calculation statement). Total Tank requirement capacity of 1.5 times demand say 300 Cum, 200cum at Underground tank and 100 cum at overhead tank.

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Building shall have an Underground tank of 400 cum (200 cum for Water supply and 200 cum for Firefighting) & Overhead Tank 120 cum at roof (100 cum water supply & 20 cum of storage for Fire Fighting purpose).

D. SOURCE OF WATER SUPPLY

The principal source of water shall be from the nearby municipal mains as confirmed by the client. This is proposed to be used for the Domestic water requirements. The recycled water from the STP shall be used for the Flushing water after treatment.

E. WATER DISTRIBUTION SCHEME

Water is pumped using system of pumps or deliver from municipal mains to Firefighting tanks and the overflow of this Firefighting tank connect to the domestic water compartment of the UGT. Recycled water from STP flushing tank & domestic water from UGR will be pumped into the respective compartments of OHT of building.

F. SOIL / WASTE DISPOSAL Concept

The system shall be designed keeping in view the following:

- Natural Grading of the site.
- Architectural layout planning.
- Formation levels of Roads & Plinth levels of Block.
- Landscape layout with formation levels of different features.
- Subsoil water table.



Planning Approach

The system shall be designed as double stack pipe system as per NBC. Soil & waste shall be carried in separate stack pipes with vents, stack shall be provided with separate anti-siphonage pipe to safeguard the water seal. The sewerage system is ultimately connected to STP through sewer trap and excess sewage and bypass provided to connect to municipal line.

G. SEWAGE TREATMENT PLANT

Sewage Treatment Plant shall be designed for capacity equivalent to 75 % of estimated daily flushing water demand i.e., STP capacity for Building - 75 Cum/Day. Sewage treatment shall consist of Solid separation zone, Aeration zone & final sedimentation zone. Detail requirements for STP shall be

stipulated in the form of Data Sheet before inviting offers for STP. Effluent from STP shall be as per outlet parameters stipulated in Data Sheet & suitable for Flushing water supply. STP shall be compact, no foul smell, consuming minimum electric power, simple in Operation & Maintenance.

H. TREATED WATER STORAGE & PUMPING

Water treating plant is considered for availing Treated water which shall be stored in UG tank. The Treated water shall be used for various purposes along with Reverse Osmosis plant as per requirements

FIRE-FIGHTING SYSTEM

A. INTRODUCTION

Fire engineering is a field, which explores the various possibilities of preventing fires. It can be defined as the art and science of designing buildings and facilities for life safety and property protection in the event of an unwanted fire. This includes the application of scientific and engineering principles, based on an understanding of the phenomena and effects of fire and of reaction and behavior of people, property and the environment as well as the impact of fire protection systems including detection, alarm and sprinkler systems.

Stopping a fire early can save lives and assets. In fire protection, you would want all the effectiveness you can get, as fast as you can get it. Our Brief concept of planning of fire-fighting systems is designed to ensure fire detection and protection for all types of fire risks.

The Design Basis Report covers the following points

- Basic assumptions by the Consultants
- Provisions for Fire Fighting System
- Provisions for Fire Alarm System



B. BASIC ASSUMPTIONS OF THE CONSULTANTS (refer attached Assumptions)

All provisions for the fire-fighting shall be as per the provisions of the local fire authorities and as per relevant I.S. / NBC codes.

However the Chief fire officer's / local fire officer's requirement, No objections certificate preliminary guidelines etc., would be shared by developer to review these design criteria which would be incorporated from into the detailed design drawings which need to be reaffirmed with Local fire authorities through developers liaison agent responsible for obtaining final no objection and certificates.

Below table is based on Table 7 of National building codes 2016 Volume 2 Part 4 which form for developing the basis of brief design concept although it is recommended to have firefighting works carried out through Fire authorities approved Firefighting authorized Developer.

PROVISIONS FOR FIRE-FIGHTING SYSTEM AS PER NBC

Sr. No.	Systems Required/Not Required	Mixed Tower
1	Fire Extinguishers	
2	Hose Reel	
3	Dry Riser	
4	Wet riser	
5	Down Comer	
6	Yard Hydrant	
7	Automatic sprinkler system	
8	Manually operated electric fire alarm system	
9	Automatic detection and alarm system	
10	Underground & Overhead tank	R – UG Tank – 200 cum OHT– 20 cum capacity
11	Hydrant & Sprinkler pumps (at Pump house)	2850 LPM @ & Jockey pump 180 LPM

However actual provisions shall be as per provisional CFO NOC

C. PROPOSED PROVISIONS FOR FIRE-FIGHTING

➢ FIRE EXTINGUISHERS

Portable fire extinguishers shall be provided as per IS: 15683.

Portable Extinguishers of the following types shall be installed at strategic locations

- Dry chemical Powder type
- CO_2 type

Dry Chemical Powder Type

The Dry chemical powder type shall be of 5 Kg. Capacity and shall have the IS mark 2171 complete with powder and charged including with fixing bracket, fitted with gunmetal cap, and discharge hose and open grip nozzle.

CO_2 Type

The CO_2 Extinguisher shall be provided with ISI mark, with initial charge with high pressure cylinder, complete with wheel type valve, internal discharge tube, with high pressure discharge hose with horn and suspension brackets. The extinguisher shall have ISI mark of 2878 and capacity shall be 6.5 Kg.

- A fire reservoir of 2,00,000 liters will be provided in suction tank the firefighting system would consist of :
  i. Fire Hydrant & Hose Reels system
  ii. Automatic Sprinkler system

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- Hydrant System shall comprise of the following:
  - The main firefighting pump shall be provided with a wet riser of 150mm dia. GI class C pipe to provide a minimum pressure of 3.5 kg/sqcm. (45 PSI)
  - External hydrants are provided along the periphery of the property (or as per recommendation by the Chief fire officer) & connected to the ring main. Single outlet landing valves will be provided at External areas.
  - The Hydrant system will be connected to the wet risers will have electrically operated main pump, a jockey pump and an alternate source of Diesel Engine driven pump set when electricity failure takes place in event of fire.

    Water storage for Fire Fighting shall be provided in the UG Fire tank 2,00,000 litres Hydrant pump @ 2850 lpm and to maintain a head of 3.5 kg/ sq.cm., this shall be used to pressurize the hydrant system. It is also recommended to provide 1 nos 20,000 liters overhead at suitable location with staircase.
  - Single outlet landing valves will be provided at all Typical Hydrants shall be provided at each landing Level, with 65mm diameter canvas hose (15m long) and connection for 25 mm diameter rubber hose pipe directly to the Wet-riser with a valve (30m long).

- The System shall be fully charged to maintain the above indicated pressure and all operations of the pump shall be fully charged.

➢ The Sprinkler System shall comprise of the following:

- Sprinkler system will be connected to the wet risers will have electrically operated main pump, a jockey pump and an alternate source of Diesel Engine driven pump set when electricity failure takes place in event of fire.
- Water storage for Fire Fighting shall be provided in the OHT (1 no's 20,000 liters). Booster pump of 900 lpm and to maintain a head of 3.5 kg/ sq.cm. This shall be used to boost the pressure in the sprinkler system; through the sprinkler pump operation shall be automatic, when there is drop of pressure in the system. The risers shall be provided with installation control valves and hydraulic alarm. An electrical sensor (flow switch in branch line & tamper switch at each branch valve) connected to fire alarm panel planned to be located on the ground floor; so that it is possible to identify effected area immediately. There would be a drain arrangement on each floor shaft for testing of sprinklers for testing the operations of flow switch and tamper switches. Down comer of 150 mm diameter near the fire escape staircase.
- Sprinkler with Headed shall be provided at each Offices, shops, Restaurant and floor lobbies Staircase landing Level, with sprinkler and connection from pipe directly to the Wet-riser with a valve (solenoid type driven by Fire Alarm modules for each floor).
- Sprinkler with Headed shall be provided at each floor, floor lobbies, Staircase landing Level, with sprinkler to cover every 10 sqm. by one sprinkler and connection from pipe directly to the Wet-riser with a valve (solenoid type driven by Fire Alarm modules for each floor).
- The System shall be fully charged to maintain the above indicated pressure and all operations of the pump shall be fully charged

D. PROVISIONS FOR FIRE ALARM SYSTEM

Each Building shall also been provided with a intelligent hybrid addressable & conventional type Fire Alarm System.

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The System comprises of the following

➢ Main Fire Alarm Panel for Building in the Security/ reception/ ELV room.

➢ Manual Call Point & Hooters on each floor.

➢ Heat detector and smoke detector in Shops, Office shall be provided in kitchen/ Pantry and

lobby. The system within the offices, shops and Restaurant shall be conventional type connected by single module per apartment to addressable fire alarm system of the building.

- Smoke/ Heat Detectors in Pantry, Lift machine room, Meter Room, Lobby, inside the offices, Staircases, Buildings all to preliminary NOC of CFO.
- System would act as the means of public address voice evacuation in case of fire conditions.

Other Provisions

- Electrical Panel Room shall be provided with independent fire-fighting provisions for fighting fire in these areas as per Local Electrical service providers.
- The Supply to all Fire Loads viz. Fire Pump, Fire lift & Fire Alarm Panel, Common Lighting, etc. shall be on the emergency circuit, which would be operational in case of a fire, when all other feeders would be switched off. The same would have a backup alternate feed from a D.G. Set supply.

ELECTRICAL SYSTEM

A. SOURCE OF POWER SUPPLY

- The principal source of electrical power would be from the available Electricity service providers.
- The client has expressed their desire to apply for a power franchisee with the local fire authorities and hence the same will be taken into consideration.
- It is assuming the supply voltage for the project shall be 33KV conversion to 415 Volts from Service provider nearest substation of 66 KV/ 33KV transformers developers liaison agent to action.
- Necessary area for Electrical Room has been demarcated by the Architects for the same however depending on number of meters area would be reviewed.

B. DISTRIBUTION

- **LT Power Distribution**

  415 Volts, 3Phase+N, 50Hz Power supply from Service provider shall be brought to Main LT Panels using adequate protections & releases, and the further distribution from the Meter Panel shall be carried out for the Commercial premises, Common Areas, Pump Room, Fire Fighting etc., through a PVC/XLPE Insulated, Aluminum conductors 1100 Volts grade insulation power cables.

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Electrical Meter Rooms is available for housing the Energy Meters provided by the Supply Authorities/ Service provider of Electricity.

C. BASIC ASSUMPTIONS BY THE CONSULTANTS (Attached Assumptions)

- The Electrical Load for this building has been estimated on basis of Load Assessment sheet **Annexure 2** proposed for the different areas. The Client to confirm the Load Assessment sheet for the mentioned area.
- Detailed Load Assessment will be done after receiving approval of Load and Final detailed layouts from Client / Architect. Future Load calculations will be submitted by the Liasoning Developer to the supply authority and a Sanction will be sought for the same.

D. SYSTEM OF WIRING

- The system of wiring shall consist of PVC insulated copper conductor in PVC conduit. Minimum size of copper conductor shall be 2.5 sq. mm for Sub Circuit i.e. from Distribution Board to Switch Board, 1.5 sq. mm for Lighting and 2.5 sq. mm for Power circuit. Color code shall be maintained for the entire wiring installation that is Red, Yellow and Blue for the three phases, Black for the neutral and green for earthing. Besides, ferruling shall be provided for number coding, easy identification and maintenance purposes.
- Every area shall have localized switching for convenience and operational purposes. Distribution board controlled lighting shall be considered for common and external areas. Convenience power outlets will be provided throughout the floor.

E. SWITCHING ARRANGEMENT

- Switching arrangement at various locations will be planned keeping in view the ease with which isolation can be achieved and also the level of fault protection desired at the particular current rating. In distribution scheme the Building will consist of metering panel in which incomer as per Load of the Building (MCCB) & Outgoing will incorporate miniature circuit breaker/ MCCB and earth leakage circuit breaker.

F. EARTHING SYSTEM

- Distribution Earthing shall be carried all along the LT distribution system, or through local earth station and effectively bonding the cables / equipment as the case may be.
- Earthing system to be provide shall be comprise of pipe/plate earth electrode earth bus/grid of GI/Cu or / and bare copper earth wires or Galvanized earth wires as called for, acting as earth continuity conductor.
- Earthing of Compound and Road Lighting poles shall be done by using Cu or GI plates in earth pits near pole and 7/16 size galvanized strained wire for connecting to the pole or as

specified in the Schedule.

Resistance of Earth

Resistance in earth bus and at major electric equipment does not exceed 1.0 ohm.

G. LIGHTNING PROTECTION

- The entire premises shall be protected from lightning by providing Lightning Arrestors as per IS codes or equivalent standard connected to Cu/ GI strip installed along the periphery at the terrace level. Suitable earthing grid shall be formed and connected to earthing station through multiple riser GI strips on building facade.

H. ELECTRICAL LOAD CALCULATIONS

- The total electrical demand for the project shall be dependent on the approval of the Load Assessment Sheet (**Annexure 2** attached).
- The details showing the demands for the different areas of building, Critical and common loads have been attached.

I. DIESEL GENERATORS FOR EMERGENCY POWER GENERATION

- All common lighting loads and pumps for the building shall be provided with DG Set Back-up. Also, Lift of building marked "FIRE LIFT" has been considered to be with DG Set Back-up.
- The Gen-sets shall be LT and Radiator Cooled in an acoustic proof enclosure.
- Also, the Gen-sets shall be provided with AMF.
- The Gen-sets are proposed to be located on the Ground Level nearer to the building. Architect to confirm suitable location.

J. ELECTRICAL METERING

- Each Office and shop shall be provided with an Independent Energy meter from Electrical Supply authority. For common load of the Building one individual meter should be provided for landlord energy metering. These Energy Meters shall be located on building Ground floor Electrical Meter Rooms suitably located by Architect. No metering is proposed for the DG Set power. The cost of the DG Set operation and maintenance shall be shared among all Office/ Shops/ Restaurant owners as common maintenance charges based on area occupied.

K. LOW VOLTAGE SYSTEM

- System Description for Telephone System

All voice points as identified by owners for building main entrance lobby and Common areas shall be connected from the tag block located in secured rooms called ELV room (location to

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be identified by Architect) through telephone cable by the service provider. Provision of 20mm/25 mm dia PVC conduit has been made from utility area to telephone point.

- System Description for IBMS (if applicable and approved by Developer) If developer will maintenance the entire facilities and infrastructure of this mixed used project and hence would like to build in a BMS network for easy of operations and maintenance if BMS is not required then complete system would be manually operated.

  The primary nodes under BMS would be:

  1. The common area energy meters
  2. Water Pumps and level controllers of tanks
  3. Fire Fighting system
  4. HVAC equipment
  5. DG sets operations
  6. L.T. System monitoring
  7. STP plant monitoring



L. AREA ALLOCATIONS FOR ELECTRICAL SYSTEM

- Tentative area allocations for the L.T. Panel & DG Sets have been planned at Ground level service area to be allocated by Architect. The Client's Liaison agent to confirm the same as per the local municipal and supply authority requirements and also preferred location among the same.
- Area Allocations for the Meter Rooms, ELV room, Electrical & ELV Shafts shall be proposed for future development in the Architectural Layouts.

M. ENERGY CONSERVATION/ SAVING METHODS ADAPTED

- Based on final confirmation by Client the HVAC to be VRV type, Solar PV cells, LED Lighting and equipment shall be incorporated in Services Drawings as per BEE & ECBC codes / local rules and regulations. However Safety, Health and Environmental codes shall take precedence.
- Equipment Selected for HVAC shall be designated in tenants guidelines to be as per IS 1391 (Part 1) for VRV Split air conditioners to meet IS 1391 (Part 2). Amenities Guideline of Office Tenants it is also proposed Variable refrigerant flow split air conditioners to maximize the efficiency of Electrical power. The power requirements are capped with loads based on VRF equipment inverter based with scroll compressors.
- Solar PV unit so as to adapt to sustainable resources thus reducing the utility power consumption. Same should be confirm by client / Architect.
- It is planned that lighting design based on use of Commercial area lights, Common area, lift Lobby & external areas would be designed based on LED lights fixture. The effective energy saving due to these fixtures would be approx. 25 % of total Lighting requirements of Common

areas. In addition, the entire staircase except designated fire staircases shall be with timer operations (stairwells planned by Architect are with open-able windows for natural ventilation and lighting)

- Ventilation is provided with sensors which would sense the IAQ and switch the Fans if the IAQ is not as per standards laid down in ASHRAE 62.1.

N. COMMENTS BY CONSULTANT (Refer Assumptions)

- Client to confirm the location of the Sub-station/ Electrical room, D.G. Sets, LT Panel & Meter Rooms (Ground floor) as per local electricity provider, PWD Electricity rules and regulations.
- Client to confirm their consent for the infrastructure available & upgrading at site viz. details of source of power such as HT/LT voltage, supply voltage, available capacity of feeder, location of nearest HT sub-station etc.
- Client to confirm the Equipment & amenities requirement Table, for provision of final loads & DG Set back-up arrangements.
- Client / Architect to provide Interiors lighting for office/ Shops / Restaurant of building. It is also required from Interior design Architect to provide as per Interior decoration as future requirements. All lighting designs shall then be formulated and finalised.
- Client's confirmation required for provisions of Air-conditioning for :
  - ✓ Offices
  - ✓ Commercial shop

HVAC SYSTEM

This report will consider the following HVAC Systems for this development

A. INTRODUCTION

- This basic study is for proposed HVAC/ Ventilation of Commercial Buildings with 182 Offices, 12 Shops and 3 Restaurants. Ventilation system provides the fresh air flow that is required to maintain an acceptable non-odorous atmosphere (by diluting odours) and to dilute the carbon dioxide exhaled.
- The quantity and distribution of introduced outside air takes into account infiltration, exhaust and dilution requirements of the building. Proportion of fresh air introduced into a building may be varied to achieve economical operation. When fresh air can provide useful cooling effect, the quantity should be controlled to match the cooling demand.
- Ventilation system provides air movement that is necessary to create a feeling of freshness and

avoid discomfort. Accordingly, ventilation system proposed to be installed in these building is by deliver of clean, fresh air to the space served specially the lower ground. This will be achieved by providing the required amount of fresh air to remove totally or to dilute odours, fumes etc by centrifugal fans. The NBC Clause 6.5.1 Table 5 Part 8 Section 3 considers recommended rate of circulation which is selected based on applications as average 12 air changes per hour (ACH) which forms the Basis of design for the purpose of Ventilation and Fire Conditions 30 ACH.

B. CONCEPT - VENTILATION SYSTEM

B.1 DESIN

CONDITION

General

Criteria

Environmental design conditions in accordance with ASHRAE 90.1,200, Table D-3

B.2 Respiration Heat (Btu/Hr) per

Person Sensible Heat:	255
Latent Heat:	200

B.3 Safety Factor

An overall safety factor of 5% will be used.

B.4 Ventilation and smoke removal for Basement Floor

For normal operation the system will be designed for 12 air changes per hour these air changes will be provided for normal operations and 30 ACH under Fire Conditions.

B.5 Description of system

Centrifugal fans will be provided to have the required air changes for basement area while Lift shaft will be provided with Tube axial fans for smoke extraction during fire conditions. Toilets & Kitchens/ Pantries will provided with window glass extract fans with required CFM.

The normal operation of the ventilation and exhaust fans will be balanced, Operation will provide for energy conservation purposes, the minimum needed to assure that the required IAQ is met.

B.6 IAQ

The Internal air quality shall be shall be monitored by sensor monitoring the level of air quality which would start the normal operation of fans and additional fans in Fire mode.

This system would effectively reduce the energy consumption during night time when the complex is not in operation.

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C. AIR CONDITIONING LOAD DETAILS

Assumed Air-Conditioning to Shops, Office & Restaurants (Ground Floor to Terrace Floor).

Considered for: -

1. Shops - VRV Split type units.
2. Office - VRV Split type units.
3. Restaurant VRV Split type units or Modular Package units as applicable.

To prevent any disturbance of the Architectural Elevation of the Building due to inappropriate placement of the Outdoor Units of the Split AC Units **Architects** should recommended a space for AC Ledges/ spaces, to avoid hassle of routing of the refrigerant & drain pipes later by the occupants, it is recommended to plan & provide the drain piping as well as sleeves for the refrigerant piping for the same. Also, the locations for the Indoor & Outdoor machines shall be clearly indicated in the drawings by architect, and then electrical provisions made accordingly so that the Owners place their units in the designated areas.

In the guideline it is recommended to propose for BEE 5 star units which would also provide energy saving.

Below table considers the AC requirements based on the built-up area however the actual capacities would be guided by application & occupancy which Owners finalize before the construction of such areas (To be confirmed by Client / Architect).

SUMMARY OF AIR-CONDITION HP OF ODU		
SR.NO	DESCRIPTION OF AREA	HP
1	SHOPS	192
2	OFFICES	3276
3	RESTAURANT 1,2 & 3	225
	TOTAL HP	3693

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A. CODES & STANDARDS

Following STANDARDS and CODES are applicable for the project:

ANSI/ASHRAE STANDARD 40.1-86-2001	Measurements guide
ASHRAE 1991	Terminology of Heating Ventilation Air Conditioning and Refrigeration
ASME STANDARD PTC 19.2-1987 PART II Pressure Measurements	Instruments and apparatus
IEC STANDARD 60038	IEC Standard voltages
IS 4894 – 1991	Centrifugal Fan
SMACNA – 1990	HVAC Systems – Duct Design
SMACNA – 1985	HVAC Air duct leakage test manual
SMACNA – 1989	HVAC duct system inspection guide
SMACNA – 1989	Rectangular industries duct construction
SMACNA – 1984	Energy conservation guidelines
ANSI/ASHRAE-51-1985	Laboratory methods for testing fans for rating
ANSI-UL-555-1990	Fire dampers
NFPA	Fire protection hand book 17th edition
ANSI/ASHRAE/111-1988	Practices for measurement, testing and balancing of building, heating, ventilation, air conditioning and refrigeration system
SMACNA	HVAC systems-testing, adjusting and balancing
ANSI/ASHRAE 62-1989	Ventilation for acceptance indoor air quality and balancing, 1983
ASHRAE 90-1-1989	Energy efficient design of new buildings
ELECTRICAL WIRES AND CABLES, LT AND HT GRADE:	
IS 694 - 1977 Part 1 and part II	PVC insulated cables for voltage up to 1100V with copper and aluminium conductors respectively

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IS 732 - 1989	Code of practice for electrical wiring installation
EARTHING	
IS 3043 - 1996	Code of practice for earthing
MOTORS	
IS 325	Specification for 3 phase induction motors
NOISE AND VENTILATION	
IS 9901 part I and part II – part 9-1991	Measurements of sound insulation in buildings and building elements
IS 11050 – part 1, part II and part III-1991	Rating of sound insulation in buildings and building elements
IS 14280 - 1995	Mechanical vibration – balancing – shaft and fitment key convention
IS 14259 - 1995	Vibration and shock – isolators, procedure of
	specifying characteristics
IS 12065 - 1987	Permissible limits of noise level for rotating electrical machines
IS 1950 - 1991	Code of practice for sound insulation of non- industrial building (Amendment – 1)
SAFETY	
IS 1641 - 1993	Code of practice for fire safety of building (general):General principals of fire grading and classification (1st revision)
SHEET METAL WORK	
IS 277 - 1993	Galvanized steel sheet (5th revision, Amendment 2)
IS 513 - 1963	Cold rolled low carbon steel sheets
IS 655 - 1991	Metal air ducts (revised) (Amendment – 3)
IS 1079 - 1994	Hot rolled carbon steel sheets

IS 1977 - 1992	Structural steel (ordinary quality)
IS 2026 - 1992	Steel for general structural purposes
IS 7613 - 1991	Method of testing panel type air filters for air conditioning purpose
VENTILATION	
IS 3588 - 1991	Electric axial flow fans (1st revision)

ANNEXURES

Refer Annexure 1 - Water Demand

Calculations Refer Annexure 2 - Electrical Load

Calculation Refer Assumptions sheet

Schedule E LIST OF APPROVED MATERIALS, SUPPLIERS & VENDORS

PREAMBLE:

1) All materials shall conform to relevant technical specifications of Volume-III of the Tender Document. The materials shall be further subjected to tests in the recognized laboratories at the discretion of the PM.
2) Materials bearing appropriate IS marking shall be given preference while selecting for the work. In addition the materials can be purchased from the approved vendors as listed below.
3) In case of materials which are not widely available with IS marking in the market but conform to the technical specifications mentioned in the Tender Documents, the same shall be procured from any of the vendors listed below.
4) Cement for work shall have relevant IS marking and every lot shall be subject to tests in the recognised laboratories.

The list given below is only indicative and not restricted to brand mentioned. PM can approve any other brand subject to verification of the adherence to the relevant technical specifications / standards.

S. No.	MATERIALS	MAKES
1.	Cement	ACC, Rajashree, Ambuja, Vasavdatta, Ultratech.Binani
2.	White Cement	Birla, J.K.
3.	Antitermite Treatment	PCI, Godrej Pidilite, PCI, Godrej, Express Pesticide
4.	Cementitious Additives	As per RMC vendors choise & comfort level. The same shall be detailed in the concrete mixdesign for every grade.
5	GGBS	JSW
	PFA	Ashtech / Dirk India / Tata Power /
	Microsilica	Alcofine / Elkem

S. No.	MATERIALS	MAKES
6	RMC	RMC / Ultratech / Godrej / Nuvoco Vistas / ACC
7.	Reinforcement Steel - Fe500 TMT (CRSD)	SAIL / TISCO / VIZAG / ESSAR
8.	Anchor Fasteners	Hilti, Fisher, Halfen, Mungo
9.	Structural Steel	TISCO, SAIL, RINL, Jindal, Vizag
10.	Mechanical Couplers	Unitech / Utracon / Moment /Dextra
11.	Decking Sheet	JSW / Uttam Galva / CRIL
12.	Shear Studs	JSW / Tata / Interarch
13.	PT Steel (Strands)	Tata, Usha Martin
14.	Grouting Compound	Fosroc / Pidilite / Sika / Sunanda
15.	System Formwork	Doka / Peri / RMD
16.	Formwork Release Agent	Fosroc / BASF / Pidilite
17.	Intumescent Paint	Berger / Akzonobel / Newkem
18.	Vermiculite Cementitious Coating	Grace / Berger / Akzonobel / Newkem
19.	Waterproofing Membrane / Coating	Hitchins / Blue
20.	AAC blocks	Siporex India limited, BILT Industries Pvt. Ltd, Ultratech, Ecolite, Aerocon
21.	Chemical Admixtures & Water proofing Compounds	BASF, Fosroc, MC Bauchemic, Pidilite, CICO, Sunanda Chemicals, Fairmate., Sika
22.	Anticorrosive Paint	Asian, Burger
23.	Gypsum Plaster	Saint-Gobain (Gyproc), Buildcon, Permaboard
24.	Polypropylene Fibers	Fibermesh, Duracem, Eurofaster
25.	Non-shrink compound	Fosroc, BASF, CICO, Pidilite, Sunanda Chemicals
26.	Silicon Sealants	Dow Corning, GE Silicon, Wacker Silicon, Pidilite
27.	Chemical bonding agent	Sunanda, BASF, Fosroc
28.	Chemical Waterproofing	Fosroc, BASF, Pidilite, Sundnda chemicals, SIKA, Nanoflex
29.	Aluminium Extruded Sections / sheet	Jindal, Global, Bhoruka, Hindalco

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S. No.	MATERIALS	MAKES
30.	Glass	Saint Gobain, ASAHI INDIA, Modi float
31.	Paints, Polish	Asian, Berger, ICI, Goodlas Nerolac
32.	Textured paint	Ultra tech, Oikos
33.	Putty	Birla, Shalimar
34.	Plywood	Green Ply, Anchor, Century
35.	Laminate	Formica, Decolam, Greenlam
36.	Vitrified Tiles	Euro, RAK, Kajaria, H.R. Johnson, NITCO, Asian, Red stone
37.	Ceramic tiles	Regency, Kajaria, Johson, Hindustan, Bell NITCO, Red stone
38.	Glazed tiles	1st quality Johnson, Somany, Kajaria
39.	Adhesives & Grouts	Kerakoll, superflex, Bal, Laticrete, BASF, FOSROC
40.	Flush door	Annad, Ravela/Everest
41.	Hardware	Dorma, Hafele Geze, Godrej, Doorset
	ELCETRICAL WORK	
42.	Decorative 3 pin , 15 A 230 V Modular Type socket with control switch	MDS Mosac/ North West/ Clipsal/ Crabtree/ABB/Seimens
43.	Decorative 5A-230V Modular type switches & socket.	MDS Mosac/ North West/ Clipsal/ Crabtree/ABB/Seimens
44.	Electronic Type 300 W Fan Regulator	MDS Mosac/ North West/ Clipsal/ Crabtree/ABB/Seimens
45.	Junction Boxes & Accessories	MDS Mosac/ North West/ Clipsal/ Finswitch/ L&T/Crabtree/ Anchor
46.	Holders & Connectors	MDS Mosac/ North West/ Clipsal/ Crabtree
47.	Iron clad switches	G.E.C/Crompton/Sentinal/stainley/Kew
48.	500V grade PVC insulated copper wire	Finolex / RR Kable/ L&T (FRLS Multistand)/HPL
49.	Miniature Circuit Breaker (10 KA)	Legrand / Heqar/ HPL

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S. No.	MATERIALS	MAKES
50.	MCB Distribution Board	Legrand / Heqar /HPL
51.	Earth leakage circuit breaker / RCCB	Legrand / Heqar /HPL
52.	Telephone tag block	I.T.I or approved make
53.	PVC conduit (1.6 mm thick) (ISI mark)	Garware / Precision / Super Plast
54.	Luminous bell indicator with indicating light & Reset push button.	Anchor /Golite
55.	30A, 250 V D.P switch with rewireable fuse	Legrand / Heger
56.	ACB (Air Circuit Breaker)	LT/ schnider/ Siemens /
57.	Switch Fuse Unit	LT/English Electric (Panel Mounting)/ Schnieder
58.	Ammeter / Voltmeter	AEI / Havells / Rishab (L & T) MECO
59.	Selector Switches	KAYCEE / L &T.
60.	Light fitting	Philips / Wipro .
61.	Ceiling Fan.	Crompton / GEC
62.	MCCB(ICS = 100 % ICU)	L & T / M.G. / Hegar/ MDS
63.	Current Transformer	AE / KAPPA / MECA.
64.	KWH Meter (Electronic with digital display)	GEC / Universal / LT / LK / Jaipur/ Havells
65.	Exhaust Fans	Cromption / GEC / Khaitan.
66.	Casing - Capping	Precision/ Asian.
67.	M.S. Conduit	BEC/AKG/ Steel Kraft
68.	HRC Fuses	L & T / Siemens
69.	Capacitor	Cromption / Meher (LT/LK)
70.	L.T. Cables 1100 V. Grade Arm. Cables	Uniflex / Finolex / Polycab / Avocab/ Havells
71	Change over switch	Helcon / Siemens / Universal/ Havells

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S. No.	MATERIALS	MAKES
72.	A.C. Boxes, Industrial socket with SP MCB	Laygrand / Heger / Hevels
73.	Transformer 11 KV/ 433 V	Crompton/ Kirloskar/ Areve/ Voltamp / Hirise, Nagpur/ R.K.Electricals/ Sonali Power Equipemnts
74.	HT Cables XLPE cables	Uniflex/ Torrent/ Nicco/Fort Gloster// Universal / Havells
75.	A.B. Switch/ D.O. fuse	Kiron/ AME
76.	Lighting Arrestor	ELPRO
77.	11 KV LT jointing Kit	Raychem/ M- Seal
78.	Ring Main Unit (HT Switch Fuse Unit)	CG Lucy/ Megawin / Andrew Yule
	PLUMBING WORK	
79.	Sanitary ware and Chromium Plated Fittings	Jaquar / Kohler / Roca /Hindware
80.	Toilet Accessories	Jaquar / Kohler / Viking /Hindware
81.	CPVC Pipes & Fittings	Supreme / Astral / Ashirvad
82.	GI Pipes	Tata / Jindal
83.	UPVC Drainage - Soil, Waste & Vent Piping	Supreme / Astral / Ashirvad
84.	UPVC Rain Water Piping	Supreme / Astral / Ashirvad
85.	R.C.C. Pipes	ISI marked.
86.	R.C.C. chamber covers.	ISI marked
87.	Brass ball valves	Zoloto / GIACOMINI / RB
88.	Check valves	Zoloto / Kirlosar / Advance
89.	Strainers	Zoloto / Sant
90.	Butterfly Valve	Zoloto / Kirlosar
91.	Sluice Valve	Zoloto / Kirlosar

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S. No.	MATERIALS	MAKES
92.	Ball Float Cock	Lehri / Prayag / Normax
93.	Pressure gauge	Wika / H.Guru
94.	Foot Valve With Strainer	Normax / Kirloskar / Zoloto
95.	Water meter	Capstan
96.	Cast Iron pipes and fittings	Neco / Kapilansh
97.	Bore well submersible pumps	Kirloskar / CRI / Shakti
98.	Dewatering pumps for storm water	Grundfos / Wilo
99.	Water Transfer Pumps	Wilo / Lubi
100.	Pressure Switches	Indfoss /Switzer
101.	Fastener	Hilti / Fischer
102.	Pipe Hangers And Threaded Rods	Chilly /GMGR / Hitech
103.	HVAC	Daikin, LG, Toshiba,Mitsubishi only
104.	for Ventilation Fans	Nikotra,Krugger,System air,Ostberg only.
	FIRE FIGHTING WORK	
105.	PUMPS & MOTOR	kirloskar/Lubi/ willo
106.	PIPES	Tata/Jindal/Suryaprakash
107.	WAFER CHECK PLATE	Kartar/Newtech/Normax/Any IS EQUIVALENT
108.	Y STRAINER	Valson/Kartar/Newtech/Arco/Any IS EQUIVALENT
109.	BUTTERFLY VALVE	Newtech/Audco/Kartar/Any IS EQUIVALENT
110.	HYDRANT VALVE	Padma/Arihant/firestone/universal
111.	HOSE REEL DRUM	Padma/Arihant/firestone/universal
112.	BALL VALVE	Audco/zoloto/kartar/Any ISI
113..	RRL HOSE PIPES	Padma/Arihant/firestone/universal

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S. No.	MATERIALS	MAKES
114.	BRANCH PIPE	Padma/Arihant/firestone/universal
115.	HOSE CABINET	Padma/Arihant/firestone/universal
116.	FIRE BRIGADE INLET CONNECTION	Padma/Arihant/firestone/universal
117.	PRESSURE GAUGE	H Guru
118.	PRESSURE SWITCH	Danfoss/Indofus
119.	CABLES	Polycab/RR/Finolex
120.	ELECTRICAL PANEL	L&t (Internal Equipment)
121.	SPRINKLER	HD Fire/Newtech/Any IS EQUIVALENT
122.	FLEXIBLE HOSE	HD Fire/Kartar/Newage//Any IS EQUIVALENT
123	AIR RELEASE VALVE	Newtech/Kartar/Newage/Any Equivalent
124.	EXTINGUISHER	Padma/Arihant/firestone/universal
125.	FIRE ALARM PANEL	Agni/System sensor/Apollo/schrack seconet
126.	SMOKE DETECTOR	
127.	HOOTER	
128.	MANUAL CALL POINT	



SCHEDULE F - DRAWINGS

LIST OF DRAWINGS

Nagpur Municipal Corporation-Orange City (Project: O019005)		DOC.INDEX : AHC_OCSP_IN_05	
TENDER ARCHITECTURAL DRAWING			
Sr. No.	**DESCRIPTION**	**DRAWING NO.**	**REMARKS**
01	LOCATION MAP	OCSP_05_AR_001	TENDER DRAWING
02	GOOGLE MAP AND PROJECT BRIEF	OCSP_05_AR_002	TENDER DRAWING
03	AREA CALCULATION	OCSP_05_AR_004	TENDER DRAWING
04	GENERAL NOTES	OCSP_05_AR_005	TENDER DRAWING
05	SITE LAYOUT	OCSP_05_AR_SL_100	TENDER DRAWING
06	GROUND LEVEL PLAN	OCSP_05_AR_SL_101	TENDER DRAWING
07	BASEMENT LEVEL 1 PLAN	OCSP_05_AR_SL_102	TENDER DRAWING
08	BASEMENT LEVEL 2 PLAN	OCSP_05_AR_SL_103	TENDER DRAWING
09	BASEMENT LEVEL 2 PIT PLAN	OCSP_05_AR_SL_104	TENDER DRAWING
10	FIRST FLOOR PLAN	OCSP_05_AR_100	TENDER DRAWING
11	TYPICAL FLOOR PLAN (2ND TO 6TH FLOOR)	OCSP_05_AR_101	TENDER DRAWING
12	7TH FLOOR PLAN (REFUGE LEVEL)	OCSP_05_AR_102	TENDER DRAWING
13	8TH & 9TH FLOOR PLAN	OCSP_05_AR_103	TENDER DRAWING
14	RESTAURANT AND TERRACE FLOOR PLAN	OCSP_05_AR_104	TENDER DRAWING
15	MUMTY LEVEL PLAN	OCSP_05_AR_105	TENDER DRAWING
16	ELEVATION_A	OCSP_05_AR_200	TENDER DRAWING
17	ELEVATION_C	OCSP_05_AR_201	TENDER DRAWING
18	ELEVATION_B & D	OCSP_05_AR_202	TENDER DRAWING
19	BUILDING SECTION_A-A & C-C	OCSP_05_AR_300	TENDER DRAWING
20	BUILDING SECTION_B-B	OCSP_05_AR_301	TENDER DRAWING
21	BUILDING SECTION_D-D	OCSP_05_AR_302	TENDER DRAWING
22	FACADE DETAILS - 1	OCSP_05_AR_400	TENDER DRAWING
23	FACADE DETAILS - 2	OCSP_05_AR_401	TENDER DRAWING
24	DOOR DETAILS	OCSP_05_AR_402	TENDER DRAWING
25	WINDOW DETAILS	OCSP_05_AR_403	TENDER DRAWING
26	STAIRCASE DETAILS	OCSP_05_AR_404	TENDER DRAWING
27	GENERAL DETAILS SHEET-01	OCSP_05_AR_GD1	TENDER DRAWING

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Volume I:

REQUEST FOR PROPOSAL (RFP) DOCUMENT FOR DEVELOPMENT OF NMC COMMERCIAL COMPLEX PROJECT ON PLOT NO. 2A OF ORANGE CITY STREET PROJECT OF NMC AT NAGPUR ON DESIGN, BUILD, FINANCE, MAINTAIN and SALE MODE.

Project Proponent:

NAGPUR
MUNICIPAL CORPORATION

Issued by:
Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg, Nagpur.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com

AGREEMENT

T- 103

नागपूर महानगरपालिका, नागपूर

प्रकल्प विभाग

अधिकारी / कर्मचारी	कार्यालयीन टिपणी
सुनिल बावणे कनिष्ठ अभियंता	**विषय :–** ऑरेज सिटी स्ट्रीट प्रकल्पामधील भुखंड क. 2–ए करीता विकासका सोबत विकास करारनामा करण्याकरीता समक्ष अधिकारी प्राधिकृत करण्याबाबत. ऑरेज सिटी स्ट्रीट प्रकल्पामधील भुखंड क. 2–ए या भुखंडाच्या विकासाकरीता (DBFOS) तत्वावर म.न.पा. तर्फे E-Tender 2022_NMCN_841806_1 दि. 08.10.2022 ला ऑनलाईन निविदा प्रकाषित करण्यात आली. त्यामध्ये एकुण 3 निविदा प्राप्त झाल्या. या कामाची निविदा दि. 24.11.2022 ला उघडण्यात आली असता मे. प्रफुलवेद इन्फ्रा लि. यांची रू. 51,51,30,000/– ची महत्तम निविदा प्राप्त झाली. अश्या महत्तम प्राप्त झालेल्या निविदाकार मे. प्रफुलवेद इन्फ्रा लि. यांची देकार राशी रू. 51,51,30,000/– ला मा. प्रशासक यांची मंजूरी प्राप्त आहे. (ठराक क. 229 दि. 28.12.2022 अन्वये मान्यता प्रदान करण्यात आली) सदर मान्यते अन्वये मे. प्रफुलवेद इन्फ्रा लि. यांना कामाचे LOA दि. 28.12.2022 ला देण्यात आले. विकासक मे. प्रफुलवेद इन्फ्रा लि. यांनी दि. 08.02.2023 ला Performance Security रू. 3.20 कोटी BG च्या स्वरूपात म.न.पा. कडे जमा केलेली आहे. (BG No. 004541G230000009 दि. 08.02.2023 Indian Bank, Civil Lines Nagpur) BG प्राप्त झाल्यामुळे विकासकासोबत विकास करारनामा करावयाचा आहे. त्या अनुषंगाने नागपूर महानगरपालिका नागपूर आणि विकासक मे. प्रफुलवेद इन्फ्रा लि. यांचे दरम्यान करावयाचा करारनामा या प्रकल्पाचे सल्लागार ऑर्किटेक्ट हाफिज कॉन्ट्रॅक्टर (PMC) यांनी तयार केला असून ऑर्किटेक्ट हाफिज कॉन्ट्रॅक्टर यांचे मार्फत सर्व दस्ताऐवज तपासले असल्याचे दि. 02.03.2023 चे पत्र कार्यालयास प्राप्त असून नस्तीतील उजव्या बाजूस टाचण आहे. विकासकासोबत विकास करारनाम्यावर स्वाक्षरी करण्याकरीता भुखंड क. 1–बी करीता मा. मुख्य अभियंता यांना मा. आयुक्त महोदय यांनी प्राधिकृत केले होते. करीता करारनाम्यावर (Development Agreement) स्वाक्षरी करण्याकरीता सक्षम अधिकाऱ्यास प्राधिकृत करण्याच्या आदेशार्थ सादर.

T-104

श्री. राजीव गौतम उप अभि. (A)	विकासक यांनी करारनामा करण्याकरीता संपूर्ण कागदपत्र विभागाकडे सादर केलेले असुन प्रकल्पाचे सल्लागार यांच्या मार्फत सर्व दस्तऐवज तपासले असुन विकासकासोबत विकास करारनामा स्वाक्षरी करण्याकरीता मुंबई क्र-1 ची ह्या धर्तीवर मा. मुख्य अभियंता यांना मा. आयुक्त यांना प्राधिकृत केलेले होते करीता Development Agreement स्वाक्षरी करण्याकरीता अधिकाऱ्यास प्राधिकृत करण्याच्या आदेशार्थ सादर
कार्यकारी अभियंता (प्रकल्प)	

उक्त नमुद (A) मध्ये शिफारस केल्याप्रमाणे मंजुरीस्तव सादर

6/3/23

श्री तालेवार
अ.अ.

मा. आयुक्त

No.: 438/MC
Date: 08/03/23

CE is authorised to sign on behalf of NMC for 2A plot of OCSP

13/3/23

भारतीय गैर न्यायिक

भारत INDIA

रु. 500 FIVE HUNDRED RUPEES

पाँच सौ रुपये Rs. 500

INDIA NON JUDICIAL

महाराष्ट्र MAHARASHTRA ◐ 2022 ◐

NAGPUR TREASURY
BV 187945
10 FEB 2023
Stamp Head Clerk / Sr. C.

DEVELOPMENT AGREEMENT

This Development Agreement mutually agreed and entered into on this day of March, Two Thousand and Twenty-Three at NMC, Nagpur.

BETWEEN

Nagpur Municipal Corporation, the urban local body for the city of Nagpur, duly established under and functioning as per the MMC Act, 1949 ("**Act**") through its Municipal Commissioner, having its office atNagpur Municipal Corporation, Civil Lines, Mahanagar Palika Marg, Nagpur (hereinafter referred to as "**NMC**", which expression shall, unless excluded by or repugnant to the context or meaning thereof, mean and include its administrators, successors and assigns) OF ONE PART;

AND

Prafulved Infra Pvt Ltd a company incorporated under the Companies Act, 2013 Act 2008 and having its registered office at Fno 501 Shree Krishna Residancy Khare Town ,Dharampeth Nagpur Maharashtra 440010 (hereinafter referred to as "**Developer**") which expression shall where context so admits be deemed to include its successor or administrators and permitted assigns or assigns) of the OTHER PART;

NMC and the Developer are hereinafter referred to individually as the "**Party**" and collectively as the "**Parties**".

PRAFULVED INFRA PVT. LTD. NAGPUR

NAGPUR MUNICIPAL CORPORATION

१) मुद्रांक विक्री नोंदवही अनु.क्रमांक 50202

२) दिनांक: 10-02-2023

३) दस्ताचा प्रकार: Tender

४) दस्त नोंदणी करणार आहेत का? होय/नाही

५) मिळकतीचे थोडक्यात वर्णन -.. —

६) मुद्रांक विकत घेणाऱ्याचे नाव व सही.. प्रफुल्ल

७) हस्ते असलेल्यास त्यांचे नाव व सही..

८) दुसऱ्या पक्षकाराचे नाव.....

९) मुद्रांक शुल्क रक्कम... 100

१०) दिनांक :..10-02-2023

सुबोध एस. ढेंगरे
ज्युडिशियल नॉन ज्युडिशियल
स्टॅम्प वेंडर ला. नं. 7/96,
तहसिल कार्यालय, नागपूर
कोड नं.:46010659

PRAFULVED INFRA PVT. LTD. NAGPUR

WHEREAS;

1. NMC has decided to develop the NMC Commercial Complex Project at Nagpur on the Plot No. 2A of the Orange City Street Project, starting from Wardha Road up to Jaitala, Nagpur.

2. Currently NMC proposes to develop as a component of this Orange City Street Project, a Commercial Complex with requisite parking at the NMC Plot No. 2A site at Nagpur.

3. The plot area is 3363 square meters of which the FSI permitted by the Town Planning Department is 4 as per the UDCPR 2020 and the restriction on height as approved by AAI is 42.05 meters which generally allows a building above existing ground level. The developer has to develop the project within this framework.

4. The prospective developer should plan the Project in synchronization with the conceptual idea of the entire Orange City Street Project and the elevational characters planned by NMC the Project should be maintained by the prospective developer to maintain the similarity for the entire Orange City Street Project.

5. The building elevational characters planned by NMC for the Project should be maintained by the developer to maintain the similarity for the entire OCSP.

   The characteristics of the Elevational Drawings as per the Developers planning should be commensurate with the Elevational Drawings provided in the Volume III of the bidding documents. NMC now desires to undertake the project on Design-Build- Finance-Maintain and Sale (DBFMS) basis under which the Developer shall propose its own Designs, Finance, Construct, Maintain and undertake Marketing & Sale of the various components of the project.

6. NMC has carried out a competitive bidding process for the selection of a suitable developer to implement the Project (defined hereinafter), and issued a Request for Proposal ("**RFP**") dated 06/10/2022 inviting proposals from the interested developers. Upon evaluation of the proposals received, NMC accepted the proposal of the Successful Bidder and issued Letter of Award ("LOA") No. 104/EE/P dated 28/12/2022 to the Successful Bidder and invited it to *interalia* execute this Development Agreement for implementation of theProject in accordance herewith.





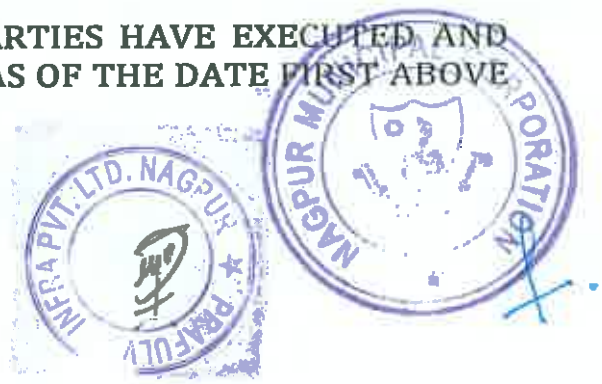
7. NMC and the Developer are executing this Development Agreementto award to the Developer the development and sales rights including right and obligation with regards to designing, planning, financing, construction, operations and maintenance, marketing and sales of the various components of the Commercial Complex and requisite parking of the Project and the Developer has agreed to enter into this Development Agreement for execution of the Project on DBFMS basis subject to and on the terms, conditions and covenants set forth hereinafter.

Now this Agreement witness as follows.

1) In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of Agreement.
2) In consideration of the payments to be made by the Developer to NMC as hereinafter mentioned, the Developer hereby covenants with NMC to all aspects with the provisions of the contract (Volume I to III).
3) The Developer shall have to complete the Project within the stipulated time frame and maintaining the quality parameters at all times from the date of the signing of this Agreement and as stipulated in all the contract documents mentioned below.
4) The following documents shall be deemed to form and be ready construed as part of this agreement viz.

- Volume I -Request for Proposal (RFP)
- Volume II- Development Agreement
- Volume Ill- Design Proposal.
- All corrigenda/addenda/Pre Bid Minutes/CSD etc issued from time to time
- Technical Presentation made by the Developer to the NMC Tender Committee dated 13/12/2022.
- Bid Signatory undertaking
- NMC House Resolution accepting the Bid of the Developer
- Letter of Acceptance
- Bank Guarantee Letter
- Financial Bid Opening document
- Plot Details
- Advocate Resolution for Sale of Property.

IN WITNESS THEREOF THE, PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.



SIGNED SEALED AND DELIVERED

For and on behalf of NMC by:

(Chief Engineer PWD NMC, Nagpur)

Authorized by the Resolution passed by the Governing Body of the Nagpur Municipal Corporation on 18th day of February 2023.

For and on behalf of Developer by:
(Signature of Authorized Signatory)

(Praful N Deshmukh)
(Director)

THE COMMON SEAL OF DEVELOPER has been affixed pursuant to the resolution passed bythe Board of Directors of the Developer at its meeting held on the 27 th day February of 2023 hereunto affixed in the presence of, Director, who has signed these presents in token thereof and company Secretary / Authorized Officer who has countersigned the same in token thereof

In the presence of following:

Witnesses:

1.

2.

ADVOCATE OPINION AND OPINION FOR SALE OF PROPERTY

Satyam Apartments;
Ravi Nagar Square;
Nagpur - 440033
Cell 9423412266

J. B. KASAT
ADVOCATE

29/7/2017

By Hand / Email

To,

Municipal Commissioner,
Nagpur Municipal Corporation,
Nagpur

Subject: Legal Opinion in matter of NMC rights for Sale of Property: Communication to the Law Officer dated 14/7/2017 and 25/7/2017

Sir,

I have perused the said communications as only the said communications are forwarded to me seeking opinion.

It appears that the NMC is intending to dispose off property by sale.

That, the disposal of property by the corporation is governed by Section 79 of the MMC Act, 1949

Section 79(c) empowers the commissioner, with the sanction of the Corporation, to lease, sell or let out on hire or otherwise convey any property, movable or immovable belonging to the corporation.

As per Section 79(d) the consideration for the same shall not be less than the current market value.

Furthermore the Provisio (a) to section 79 ***no property vesting in the corporation for the purpose of any specific trust shall be leased, sold or conveyed such that the purpose for which it is held is prejudicially affected.***

As per Provisio (b) ***no property transferred to the corporation by the government, can be leased or sold or otherwise conveyed in any manner contrary to the terms of the transfer except with the prior sanction of the Appropriate Government.***

Therefore the provision of Section 79 of the MMC Act, provides for the conditions and restrictions which are to be adhered to before the municipal property can be disposed. I am therefore of the opinion that in compliance of the provisions of Section 79 of the MMC Act, the municipal property can be disposed off.

I have tried my best to search the apex court judgment precluding the Municipal Corporation from disposing off its property by sale, however I have not come across any such judgment however, there are cronouncements by the apex court that disposal of property by

VED INFRA PVT. LTD. NAGPUR

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10 NIT Layout,
Satyam Apartments;
Ravi Nagar Square;
Nagpur - 440033
Cell 9423412266

J. B. KASAT
ADVOCATE

29/7/2017

the Corporation should be fair and transparent like public auction etc.

Kindly therefore examine the disposal of municipal property in the light of Section 79 of the MMC Act on case to case basis and do the needful.

I remain

Yours Truly,

J. B. Kasat

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AKHIV PATRIKA & TABA PAVTI

शा. नि. म. वि. क्र. ८१६, दि. १६.१.२६

न. भू. मा. २० म.
C. T. S. 20 m.

आखीव पत्रिका

मौजा :- सोमलवाडा

भूमापन क्रमांक	क्षेत्र	भूधारणा पद्धती	शासनाकडे भरण्याच्या महसूलाच्या अगर भाड्याच्या रकमेचा तपशील व ती पुनरीक्षणास केव्हा पात्र आहे.
६१५	६१,६००.०० चौ.मि.	फ	

सुविधाधिकार

धारक सन १९७२ --

हक्कार्व मळ (उपलब्ध झाल्याप्रमाणे) नागपूर महानगर पालिका, नागपूर
पो.क्र. ३८८३७

पट्टेदार --

इतर भार --

इतर शेरे --

न.भु.अ. क्र. ३
नागपूर

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धारक (धा) पट्टेदार (प) इतर भार (भा)	साक्षांकन
			सत्यप्रतिलिपी	

०७०३३२

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[illegible] वीस रु [illegible] १४०५/१७

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शा. नि. म. वि. क्र. ८६१६ दि. १६ ९ ९६

न. भू. मा. २० मी.
C. T. S. 20 m

आखीव पत्रिका

मौजा :- श्यामला

भूमापन क्रमांक	क्षेत्र	भूधारणा पद्धती	शासनाकडे भरण्याच्या महसूलाच्या अगर भाड्याच्या रकमेचा तपशील व ती पुनरीक्षणास केव्हा पात्र आहे.
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सुविधाधिकार

धारक सन १९०१-२०१७
हक्काचे मळ (उपलब्ध झाल्याप्रमाणे) नागपूर महानगर पालिका, नागपूर
क्र. १४२४७

पट्टेदार --

इतर भार --

इतर शेरे --

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धाकर (धा) पट्टेदार (प) इतर भार (भा)	साक्षांकन
				०६०३३२८
	सत्यप्रतिलिपी			

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शा. नि. म. वि. क्र. [illegible] दि. [illegible]

न. भू. मा. [illegible] म.
C. T. S. 20 m.

आखीव पत्रिका

मौजा :- भामटी

भूमापन क्रमांक	क्षेत्र	भूधारणा पद्धती	शासनाकडे भरण्याच्या महसूलाच्या अगर भाड्याच्या रकमेचा तपशील व ती पुनरीक्षणास केव्हा पात्र आहे.
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सुविधाधिकार

धारक सन ~~[illegible]~~ २०१७

हक्काचे मळ (उपलब्ध झाल्याप्रमाणे) नागपूर महानगर पालिका, नागपूर
[illegible]

पट्टेदार --

इतर भार --

इतर शेरे --

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धाकर (धा) पट्टेदार (प) इतर भार (भा)	साक्षांकन
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शा. नि. म. वि. क्र. [illegible]

न. भू. मा. २० म.
C. T. S. 20 m.

आखीव पत्रिका

मौजा :- जयनाथा

भूमापन क्रमांक	क्षेत्र	भूधारणा पद्धती	शासनाकडे भरण्याच्या महसूलाच्या अगर भाड्याच्या रकमेचा तपशील व ती पुनरीक्षणास केव्हा पात्र आहे.
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सुविधाधिकार

धारक सन १९७८-२०१७
हक्काचे मळ (उपलब्ध झाल्याप्रमाणे) नागपूर महानगर पालिका, नागपूर
क्र. ४४६७

पट्टेदार —

इतर भार —

न. भू. अ. क्र. ३
नागपूर

इतर शेरे —

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धाकर (धा) पट्टेदार (प) इतर भार (भा)	साक्षांकन
		०६०३३२८		

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दिनांक २८/१९७ अन्वये स्वरूप क्र. २०/
([illegible])
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[illegible]
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PRAFULVED INFRA PVT. LTD. NAGPUR

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213

ताबा पावती

विषय :- नार्थ अबांझरी येथील ऑर्डीनन्स फॅक्टरीच्या मालकीच्या रेल्वे साईडींग 30.49 हे. जमिनीचा महानगर पालीका नागपूर यांना ताबा देणेबाबत.

संदर्भ :-
1) शासन ज्ञापन महसुल व वनविभाग मुंबई क्र. 3406/यु.वी.आर. 2194/प्रक पु.676/ज-5 दि. 11.9.06
2) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 1117/06 दि. 26.9.06
3) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 1306/06 दि. 2.12.06
4) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 1406/06 दि. 28.12.06
5) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 14/07 दि. 9.01.07

ऑर्डीनन्स फॅक्टरीच्या मालकीचे सोबतच्या जोडलेल्या प्रपत्रात नमुद असलेल्या मौजा जैताळा, टाकली, भामटी, खामला , सोमलवाडा, येथील रेल्वे साईडींगच्या एकुण जागेपैकी 30.49 हे. आर जागेचा ताबा.

ताबा देणार
1) तहसिलदार नागपूर(श)
2) मंडळ अधिकारी नागपूर
3) तलाठी

ताबा घेणार
1)स्थावर अधिकारी
महानगर पालीका नागपूर

उक्त जागेचा ताबा घेतल्या नंतर स्थावर अधिकारी महानगर पालीका नागपूर यांना संबंधित नगर भुमापन अधिकारी नागपूर क्र.3 कडुन मोजणी करुन घ्यावी. व नामांतरण करुन घ्यावे.

ठिकाण :- नागपूर
दिनांक:- 12/09/2006.

ताबा देणार
1) तहसिलदार नागपूर (श)
2) मंडळ निरिक्षक नागपूर
3) तलाठी (जैताळा,भामटी,सोमलवाडा)
4) तलाठी (टाकळी)
5) तलाठी (खामला)

ताबा घेणार
1) स्थावर अधिकारी
महानगर पालीका नागपूर
स्थावराधिकारी
महानगर पालिका

तलाठी
त. सा. क्र. ...
तहसिल क. ऑर्डीनन्स नागपूर (शहर)

PRAFULVED INFRA PVT. LTD. NAGPUR

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LEGAL VETTING

T-

T-73

नागपूरमहानगरपालिका, नागपूर
प्रकल्पविभाग

		b. The Developer shall hand over the Maintenance Manual and the As-Built Drawings at the end of the 3rd year of the Development and Sales period and in case of default in the same, the Performance Security shall be appropriated by NMC. The Draft Development Agreement is enclosed herewith for your perusal and necessary approval. Hence submitted for approval and uploading on the e-procurement website www.mahatenders.gov.in.

Page No T-11 to T-35 Request for Proposal and T-37 to T-73 Draft Development Agreement is enclosed herewith for Perusal and necessary approval.

Hence submitted for approval and uploading on the e-procurement website www.Mahatenders.gov.in

उप अभि Above RFP & DA approval pl

कार्य अभियंता (प्रकल्प) Submitted for approval

Discussed with EE (Project). As the RFP & DA is as per previous floated tender which may please be approved. However DA to be wetted legally before uploading on website.

Shri Talewar
SE

CE

Lalwani
03/10/21

T – 44

नागपूर महानगरपालिका, नागपूर

प्रकल्प विभाग

कार्यालयीन टिप्पणी

अधिकारी / कर्मचारी	
Hon. commissioner	RFP & concession agreement The document shall be shown to Sr. counsel Sh. Kaptan sir and get his opinion and legal vetting; then you put up before me for further discussions & direction.

PRAFULVED INFRA PVT. LTD.

नागपूर महानगरपालिका, नागपूर
प्रकल्प विभाग

T-

अधिकारी / कर्मचारी	कार्यालयीन टिपणी
	अरेल सिटी स्ट्रीट प्रकल्पातील अभिन्यासामधील भुखंड क्र 2A विकसित करण्याकरीता Design Build Finance operate & Sale [DBFOS] या तत्वावर विकास करण्याकरीता प्रकल्प सल्लागार Architect Hafeez Contractor (AHC) यांनी भुखंड क्र 2A-चा नियोजन केलेले असुन त्या करीता त्यांनी 1) Request for Proposal (RFP) 2) Financial Feasibility Report (FFR) 3) Development Agreement (DA) तयार केलेले आहे, सदर्हु दस्तऐवज मा. आयुक्त महोदय यांची मान्यता घेण्यास्तव पाठविण्यात आली असता मा. आयुक्त महोदय यांनी दस्तऐवज Legal vetting Sr. Counsel Shri Kaptan Sir यांच्या कडुन करून पाठविण्याचे निर्देशीत केलेले आहे करीता वरील RFP, FFR व DA-चे दस्तऐवज Legal vetting करण्याकरीता सदर्हु नस्ती विधी विभागाकडे पाठविण्याचे आदेशार्थ सादर
उप. अभियंता	Legal vetting करीता विधी विभागाकडे पाठविण्याचे मान्यतेस सादर
कार्य. अभियंता (प्रकल्प)	Pl. send to Kaptan Sir for legal vetting
श्री उपाले विधी कार्यालय	Forwarded for legal opinion/vetting please.

Adv. C.S. Kaptan Sir
Sr. Counsel.

PRIMEVALVED INFRA PVT. LTD. NAGPUR

T-

नागपूर महानगरपालिका, नागपूर
प्रकल्प विभाग
कार्यालयीन टिपणी

अधिकारी/ कर्मचारी	
	I have seen the draft agreement. I also had discussion with Mr. Richards. I suggested two changes in the agreement One in clause 14.5.3. (d) at page 101. Second clause 18.1 (c) which proposes Arbitral Panel of Nominees from NMC, the Developer and the financial institution. In my opinion in case of dispute between NMC and the Developer a nominee of the financial institution has no role. He the Arbitral Panel should not include its representative. Instead the nominees of NMC and Developer could appoint an umpire. With these modification the agreement could be executed

CSKapoor

PRAFULVED INFRA PVT. LTD. NAGPUR

PAPER ADVERTISEMENT

12x15

19

Ad.No. 284/PR

NAGPUR MUNICIPAL CORPORATION, NAGPUR
NOTICE INVITING TENDER

Name of Work :- "Development of Commercial Complex under O.C.S.P Nagpur on Plot No 2A (DBFMS) model."

NMC has decided to develop the Orange City Street Project (Plot No 2A) at Nagpur on the stretch starting from Wardha Road up to Jaitala, Nagpur.

NMC desires to implement this project on Public Private Partnership (PPP) mode through the Design Build Finance Maintain and Sale (DBFMS) model wherein the prospective developer shall undertake the Designing, Financing, Construction, Maintenance and sales of the entire project.

NMC is therefore inviting proposals from established Infrastructure Development to be appointed as a Developer with Sales Rights for this prestigious project.

BIDDING PROCESS TIMELINES

The detailed RFP Document and other details are available on-line on the government website **www.mahatenders.gov.in**

Sr. No.	Event Description	Date
1)	RFP Sale	06.10.2022 to 21.11.2022 till 5.00 pm
2)	Last date of submission of written queries by prospective bidders	20.10.2022 upto 4.00 pm
3)	Pre-Bid Meeting	20.10.2022 at 4.00 pm
4)	NMC's response to written queries raised & issuance of corrigendum/ addenda, if any	27.10.2022
5)	RFP Application submission date	21.11.2022 till 5.00 pm
6)	RFP application opening date	24.11.2022
7)	Presentation by Technically Qualified Bidders	01.12.2022
8)	Financial proposal opening	Shall be intimated to the technical shortlisted bidders.
9)	Earnest Money Deposit / Bid Security	Rs. 20,00,000/-
10)	Tender Fees (Non-Refundable)	Rs. 20,000/-

NMC reserves the right to alter, modify any clause of the Bidding Documents including the Development Agreement and also to annul the bidding process without assigning any reason whatsoever.

Advt No : 284/PR
Dt : 03/10/2022

Executive Engineer (Project)
Nagpur Municipal Corporation, Nagpur.

PRAFULVED INFRA PVT. LTD. NAGPUR

Adv no 284/PR 20 दि. 4/10/2022

NAGPUR MUNICIPAL CORPORATION, NAGPUR
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Executive Engineer (Project)
Nagpur Municipal Corporation, Nagpur.

Adv no 284/PR नवराष्ट्र

NAGPUR MUNICIPAL CORPORATION, NAGPUR
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Advt No : 284/PR
Dt : 03/10/2022

Executive Engineer (Project)
Nagpur Municipal Corporation, Nagpur.

PRAFULVED INFRA PVT. LTD. NAGPUR

NAGPUR MUNICIPAL CORPORATION, NAGPUR.

NOTICE INVITING TENDER

Name of Work :- "Development of Commercial Complex under O.C.S.P Nagpur, on Plot No 2A (DBFMS) model."

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Bidding Process Time lines: -

The detailed RFP Document and other details are available on-line on the government website www.mahatenders.gov.in		
Sr No.	**Event Description**	**Date**
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5	RFP Application submission of last date	21.11.2022 till 5.00 pm
6	RFP application opening date	24.11.2022
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Executive Engineer (Project)
Nagpur Municipal Corporation, Nagpur

ONLINE PUBLICATION OF THE TENDOR

eProcurement System Government of Maharashtra

Maharashtra Tenders

Tender Details

Date : 08/Oct/2022 03:28 PM

Print

Basic Details

Organisation Chain	Nagpur Municipal Corporation Nagpur ;Water Works		
Tender Reference Number	02/EE(P)/2022		
Tender ID	2022_NMCN_841606_1		
Tender Type	Open Tender	Form of contract	Percentage
Tender Category	Works	No. of Covers	2
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No
Payment Mode	Online	Is Multi Currency Allowed For BOQ	No
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No

Payment Instruments

Online Bankers	S.No	Bank Name
	1	SBI Bank

Cover Details, No. Of Covers - 2

Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.rar	Technical Documents
2	Finance	.xls	BOQ

Tender Fee Details, [Total Fee in ₹ * - 20,000]

Tender Fee in ₹	20,000		
Fee Payable To	Nil	Fee Payable At	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	20,00,000	EMD through BG/ST or EMD Exemption Allowed	No
EMD Fee Type	fixed	EMD Percentage	NA
EMD Payable To	Nil	EMD Payable At	Nil

Click to view modification history

Work / Item(s)

Title	Development of Commercial Complex under D.C.S.P Nagpur, on Plot No.2A (DBFMS) mode				
Work Description	Development of Commercial Complex under D.C.S.P Nagpur, on Plot No.2A (DBFMS) mode				
Pre Qualification Details	Please refer Tender documents.				
Independent External Monitor/Remarks	NA				
Show Tender Value in Public Domain	Yes				
Tender Value in ₹	42,00,00,000	Product Category	Civil Works	Sub category	NA
Contract Type	Tender	Bid Validity(Days)	180	Period Of Work (Days)	2555
Location	Nagpur	Pincode	440015	Pre Bid Meeting Place	Office of the Chief Engineer, NMC, Nagpur
Pre Bid Meeting Address	Office of the Chief Engineer, NMC, Civil Lines, Nagpur	Pre Bid Meeting Date	20-Oct-2022 04:00 PM	Bid Opening Place	Office of the Executive Engineer (Project), NMC
	No		No		

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Should Allow NDA Tender		Allow Preferential Bidder	

Critical Dates

Publish Date	08-Oct-2022 04:00 PM	Bid Opening Date	24-Nov-2022 05:00 PM
Document Download / Sale Start Date	08-Oct-2022 04:00 PM	Document Download / Sale End Date	21-Nov-2022 05:00 PM
Clarification Start Date	NA	Clarification End Date	NA
Bid Submission Start Date	08-Oct-2022 04:00 PM	Bid Submission End Date	21-Nov-2022 05:00 PM

Tender Documents

NIT Document

S.No	Document Name	Description	Document Size (in KB)
1	Tendernotice_1.pdf	NIT	226.83

Work Item Documents

S.No	Document Type	Document Name	Description	Document Size (in KB)
1	Tender Documents	RFPP02.pdf	Tender Documents	735.97
2	BOQ	BOQ_1457318.xls	BOQ	315.50

Bid Openers List

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1	borkarnv140@gmail.com	Naresh Borkar	NARESH VASANTRAO BORKAR
2	mtalewar.nag@gmail.com	Manoj Talewar	MANOJ HARIBHAU TALEWAR
3	financedepttnmc@gmail.com	Nitin Sakore	NITIN UPASRAO SAKORE

Tender Properties

Auto Tendering Process allowed	No	Show Technical bid status	Yes
Show Finance bid status	Yes	Show Bids Details	Yes
BoQ Comparative Chart model	Normal	BoQ Compartive chart decimal places	2
BoQ Comparative Chart Rank Type	L	Form Based BoQ	No

Tender Inviting Authority

Name	Executive Engineer (Project), NMC, Nagpur
Address	Office of the Executive Engineer (Project), NMC, Nagpur

Tender Creator Details

Created By	Naresh Borkar
Designation	Executive Engineer
Created Date	08-Oct-2022 03:16 PM

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PREBID QUERIES & REPLIES & CORRIGENDUM

Pre-Bid Queries & NMC Responses

With regard to the Request for Proposal for:

"Design, Build, Finance, Operate and Sale of the Commercial Complex at the Plot No. 2A of the Orange City Street Project

Date of Pre-Bid Meeting: 20th October 2022 at 4.00 p.m.

PRAFULVED INFRA PVT. LTD.

S.N.	Clause/ Section/Article	Tender Description	Bidder Request for Clarification/Relaxation	NMC Response to Queries
Sandesh Infrastructures Pvt. Ltd.				
1.	RFP: Clause 4.1. a. Page 13	The Developer shall construct the Commercial Complex on Plot No 2A of OCSP on a total plot area of 3363 square meters within a period of 30 (Thirty) months.	Please increase the Construction period to 48 months.	Kindly refer Corrigendum No.1.
2.	RFP: Clause 6.4.1. a). i. Page 49	At-least One similar project having constructed area of One Lac Eighty Five Thousand Nine Hundred and Sixty square feet (total built up area of RCC Structure/ Combination of RCC-Steel Structure at a single location (single premises) along-with all with all support facilities and infrastructure facilities) in the last 07 financial years in India.	As per the technical capacity it is mentioned that, having constructed area of 1,85,000 square feet (total built up area of RCC Structure/ Combination of RCC-Steel Structure at a single location (single premises) along-with all with all support facilities and infrastructure facilities) in the last 07 financial years in India. There is ambiguity whether we should consider quantities for constructed area or built up area. Please clarify.	Kindly refer Corrigendum No.2.

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3.	RFP: Clause 4.2.l. Page 16	To obtain the Environment Clearance, if applicable under law from the competent authority. In case of any delay in obtaining the Environment Clearance by the Developer, the construction period of 30 months shall not be extended under any circumstances. The prospective developer has to manage and balance between the construction period and period required for Environment Clearance within this 30 months only.	As this NMC's project, Environment Clearance part should be in the scope of NMC.	RFP Condition shall prevail.
4	RFP: Clause 4.2.m. Page 16.	In case of revision of the drawings, obtain the approval of the Town Planning Department, NMC and obtain the revised Fire NOC and pay the necessary revision charges as applicable.	As plans are not sanctioned, there is no question of revision.	Developer shall submit its plans as per its approved Detailed Project Report. The Developer can revise its planning within the permitted parameters of development as specified in the Development Agreement and no revision charges shall be applicable for such revisions. However if such revisions result in Additional

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				Development and generate additional revenue to the Developer over and above as envisaged under the Development Agreement, then such revisions shall be referred to the Strategic Committee as mentioned in Clause 4.5 of the Development Agreement. The Developer shall have to pay for such extra development if revenue sharing model is agreed by the Strategic Committee.
5.	RFP: Clause 4.2.p. Page 17.	For any relaxations sought by the Developer with regard to the preparation and approval of the Construction Drawings as per the prevailing UDCPR 2020 and Town Planning Department of NMC, the decision of the Commissioner shall be final and binding. All relevant charges for obtaining such relaxations shall be borne by the Developer and NMC shall incur no liability in this regard. If any relaxation from the norms of the UDCPR 2020 / Town Planning Department is	The cost of relaxation should be deducted from the extra revenue generated while distributing the generated revenue among NMC and the Developer.	The Developer may avail relaxations as long as the FSI is within the permitted FSI as mentioned in the Development Agreement & RFP, in such case no relaxation charges shall have to be borne by the Developer. However if such relaxations result in Additional Development as spelt out in the Development Agreement & RFP and result in

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		allowed and this enhances the revenue earning of the Developer, such benefits of the enhanced revenue shall be shared equally with NMC, failing which such relaxations would be cancelled.		generation of additional revenue to the Developer, then the relaxation charges for such additional revenue generated shall have to be paid by the Developer.
6.	RFP: Clause 4.2.t. Page 17.	Plan the proposed facility as a "Green Building" with smart features and the bidder shall get it certified from relevant Indian authorities' viz. IGBC/ GRIHA/ASSOCHAM etc and maintain the same during the Development and Sales period.	Please remove condition of Green Building, we will try to build as per Green Building norms but the compulsion of certification should be waived off.	RFP Condition shall prevail.
7.	RFP: Clause 4.2.w.iii Page 19.	The right to lease and earn Advertisement Revenue from the Project shall be with the Developer from the issuance of the Occupancy/Part Occupancy Certificate till completion of the Development and Sales period and after this it shall be transferred to the society formed by the buyers.	Please allow us to take decision regarding the advertisement according to our planning; the Clause iii should be waived off.	The Developer can plan the advertisements as per its own planning but within the applicable laws of Maharashtra state and/or NMC in this regard. The Developer can earn Advertisement Revenue from the project till completion of the Development and Sales period. On transfer of the project to the society formed by the buyers at the end of

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				the Development and Sales period, all the rights and privileges including the advertisement rights shall be transferred to the society formed by the buyers.
8.	RFP: Clause 5.2.1. Bid Security Page 23.	Bidders shall deposit, along with their Bid, a Bid Security of Rs. 20,00,000/-(Rupees Twenty Lacs only)	Please reduce Bid Security Charges to Rs 10, 00,000 as in case of Plot No 1B. The scope of work was similar and Bid Security was Rs 10,00,000.	Kindly refer Corrigendum No. 3.
9.	RFP: Clause 5.7.4. i. Page 37.	Disburse the Upfront Premium to NMC in following manner: i. Rs 2.00 crores within 30 days of Effective Date. ii. Balance Rs 3.00 crores by way of 5 equal post-dated cheques within 09 months from Effective Date.	Please make changes in payment terms for Upfront Premium. Make it in the following manner: i. Rs 2.00 crores within 30 days of Effective Date. ii. Balance Rs 3.00 crores within 09 months.	Kindly refer Corrigendum No. 4.
10.	RFP: Clause 4.1 i. Page 14.	The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement.	Remove this condition of providing details of the prospective buyers such as financial strength, purpose of purchase etc with NMC in place of that clause of only intimation of sale.	Kindly refer Corrigendum No. 5.
11.	RFP: Clause 4.2 a. Page 15.	The prospective Developer should plan the Project in	The restriction should be only for Arcade Design and not for use	Kindly refer Corrigendum No. 6.

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		synchronization with the conceptual idea of the entire Orange City Street Project. The front Arcade with commercial shops on the Ground and First floor and building elevation as per the Orange City Street theme should be strictly adhered to at all times. Any change is use proposed by the Developer after Ground and First floor should be permissible as per the UDCPR and as defined in the Development Agreement.	of the floor.	
12.	RFP: Clause 4.2 c. Page 15.	Appoint its architect for the project.	Please clarify appointment of architect i.e. his scope of work.	NMC has appointed its own PMC for this project. Similarly on being selected, the Developer can appoint its own architect for the planning of the project

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13.	RFP: Clause 4.1 o. Page 15.	In case the Developer intends to lease out the facility/any portion of it to any third party, then the Developer shall need to purchase and get such portion of the facility registered in its own name by appropriate lawful mechanism before leasing out the given space. Deed of Apartment and/or any such legal document can be executed by the Developer in its own favour after payment of requisite NMC Revenue Share from such sales as if it has been sold at commercial rates.	Before giving possession to lessee, register documents are required. Please allow us to do so.	If the Developer intends to lease out any facility/ portion of the project to any third party, it must express such intention to NMC by way of an intimation letter. In such a case the Developer may enter into a provisional lease agreement with the prospective lessee, However such provisional lease agreement shall stand null and void if the Developer does not get such facility/portion of the project transferred in its name as per the provisions of this Clause, within 30 days of issuance of the Occupancy Certificate and does not make full payment of proportionate NMC Revenue Share for such facility /portion of the Project to NMC.

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Corrigendum No 1:

RFP: Clause 4.1. a. Page 13

Existing Clause:

The Developer shall construct the Commercial Complex on Plot No 2A of OCSP on a total plot area of 3363 square meters within a period of 30 (Thirty) months.

Modified Clause:

The Developer shall construct the Commercial Complex on Plot No 2A of OCSP on a total plot area of 3363 square meters within a period of 36 (Thirty Six) months.

All construction period related clauses of the RFP and DevelopmentAgreement to be read in line with the above modified clause.

Corrigendum No 2:

RFP: Clause 6.4.1. a). i. Page 49

Existing Clause:

At-least One similar project having constructed area of One Lac Eighty Five Thousand Nine Hundred and Sixty square feet (total built up area of RCC Structure/ Combination of RCC-Steel Structure at a single location (single premises) along-with all with all support facilities and infrastructure facilities) in the last 07 financial years in India.

Modified Clause:

At-least One similar project having constructed area of One Lac Eighty Five Thousand Nine Hundred and Sixty square feet (total constructed area of RCC Structure/ Combination of RCC-Steel Structure at a single location (single premises) along-with all with all support facilities and infrastructure facilities) in the last 07 financial years in India.

All technical qualifying related clauses of the RFP to be read in line with the above modified clause.

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Corrigendum No 3:

RFP: Clause 5.2.1. Bid Security Page 23.

Existing Clause:

Bidders shall deposit, along with their Bid, a Bid Security of Rs. 20,00,000/-(Rupees Twenty Lacs only).

Modified Clause:

Bidders shall deposit, along with their Bid, a Bid Security of Rs. 10,00,000/-(Rupees Ten Lacs only).

All bid security related clauses of the RFP and Development Agreement to beread in line with the above modified clause.

Corrigendum No 4:

RFP: Clause 5.7.4. i. Page 37.

Existing Clause:

Disburse the Upfront Premium to NMC in following manner:

i. Rs 2.00 crores within 30 days of Effective Date.

ii. Balance Rs 3.00 crores by way of 5 equal post-dated cheques within 09 months from Effective Date.

Modified Clause:

Disburse the Upfront Premium to NMC in following manner:

i. Rs 2.00 crores within 30 days of Effective Date.

ii. Balance Rs 3.00 crores by way of 3 equal instalments of Rs 1.00 crore each to be paid every 3 months i.e. within 09 months from Effective Date.

All Upfront Premium related clauses of the RFP and DevelopmentAgreement to be read in line with the above modified clause.

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Corrigendum No 5:

RFP: Clause 4.1 i. Page 14.

Existing Clause:

The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement.

Modified Clause:

Intimation of every sale shall be made to NMC by the Developer immediately on finalisation of terms with buyer and before receipt of first down payment from the buyer.

Corrigendum No 6:

RFP: Clause 4.2 a. Page15.

Existing Clause:

The prospective Developer should plan the Project in synchronization with the conceptual idea of the entire Orange City Street Project. The front Arcade with commercial shops on the Ground and First floor and building elevation as per the Orange City Street theme should be strictly adhered to at all times. Any change is use proposed by the Developer after Ground and First floor should be permissible as per the UDCPR and as defined in the Development Agreement.

Modified Clause:

The prospective Developer should plan the Project in synchronization with the conceptual idea of the entire Orange City Street Project. The front Arcade and building elevation as per the Orange City Street theme should be strictly adhered to at all times. Any change is use proposed by the Developer should be permissible as per the UDCPR and as defined in the Development Agreement.

PRAFULVED INFRA PVT. LTD.

PRESENTATION



Technical Concept Presentation for Plot No 2A

Prafulved Infra Pvt Ltd

Technical Concept Presentation for Plot No 2A

About Us

Prafulved Infra Pvt. Ltd





Praful Deshmukh & Co. began as a buildership & general works contractor in 2006. Over the years, the group has undertaken several challenging projects and accumulated skills, know-how and experience in design-and-build solutions, project management services and related engineering work.

Our Vision

To deliver beyond expectations every single time by cultivating consistency and practicing attention to detail.

Mission

To procure projects at competitive pricing, provide safe working conditions and deliver quality results within a given time frame.

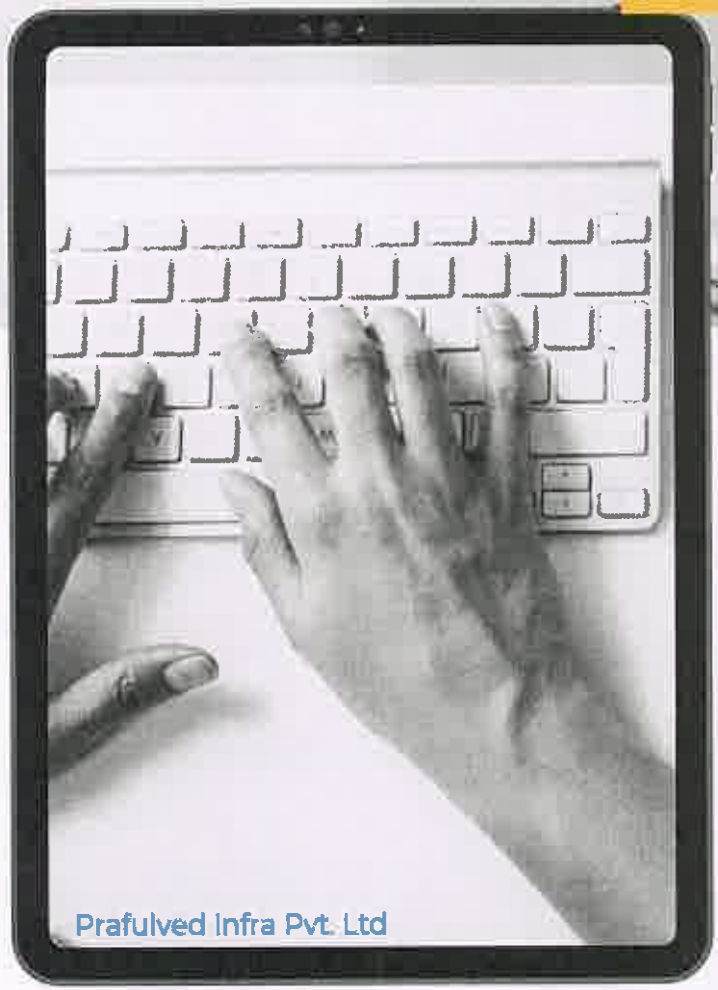
PRAFULVED INFRA PVT. LTD. NAGPUR



Our Management Team

The business is driven by our two working directors who have collectively accumulated more than 20 years of experience in the building industry. They are deeply involved in all aspects of business development, procurement, project management and administration of the company.

The management team proactively gathers feedback, identifies changes in business environment, reviews work processes and communicates key learning points and company policy to all staff at regular meetings



PRAFULVED INFRA PVT. LTD. NAGPUR



/04

Our People

We value our team and its pivotal role in successful delivery of our services. Our comprehensive training program ensures our people are equipped with technical, managerial and interpersonal skills.

We firmly believe that a team that receives the right training, accredited certification and practical knowledge is the only one that can remain confident and relevant in an ever-changing market place.

Completed Projects



- Worked for SRA (NMC Nagpur) Built more than 1000 homes
- Constructed 3 Bridges under PWD. Patented with the name ARC Technology at Satara District. Contract Value: 20 Cr.
- Tallest commercial building in Nagpur ,G+18 with 2 basement
- Over 20 Residential & Commercial projects successfully completed

PRAFULVED INFRA PVT. LTD. NAGPUR

Completed Projects







Technical Concept Presentation for Plot No 2A
Prafulved Infra Pvt. Ltd
PRAFULVED INFRA PVT. LTD. NAGPUR

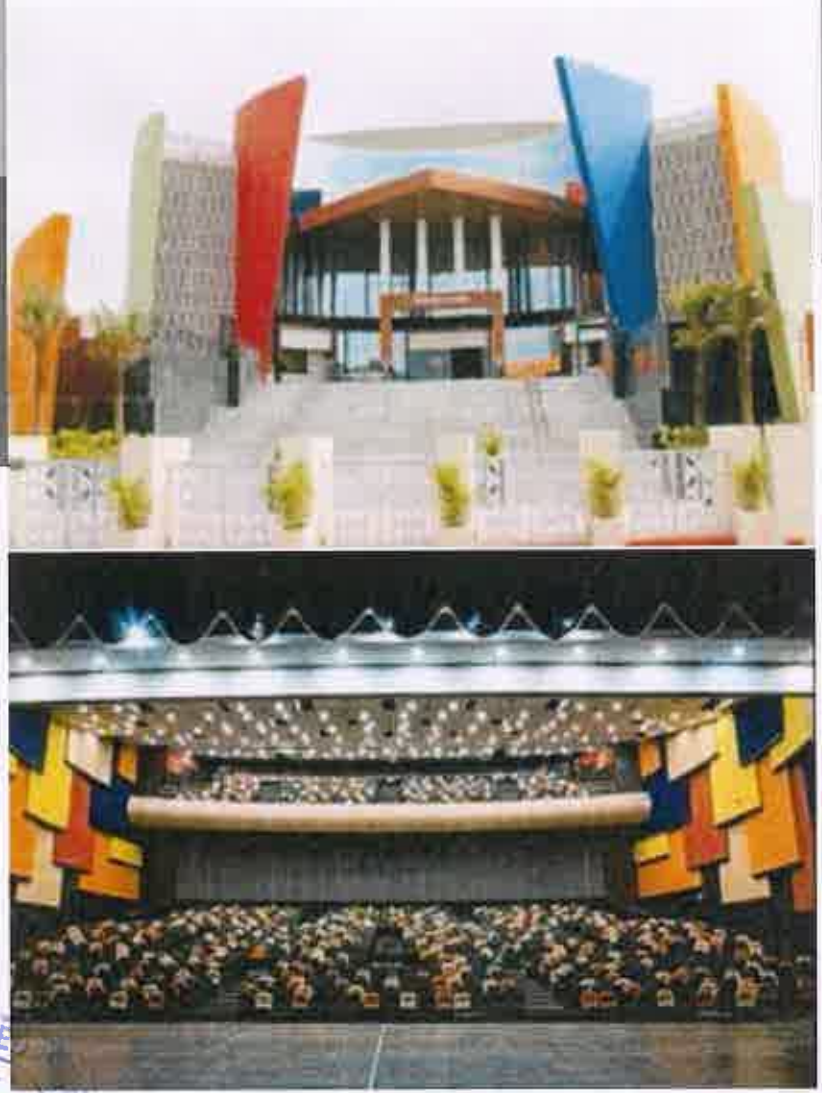
Completed Projects







Technical Concept Presentation
Plot No 2A
Prafulved Infra Pvt. Ltd
PRAFULVED INFRA PVT. LTD. NAGPUR



Completed Projects

/08

Constructed the Prestigious **Kavivarya Suresh Bhat Auditorium** (Project by NMC) inaugurated by President of India

Hon. Shri Ramnath Kovind

Achievements



Awarded by Nagpur Municipal Corporation at the hands of Hon. Shri Nitinji Gadkari - Union Minister, Road Transport & Highways, for successful completion of Kavivarya Suresh Bhat Auditorium

Paid Demand (17.79 Cr) for Building Permission of Commercial Tower to Town Planning Nagpur Municipal Corporation.

PRAFULVED INFRA PVT. LTD. NAGPUR

Other Achievements



Constructed 3 bridges using Flexi Arch technology for the first time in India & completed the project in a brief span of 4 months one of them is nominated for best Precast structure in India by ICI (Indian Concrete Institute) held at Delhi in 2018.

Casted longest PT BEAM in a Commercial /Public building 38m x1.8m x 1.8m.



COVID-19 WORK

Renovated 110-bedded Indira Gandhi Rugnalaya in 1 Month & 36-bedded Isolation Facility in just 7 days for NMC during the first Covid-19 Lockdown in 2020

Our Prestigious Customers

Mr.Umesh Yadav
Indian Cricketer

Mahesh Naik
Electrical Contractor
Sammrudhi Express way

Mr.Pradeep Deshmukh
Tribunal Judge, NCLT

Lotus Properties

CDET Explosive

Mr.Ramesh Tolani
Tribunal Judge, Income Tax

Lotus Properties



Technical Concept Presentation for Plot No 2A

Orange City Street Plot

No 2A Mall Project



EXPERIENCE

- Experience in PPP Project
- Experience in Commercial Projects

CONSTRUCTION

- Quality
- On-Time Completion

SALE

- Fast-Selling
- Reputed Brands

FINANCE

- Revenue Generation
- Payment Schedule

PRAFULVED INFRA PVT. LTD. NAGPUR

PPP Project Experience

Orange City Street Plot No 2A Mall Project

As this is the ppp project the experience of similar type of work will play vital role as Prafulved Infra pvt ltd is already associated with NMC for the development of plot no 1 b and the project is moving well ahead of expected completion, the time line expected for completion of project is 30 months presently we are in 8th month and completed 65% of the project.





Experience of commercial project

Orange City Street Plot No 2A Mall Project



We have privileged that we delivered the tallest commercial project to Nagpur city.

Highlights :

It's a fully commercial tower situated at prime location of Shivaji nagar Nagpur.

G+18 full glass façade with heat resistive glasses.

PRAFULVED INFRA PVT. LTD. NAGPUR

Quality

Orange City Street Plot No 2A Mall Project

The Orange City plot no 2A Mall is a visionary project which promises to be a gem in Nagpur's future skyline and proposed Orange city Street.

As an ISO 9001:2015 & ISO 14001:2015-certified company with a work ethic rooted in quality and service, we believe our long-standing associations with vendors and suppliers of the highest repute, will continue to aid us in delivering the kind of high-quality, world-class construction required for a prestigious project such as this.



/15

ON-TIME

Completion

Orange City Street Plot No 2A Mall Project

Construction Schedule as per the Existing Plan is as follows:

RCC Part Completion Period- 20 Months

Services Completion Period- 4 Months



HOW IS THIS ACHIEVABLE?

- **Our team of In-house Architects Project Planers & Own Shuttering material simplifies achieving above deadlines**

PRAFULVED INFRA PVT. LTD. NAGPUR

Orange City Street Plot No 2A Mall Project

FAST SELLING



As seen here, we sold our last G+18 fully Commercial Tower in a record-breaking span of 15 Days.

In plot no 1b Orange City Mall we have 100% sale commitment .

For the Orange City Street Plot No 2A Mall Project too, Fast-selling will play an important role, as NMC'S Land Cost Payment would depend on it.

With our far-reaching customer base, extensive network and having already received letters of interest from existing clients; we can guarantee fast-moving sales

Interested Customers

Orange City Street Plot No 2A Mall Project

Sr No	Name Of Customer	Area Required in Sq ft
1.	MR.UMESH YADAV	5000 Sq ft
2.	DASS JEWELLERS	10000 Sq ft
3.	CAPELLO SALON	7000 Sq ft
4.	CENTRAL SWITCHGEARS PVT LTD.	10000 Sq ft
5.	R & Y LOGISTICS	6000 Sq ft
6.	CDET EXPLOSIVE	5000 Sq ft
7.	SAI INFRASTRUCTURE	7500 Sq ft
8.	SAMRUDHHI INFRA PROJECTS	45000 Sq ft
9.	MANMOHAN SHARMA	15000 Sq ft
10.	PRITESH TANK	15000 Sq ft

PRAFULVED INFRA PVT. LTD. NAGPUR

REPUTED BRANDS

Orange City Street Plot No 2A Mall Project

The success of any commercial property is hugely dependent on its brand associations, which in turn impacts customer footfall.

This is where a commercial complex's ambience & maintenance play a defining role. Higher visible potential to attract customer footfall is a sure way of attracting valuable brands.

Our experience in commercial projects and in dealing with corporates will enable us to forge the right brand associations for this one-of-its-kind project.



Companies Associated With Us for Commercial Spaces

kotak Kotak Mahindra Bank

DASS JEWELLERS



WESTSIDE

Domino's Pizza

THE Albert Ellis INSTITUTE

BAJAJ FINANCE

Kawasaki

MAX LIFE INSURANCE

MOTOR HARLEY-DAVIDSON CYCLES

PRAFULVED INFRA PVT. LTD. NAGPUR

Companies Associated With Us For PLOT NO 1b OCM

WESTSIDE

ICICI Bank

GINGER Hotels
A TATA Enterprise

TANISHQ
A TATA PRODUCT

PRAFULVED INFRA PVT. LTD. NAGPUR

Revenue Generation Table

Sr No	Particulars	Particulars	Amount in Crore
1	Ground &First Floor	30,000 Sq.Ft @ 10000/- Per Sq.Ft	30.00 Cr
2	Second ,Third & Fourth Floor	63,000 Sq.Ft @ 6000/- Per Sq.Ft	37.8 Cr
3	Fifth & Sixth Floor	42,000 Sq.Ft @ 5500/- Per Sq.Ft	23.10 Cr
4	Seventh & Eight Floor	42,000 Sq.Ft @ 5300/- Per Sq.Ft	22.26 Cr
5	Nineth to Eleventh Floor	63,000 Sq.Ft @ 5000/- Per Sq.Ft	21.00 Cr
		Total Revenue Generated in Crore	**134.16 Cr**

Orange City Street Plot No 2A Mall Project

Revenue Generation Table

Revenue Generation: ₹134.16 Cr

Project Cost: ₹120 Cr

Profit= Revenue Generation -Total Project Cost

Hence, Profit from said Project =134.16Cr - 120Cr = ₹14.16 Cr

So, the Profitability of this Project is 10.5%* (approx.)

PROPOSED REVISED ELEVATION



If we get opportunity to develop plot no 2a, we will try to adopt above mentioned elevation.



Technical Concept Presentation for Plot No 2A

Prafulved Infra Pvt Ltd

FINANCIAL OFFER

T-93

BOQ Summary Details
Tender Title: Development of Commercial Complex under O.C.S.P Nagpur, on Plot No 2A (DBFMS) model
Tender ID: 2022_NMCN_841806_1

Sheet Name	Sl.No	Bidder Name	Amount	Bid Rank
BoQ1	1	SANDESH INFRASTRUCTURS PVT LTD	420630000.00	L1 — H3
	2	SADIQ AND COMPANY	421100000.14	L2 — H2
	3	PRAFULVED INFRA PRIVATE LIMITED	515130000.00	L3 — H1

CAFO

EE (Project)

PRAFULVED INFRA PVT. LTD. NAGPUR

FINANCIAL PLAN

Revenue Statement				
(In Rs Cr)	Construction Period			
	Year1	Year2	Year3	Summery Of The Project
Operating Income:				
A. Revenue from Sale of Property				
Project Builtup Area (Sqmt)	7432.18	7432.18	7432.18	22296.54
Retail/ Shops (Sqmt)	2787.068	0	0	2787.068
Offices (Sqmt)	4877.37	7316.055	7316.055	19509.48
Eleventh Floor				
Sales Revenue (Rs Cr)				9.05
On Booking Stage	1.81			1.81
On Slabs Stage	2.11	2.11	2.11	6.335
On Final Completion Stage			0.905	0.905
Tenth Floor				
Sales Revenue (Rs Cr)				9.05
On Booking Stage	1.81			1.81
On Slabs Stage	2.11	2.11	2.11	6.335
On Final Completion Stage			0.905	0.905
Ninth Floor				
Sales Revenue (Rs Cr)				9.05
On Booking Stage	1.81			1.81
On Slabs Stage	2.11	2.11	2.11	6.335
On Final Completion Stage			0.905	0.905
Eighth Floor				
Sales Revenue (Rs Cr)				10.05
On Booking Stage	2.01			2.01
On Slabs Stage	2.35	2.35	2.35	7.035
On Final Completion Stage			1.005	1.005
Seventh Floor				
Sales Revenue (Rs Cr)				10.05
On Booking Stage	2.01			2.01
On Slabs Stage	2.35	2.35	2.35	7.035
On Final Completion Stage			1.005	1.005
Sixth Floor				
Sales Revenue (Rs Cr)				10.5
On Booking Stage	2.1			2.1
On Slabs Stage	2.45	2.45	2.45	7.35
On Final Completion Stage			1.05	1.05
Fifth Floor				
Sales Revenue (Rs Cr)				10.5
On Booking Stage	2.1			2.1
On Slabs Stage	2.45	2.45	2.45	7.35

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On Final Completion Stage			1.05	1.05
Fourth Floor				
Sales Revenue (Rs Cr)				11.15
On Booking Stage	2.23			2.23
On Slabs Stage	2.60	2.60	2.60	7.805
On Final Completion Stage			1.115	1.115
Third Floor				
Sales Revenue (Rs Cr)				12.6
On Booking Stage	2.52			2.52
On Slabs Stage	2.94	2.94	2.94	8.82
On Final Completion Stage			1.26	1.26
Second Floor				
Sales Revenue (Rs Cr)				12.6
On Booking Stage	2.52			2.52
On Slabs Stage	2.94	2.94	2.94	8.82
On Final Completion Stage			1.26	1.26
First Floor				
Sales Revenue (Rs Cr)				15
On Booking Stage	3			3
On Slabs Stage	3.50	3.50	3.50	10.5
On Final Completion Stage			1.5	1.5
Ground Floor				
Sales Revenue (Rs Cr)				15
On Booking Stage	3			3
On Slabs Stage	3.50	3.50	3.50	10.5
On Final Completion Stage			1.5	1.5
B. Income from other sources				
Parking				-
Advertisements				-
Any other sources				-
Total Revenue From Operations				Nil
Operating Expenditure				
Marketing and Advertisement Expenses	0.33	0.33	0.33	1
O&M Expenses				-
Banking Costs	1	0.5	0.5	2
PMC/Architect/DPR Costs	0.2	0.1	0.1	0.4
Costs for Statutory Clearances such as AAI, EC etc	0.5	0.25	0.25	1
Insurance Expenses	0.03	0.03	0.03	0.1
Revenue to be paid to NMC	10.302	20.604	20.604	51.51
Upfront Premium to be paid to NMC	5	0	0	5
Any Other Expenses	0.17	0.17	0.17	0.5
Total Expenditure	32.9669	38.2689	38.2689	113.02
EBITDA	0	7.264	10.896	18.16
Depreciation	0.1	0.2	0.2	0.5



EBIT	-0.1	7.064	10.696	17.66
Financial Exp / Interest Paid	1	0.5	0.5	2
Profit Before Tax	-1.1	6.564	10.196	15.66
Income Tax	-0.33	1.9692	3.0588	4.698
PAT	-0.77	4.5948	7.1372	10.962
Cashflow Statement				
Cash Flow	8.5	4.25	4.25	17
Cash Inflows	2.5	1.25	4.25	5
Revenue	26.832	53.664	53.664	134.16
Debt	0	0	0	0
Equity	5	0	0	5
Total Cash Inflow	42.832	59.164	62.164	164.16
Cash Outflow				
Expenditure including Capex	37.67	37.67	37.67	113.02
Interest	1	0.5	0.5	2
Principal Repayment	0	13	14	27
Dividend	Nil	Nil	Nil	Nil
Tax	-0.33	1.9692	3.0588	4.698
Total Cash Outflow	38.34	53.14	55.23	146.718
Net Cashflow	4.49	6.02	6.94	17.44
Project IRR Computation (Rs Cr)				
EBITDA	-0.77	4.5948	7.1372	10.962
Capex	Nil	Nil	Nil	Nil
Net Project Cash Inflows	42.83	59.16	62.16	164.16
NPV of Project Cashflows	4.49	6.02	6.94	156.03
IRR (%)	10.49	10.18	11.16	10.61
NPV in Rs Crores	**14.273723**	**Positive hence project is viable**		
IRR (%)	**10.6%**			

PRAVEULVED INFRA PVT. LTD. NAGPUR

RESOLUTION

कार्यालय, नागपूर महानगरपालिका, नागपूर
(सचिवालय)

प्रस्तावना :-
{प्रकल्प विभाग}

ऑरेज सिटी स्ट्रीट प्रकल्प मधील मंजूर अभिन्यासातील भुखंड क्र. २ चे विभाजनाकरीता मा. आयुक्त महोदय यांच्या कक्षात दि. १०.०५.२०२२ रोजी चर्चा झाली, त्या अनुषंगाने प्रकल्पाचे सल्लागार आर्किटेक्ट हाफिज कॉन्ट्रॅक्टर (AHC) यांच्या कडुन अभिप्राय घेण्यात आले, आर्किटेक्ट हाफिज कॉन्ट्रॅक्टर (AHC) यांनी सादर केलेल्या 6 पर्यायापैकी पर्याय क्र. 6 प्रमाणे भुखंड क. 2 चे 3 भागात विभाजन करण्याकरीता उप संचालक, नगररचना विभागाकडुन सुधारीत अभिन्यास मंजूरी घेण्यात आली. (अभिन्यास मंजूरी क्र. मनपाना/नरवि/इमारत विभाग/04/अभिन्यास दि. 07.07.2022 अन्वये मंजूरी प्राप्त आहे)

मा. आयुक्त महोदय यांनी दिलेल्या निर्देशानुसार प्रकल्प सल्लागार आर्किटेक्ट हाफिज कॉन्ट्रॅक्टर (AHC) यांच्या कडुन Financial, Feasibility आणि Bid Documents तयार करण्यात आले.

भुखंड क. 2–ए ची विस्तृत माहिती खालील प्रमाणे आहे.

भुखंडाचे क्षेत्रफळ – 3363.037 चौ.मी.

विमानतळ प्राधिकरणाकडुन उंची करीता नाहरकत प्रमाणपत्र –42.05 मी.

Permissible Built Up Area FSI-4 (TOD क्षेत्र अंतर्गत येत असल्याने)

सदर प्रकल्प Design, Build, Finance, Operate & Sale (DBFOS) या तत्वावर विकास करण्याबाबत निविदा काढण्यात आले. आर्किटेक्ट हाफिज कॉन्ट्रॅक्टर (AHC) यांनी सादर केलेले RFP and D.A. तयार केले व ते कायदयाचे सल्लागार यांच्या कडुन तपासणी करण्यात आले व या प्रकल्पाकरीता Offset Value 42 कोटी निश्चित करण्यात आली.

ऑरेज सिटी स्ट्रीट प्रकल्प मधील मंजूर अभिन्यासातील भुखंड क्र. १–बी करीता निविदा मागवून ऑरेज सिटी मॉल विकास करण्याकरीता विकासकाला DBFOS या तत्वावर देण्यात आलेला आहे. त्याच आधारावर भुखंड क. 2–ए ची निविदा दि. 03.10.2022 ला प्रकाशित करण्यात आले.

या मध्ये एकुण 3 निविदा प्राप्त झालेल्या असून त्या खालील प्रमाणे.

1) मे. प्रफुलवेद इन्फ्रा प्रा.लि.
2) मे. सादीक ॲन्ड कंपनी
3) मे. संदेश इन्फास्ट्रक्चर प्रा. लि.

वरील प्राप्त निविदाची या कामाच्या PMC द्वारे तांत्रिक पळताळणी केली व पुढे या कामाच्या वित्तीय निविदा दि. 15.12.2022 ला उघडण्यात आल्या व त्याप्रमाणे महत्तम निविदाचे विवरण पुढील प्रमाणे आहे.

अ.क.	निविदाकाराचे नाव	निविदा देकार	शेरा
1	मे. प्रफुलवेद इन्फ्रा प्रा. ली.	रू. 515130000/–	H1
2	मे. सादीक ॲन्ड कंपनी	रू. 421100000/–	H2
3	मे. संदेश इन्फ्रा. प्रा. लि.	रू. 420630000/–	H3

उक्त निविदा प्राप्त महत्तम निविदाकाराचे नाव :– मे. प्रफुलवेद इन्फ्रा प्रा. ली.
प्राप्त निविदा राशी रू. 51,51,30,000/–

प्राप्त महत्तम निविदाकार मे. प्रफुलवेद इन्फ्रा. प्रा. लि. यांची प्राप्त निविदा राशी एकुण रू. 51,51,30,000 (अक्षरी एक्कावन कोटी एक्कावन लाख तिस हजार फक्त) ची निविदा मंजूरीस्तव विचारात घेणे.

विकासकाला प्रभावी तारखेपासून 30 दिवसाच्या आत रू. 2.00 कोटी व 3.00 कोटी, रूपये शिल्लक ठेवा 3 समान हप्त्याद्वारे प्रत्येकी 1.00 कोटी प्रत्येकी 3 महिन्यांनी म्हणजे प्रभावी तारखेपासून 9 महिन्याच्या आत जमा करावे लागतील.

2) उर्वरित रकमेचे भुगतान खालीलप्रमाणे राहील.

अ.क.	मेट्रोमॉलच्या भागाची करण्यात आलेली विकी टक्केवारी मध्ये	विकासकाने मनपाला करावयाचे भुगतान टक्केवारी मध्ये
1	20%	25%
2	45%	50%
3	70%	75%
4	80%	100

विकासकाला करारनाम्याच्या तारखेपासून 42 महिन्याच्या आत संपूर्ण बांधकाम पुर्ण करावे लागेल.

करीता महत्तम निविदाकार मे. प्रफुलवेद इन्फ्रा. प्रा. लि. यांची रू. 51,51,30,000 ची निविदा मंजूरीचा प्रश्न विचारात घेणे.

टिप :– विकासाद्वारे मनपाला दयावयाच्या रकमेचा तपशील खालील प्रमाणे प्रमाणे.

1) विकासकाला Appointed date चे पत्र प्राप्त झाल्याच्या तारखेपासून 30 दिवसाचे आत अग्रीम भुगतान रू. 5.00 कोटी पैकी रू. 2.00 कोटी मनपाच्या खात्यात जमा करावे लागतील व उर्वरित 3.00 कोटी नऊ महीन्याच्या आत जमा करावे लागतील.

2) उर्वरित रकमेचे भुगतान खालीलप्रमाणे राहील.

अ.क्र.	मेट्रोमॉलच्या भागाची करण्यात आलेली विकी टक्केवारी मध्ये	विकासकाने मनपाला करावयाचे भुगतान टक्केवारी मध्ये
1	20%	25%
2	45%	50%
3	70%	75%
4	80%	100

विकासकाला करारनाम्याच्या तारखेपासून 42 महिन्याच्या आत संपूर्ण बांधकाम पुर्ण करावे लागेल.

3) सविस्तर टिपणी व दस्ताऐवज नस्ती मध्ये उपलब्ध आहे.

पारीत ठराव

ठराव क्रमांक :- 229 /मनपा/प्रशासक **दिनांक :- 28 /12 /2022**

महाराष्ट्र शासन नगरविकास विभागाकडील शासन आदेश क्रमांक एमसीओ-२०२०/प्र.क्र. ७१ (भाग-२) /नवि-१४ दिनांक ०३/०३/२०२२ अन्वये महाराष्ट्र महानगरपालिका अधिनियमातील तरतुदी व विशेषत: कलम ४५२ अ च्या (१ अ) व (१ब) मधील तरतूदीनुसार दिनांक ०४-०३-२०२२ अन्वये मला प्राप्त झालेल्या अधिकारानुसार कार्यकारी अभियंता (प्रकल्प), प्रकल्प विभाग यांनी वरील प्रमाणे प्रस्तावीत केल्यानुसार ऑरेज सिटी स्ट्रीट प्रकल्प मधील मंजूर अभिन्यासातील भुखंड क. २ चे विभाजनाकरीता मा. आयुक्त महोदय यांच्या कक्षात दि. १०.०५.२०२२ रोजी चर्चा झाली, त्या अनुषंगाने प्रकल्पाचे सल्लागार आर्किटेक्ट हाफिज कॉन्ट्रॅक्टर (AHC) यांच्या कडुन अभिप्राय घेण्यात आले, आर्किटेक्ट हाफिज कॉन्ट्रॅक्टर (AHC) यांनी सादर केलेल्या 6 पर्यायापैकी पर्याय क. 6 प्रमाणे भुखंड क. 2 चे 3 भागात विभाजन करण्याकरीता उप संचालक, नगररचना विभागाकडुन सुधारीत अभिन्यास मंजूरी घेण्यात आली. (अभिन्यास मंजूरी क. मनपाना/नरवि/इमारत विभाग/04/अभिन्यास दि. 07.07.2022 अन्वये मंजूरी प्राप्त आहे)

मा. आयुक्त महोदय यांनी दिलेल्या निर्देशानुसार प्रकल्प सल्लागार आर्किटेक्ट हाफिज कॉन्ट्रॅक्टर (AHC) यांच्या कडुन Financial, Feasibility आणि Bid Documents तयार करण्यात आले.

भुखंड क. 2–ए ची विस्तृत माहिती खालील प्रमाणे आहे.

भुखंडाचे क्षेत्रफळ :– 3363.037 चौ.मी.

विमानतळ प्राधिकरणाकडुन उंची करीता नाहरकत प्रमाणपत्र –42.05 मी.

Permissible Built Up Area FSI-4 (TOD क्षेत्र अंतर्गत येत असल्याने)

सदर प्रकल्प Design, Build, Finance, Operate & Sale (DBFOS) या तत्वावर विकास करण्याबाबत निविदा काढण्यात आले. आर्किटेक्ट हाफिज कॉन्ट्रॅक्टर (AHC) यांनी सादर केलेले RFP and D.A. तयार केले व ते कायदयाचे सल्लागार यांच्या कडुन तपासणी करण्यात आले व या प्रकल्पाकरीता Offset Value 42 कोटी निश्चित करण्यात आली.

ऑरेज सिटी स्ट्रीट प्रकल्प मधील मंजूर अभिन्यासातील भुखंड क. १–बी करीता निविदा मागवून ऑरेज सिटी मॉल विकास करण्याकरीता विकासकाला DBFOS या तत्वावर देण्यात आलेला आहे. त्याच आधारावर भुखंड क. 2–ए ची निविदा दि. 03.10.2022 ला प्रकाशित करण्यात आले.

या मध्ये एकुण 3 निविदा प्राप्त झालेल्या असून त्या खालील प्रमाणे.

1) मे. प्रफुलवेद इन्फ्रा प्रा.लि.

2) मे. सादीक अॅन्ड कंपनी

3) मे. संदेश इन्फास्ट्रक्चर प्रा. लि.

वरील प्राप्त निविदाची या कामाच्या PMC द्वारे तांत्रिक पळताळणी केली व पुढे या कामाच्या वित्तीय निविदा दि. 15.12.2022 ला उघडण्यात आल्या व त्याप्रमाणे महत्तम निविदाचे विवरण पुढील प्रमाणे आहे.

अ.क.	निविदाकाराचे नाव	निविदा देकार	शेरा
1	मे. प्रफुलवेद इन्फा प्रा. ली.	रू. 515130000/–	H1
2	मे. सादीक अॅन्ड कंपनी	रू. 421100000/–	H2
3	मे. संदेश इन्फा. प्रा. लि.	रू. 420630000/–	H3

उक्त निविदा प्राप्त महत्तम निविदाकाराचे नाव :– मे. प्रफुलवेद इन्फा प्रा. लीं.
प्राप्त निविदा राशी रू. 51,51,30,000/–

प्राप्त महत्तम निविदाकार मे. प्रफुलवेद इन्फा. प्रा. लि. यांची प्राप्त निविदा राशी एकुण रू. 51,51,30,000 (अक्षरी एक्कावन कोटी एक्कावन लाख तिस हजार फक्त) ची निविदा मंजूरीस्तव विचारात घेणे.

विकासकाला प्रभावी तारखेपासून 30 दिवसाच्या आत रू. 2.00 कोटी व 3.00 कोटी, रूपये शिल्लक ठेवा 3 समान हप्त्याद्वारे प्रत्येकी 1.00 कोटी प्रत्येकी 3 महिन्यांनी म्हणजे प्रभावी तारखेपासून 9 महिन्याच्या आत जमा करावे लागतील.

2) उर्वरित रकमेचे भुगतान खालीलप्रमाणे राहील.

अ.क.	मेट्रोमॉलच्या भागाची करण्यात आलेली विक्री टक्केवारी मध्ये	विकासकाने मनपाला करावयाचे भुगतान टक्केवारी मध्ये
1	20%	25%
2	45%	50%
3	70%	75%
4	80%	100

विकासकाला करारनाम्याच्या तारखेपासून 42 महिन्याच्या आत संपूर्ण बांधकाम पुर्ण करावे लागेल. करीता महत्तम निविदाकार मे. प्रफुलवेद इन्फा. प्रा. लि. यांची रू. 51,51,30,000 ची निविदा मंजूरीच्या प्रस्तावास मान्यात प्रदान करण्यात येत आहे.

12/22

राधाकृष्णन बी. (भा.प्र.से.)
प्रशासक
नागपूर महानगरपालिका, नागपूर

LETTER OF AWARD

NAGPUR MUNICIPAL CORPORATION

OFFICE OF THE EXECUTIVE ENGINEER (PROJECT)

MAHANAGARPALIKA MARG, CIVIL LINES NAGPUR – 440 001

☎ 0712 – 2542881, ☎(Fax) 2561584

No: 107/EE(P)

Date : 28 /12/2022

LETTER OF AWARD

To

PrafulVed Infra Pvt Ltd
F.No 501, Shrikrishna Residency,
Dharampeth, Nagpur-440010

Subject: - Letter of Award (LOA) for Selection as Developer for the Construction of Commercial Complex with requisite parking at the NMC ORANGE CITY STREET PROJECT PLOT NO 2-A site at Nagpur (Next to Plot No 1-B Orange City Mall Building) on Design-Build-Finance- Operate and Sale (DBFOS) basis mode.

Dear Sir,

1. This is with reference to the bidding-process vide NIT No.2022_ NMCN 841806 _1 dated 31/10/2021 conducted by Nagpur Municipal Corporation, for the selection of Developer for the construction of Commercial Complex with requisite parking at the NMC ORANGE CITY STREET PROJECT Plot No 2-A site at Nagpur (Next of Plot No 1-B Orange City Mall Building) on Design-Build-Finance operate and Sale (DBFOS) basis mode.

2. Your company i.e. M/s PrafulVed Infra Pvt Ltd Hereinafter referred to as Prafulved, had submitted its technical and financial proposal in response to the above mention bidding on the bid submission date i.e. 22/11/2022 and was found technically qualified and hence your financial proposal was opened on 15/12/2022.

   Based on the evaluation of your financial proposal and in accordance with the bidding criteria of the RFP document and subsequent clarifications sought by Nagpur Municipal Corporation, we are pleased to inform you that Prafulved has emerged as the H-1 bidder for the project and therefore is the Selected Bidder for the project.

3. The quoted Lump-sum Financial offer to be shared by Prafulved with NMC from sale proceeds from the various components of the project is Rs. 51,51,30,000/- Accordingly the proposal was submitted to the Committee, Nagpur Municipal Corporation on 27/12/2021 and the Committee, Nagpur Municipal Corporation has accorded approval to your proposal vide its Resolution dated and accepted and accorded consent/ approval to the proposal of PrafulVed to act as the Developer for the construction of Commercial Complex with requisite parking at the NMC ORANGE CITY STREET PROJECT Plot No 2-A.

Site at Nagpur (Next to Plot No 1-B Orange City Mall Building) on Design- Build –Finance- Operate and Sale (DBFOS) basis mode for the quoted lump-sum financial offer to be shared by PrafulVed with NMC of Rs. 51,51,30,000/- and has selected PrafulVed as the Developer for the construction of Commercial Complex with requisite parking at the NMC ORANGE CITY STREET PROJECT Plot No 2-A site at Nagpur (Next to Plot No 1-B Orange City Mall Building) in accordance with the terms and conditions of the RFP document and its subsequent corrigenda.

4. In accordance with the approval of the Hon'ble Municipal Commissioner/Administrator, Nagpur Municipal Corporation vide its order dated. 28/12/2021 has given the approval for the implementation of your proposal.

5. The selected Bidder is also required to fulfill the terms and conditions as required in the RFP document and corrigenda issued by Nagpur Municipal Corporation at the earliest. The selected Bidder and the Nagpur Municipal Corporation shall also execute a development agreement, the draft of which was issued along with the RFP document. The terms and conditions to be fulfilled immediately on issue of this letter of Award are :-

   a) Sign and return a duplicate copy of LOA to the NMC within 7 days,

   b) Submit the performance security 5% of the construction cost i.e. Rs. 3.2 Cr within 14 days of LOA, (in the form of B.G) as per the RFP data sheet and RFP clause on 5.3

   c) Execute the Development Agreement in accordance with the RFP document, subsequent corrigenda and sought clarifications, within 21 days of issue of this LOA,

   d) Disburse the upfront premium to NMC by paying minimum Rs. 2 Crores within 30 days of signing of the effective date.
   Balance Rs. 3.00 Cr by way of 3 equal instalments of Rs. 1.00 Cr each to be paid every 3 months i.e. within 9 months from effective date.

   e) Submit the Rs. 5,15,130/- denomination stamp paper/ by way of Franking for execution of the Development Agreement.

   f) The Bid Security of Rs. 10,00,000 (Rupees Ten Lacs Only) shall be retained till you have provided the performance security in accordance with the clause 5.2.8 of the RFP & as per this letter of Award and as a pre-condition to the execution of the Development Agreement.

   g) All the terms and conditions of the RFP document, the subsequent corrigenda and the clarifications sought shall from part of the Development Agreement to be entered into subsequently.

6) The selected bidder and Nagpur Municipal Corporation shall finalize and execute the Development Agreement on the fulfillment of the above mentioned clauses i.e. 6 "a" to "z"

In token of unconditional acceptance of the above mentioned terms and conditions and this LoA, we request you to give an accepted duplicate copy of this letter of award within seven (7) days of its issue.

Execute Engineer (Project)
Nagpur Municipal Corporation

Accepted by

(Authorized Signatory)
(M/s PrafulVed Infra Ltd.)

Copy submitted to :-

1. Hon'ble Municipal Commissioner, NMC, Nagpur for information.
2. Hon'ble Chief Engineer, NMC, Nagpur for information.
3. Superintending Engineer, NMC, Nagpur for information

PRAFULVED INFRA PVT. LTD. NAGPUR

BANK GARUANTEE

इंडियन बैंक
Indian Bank
NAGPUR BRANCH
Cement Road,
Shivaji Nagar,
Nagpur-440010
INDIA

PHONE: 91-0712-2534380, 2521056
Per.:2527737
Fax: (0712)2527737
Email: nagpur@indianbank.co.in
Visit Us: www.indian-bank.com

Dated: 08/02/2023

To,
THE COMMISSIONER
NAGPUR MUNICIPAL CORPORATION
CIVIL LINES MAHANAGAR PALIKA MARG
NAGPUR

Dear Sirs,

Ref: **Confirmation of BANK GUARANTEE NO. 00454IG230000009 dated 08/02/2023**

This covering letter is issued to be annexed to the issuance of letter of Guarantee No. 00454IG230000009 **dated 08/02/2023** for amount of Rs. 32000000/- (Rupees Three Crore Twenty Lakh only) & valid up to 07/02/2025 executed on non-judicial stamp papers of Rs. 100/- issued by this office under the joint signatures of Shri **Sanjay Kumar Pawar** Senior Manager/Shri **Yogesh Yewale** Asst Manager. This guarantee is issued on behalf of our Customer, Prafulved Infra Private Ltd F No 501 Shrikrishna Residency Dharampeth Nagpur-440010.

Yours faithfully,

Branch Manager

इंडियन बैंक नागपुर NAGPUR INDIAN BANK

CC, Zonal Office
Indian Bank,
Civil Lines
NAGPUR

PRAFULVED INFRA PVT. LTD. NAGPUR

भारतीय गैर न्यायिक

भारत INDIA

रु. 500 FIVE HUNDRED RUPEES

पाँच सौ रुपये Rs. 500

सत्यमेव जयते

INDIA NON JUDICIAL

महाराष्ट्र MAHARASHTRA ◑ 2022 ◑ BP 069948

13 JAN 2022

Stamp Head Clerk / Sr. Clerk

To
The commissioner
Nagpur Municipal corporation civil Lines
Mahanagar Palika Marg Nagpur.

WHEREAS:

A. Nagpur Municipal Corporation (**"NMC"**) as per the letter of Award dt.28.12.2022 Whereby NMC has agreed to grant **Prafulved Infra Private Limited** (the Developer) the Concession for implementing the project for planning and development of commercial complex on plot 2A of OCSP at Jaiprakash Nagar, Nagpur. **("Project")** on design build finance, operate and sales ("DBFOS") basis and will enter into a Development Agreement (Agreement) subject to and in accordance with the provision of the Development Agreement.

B. The Agreement requires the Developer to furnish a performance security to NMC in a Sum of Rs.3, 20, 00,000/- (Three crores twenty lakhs only) (the "Bank Guarantee Amount) as security for due and faithful performance of its obligation, under and in accordance with the Agreement during for the Construction work (as defined in the Agreement).

कृते इंडियन बैंक
For INDIAN BANK
सहा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager
SR NO 23329

इंडियन बैंक नागपुर NAGPUR

कृते इंडियन बैंक
For INDIAN BANK
सहा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager

RECEIVED IN PRAFULVED INFRA PVT. LTD. NAGPUR

73

३) दस्त प्रकार/अनुच्छेद क्रमांक	लेख
४) दस्त नोंदणी करणार आहेत काय ?	होय/नाही
५) नोंदणी होणार असल्यास दुय्यम निबंधक कार्यालयाचे नाव	दुय्यम निबंधक क्र
६) मिळकतीचे वर्णन -	
७) मोबदला रक्कम	
८) मुद्रांक विकत घेणाऱ्याचे नाव	एडीयन्स लेक
९) दुसऱ्या पक्षकाराचे नाव	
१०) हस्ते अशासन त्यांचे नाव व पत्ता	प्रमोद
११) मुद्रांक शुल्क रक्कम	
१२) मुद्रांक विक्री नोंद वही अनु. क्र.	98469 /दिनांक
१३) मुद्रांक विकत घेणाऱ्याची सही	

नागनाथ ग. मोहाडीकर

मुद्रांक विक्रेता, ला. क्र. १५/११, कोड क्र ४६०१०३
जिल्हाधिकारी परिसर, स. कार्यालय, नागपूर



C We Indian bank, a body corporate constituted under the banking companies (Acquisition and Transfer of Undertaking) Act v of 1970. having its corporate office at 254-260, avvai Shanmugam salal, Royapettah, Chennai-600014 Tamilnadu and one of its branch office at 199. Cement road, Shivaji Nagar Nagpur 440010 (hereinafter called the bank which expression shall include its successors and assign.)

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably. bank guarantees ad affirms as follows.

1. The Bank here unconditionally and irrevocable bank guarantees the due and faithful performance of the Developers obligations during the Construction Works. Under in accordance with the Agreement, and agrees and undertakes to pay to NMC, upon its mere first written demand, and without any demur. Reservation, recourse, contest or protest, and without any reference to the Developer, such sum or sump up to an aggregate sum of the Bank guarantee Amount as NMC shall claim, without NMC being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the authorized representative of NMC that the Developer has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final, and binding on the Bank. The Bank further agrees that NMC shall be the sole judge as to whether the Developer is in default in due and faithful performance if its obligations during the Construction Work under the Agreement and its decision that the Developer is in default shall be final and binding on the Bank. notwithstanding any differences between NMC and the Developer or any dispute between them pending before any court, tribunal, arbitrator or any other authority or of the body or by the discharge of the Developer for any reason whatsoever.

3. In order to give effect to this Bank guarantee, NMC shall be entitled to act as if the Bank were the principal debtor, and any change in the constitution of the Developer and/or the Bank whether by their absorption with any other body of corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Bank guarantee.

4. It shall not be necessary. and the Bank hereby waives any necessity, for NMC to proceed against the Developer before presenting to the Bank its written demand under this Bank guarantee.

कृते इंडियन बैंक
For INDIAN BANK
सहा./वरिष्ठ मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Branch
SR no. 35323

इंडियन बैंक ★ नागपूर NAGPUR ★ INDIAN BANK

कृते इंडियन बैंक
For INDIAN BANK
SR. #1903
सहा./वरिष्ठ मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Branch

PRAFULVED INFRA PVT. LTD. NAGPUR

5. NMC shall have the liberty, without affection in any manner the liability of the Bank under this Bank guarantee to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfillment and /or performance of all or any of the obligations of the Developer contained in the Agreement of to postpone for any time and from time to time. any of the rights and powers exercisable by NMC against the Developer, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and / or the securities available to NMC, and the Bank shall not be released from its liability and obligation under these presents by any exercise by NMC of the liberty with reference to the matters aforesaid or by reason of time being given to the Developer or any other forbearance, indulgence, act or omission on the part of NMC or of any other matter or thing whatsoever which under any law relating to sureties and guarantors. Would but for this provision have the effect of releasing the Bank from its liability and obligation under this Bank guarantee and the Bank hereby waives all of its rights under any such law.

6. Notwithstanding anything contained in any law for the time being in force or banking practice this guarantee shall not be assignable of transferable by the beneficiary:-

- Our liability under this bank Guarantee shall not exceed 3,20,00,000/- (Three crore twenty lakhs only)
- This bank guarantee shall be valid up to 07.02.2025
- We are liable to pay up the guarantee amount only and only if we receive from you a written claim or demand no later than 12 months from the said expiry date i.e. 07.02.2025. Unless a written claim of demand under this guarantee is received by us on or before 12 months from the date of expiry of the guarantee. i.e. 07.02.2025 all your rights under this bank guarantee shall be extinguished and we shall have been from all liabilities hereunder. Irrespective of the return of the original guarantee.

7. This Bank guarantee is in addition to and not in substitution of derogation of any other bank guarantee of security now of which may hereafter be held by NMC in respect of or relating to the Agreement or for the fulfillment, compliance, and/or performance of all or any of the obligations of the Developer under the Agreement

8. The bank undertakes not to revoke this Bank guarantee during its currency, except with the previous express consent of NMC in writhing and declares and warrants that it has the power to issue this bank guarantee and the undersigned has full powers to do soon behalf of the bank.

PRAFULVED INFRA PVT. LTD. NAGPUR

कृते इंडियन बैंक
For INDIAN BANK
सहा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपुर शाखा/Nagpur Branch

SR no. 35323

इंडियन बैंक नागपुर INDIAN BANK

कृते इंडियन बैंक
For INDIAN BANK
SR-71903
सहा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपुर शाखा/Nagpur Branch

9. Any notice by way of request, the demand of otherwise hereunder may be sent by post addressed to the Bank at its above-referred Branch. which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it taught to have been delivered in due course of post and in proving such notice, when by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of NMC that the envelope duly acknowledged was so posted shall be conclusive.

10. This Bank guarantee shall come into force with immediate effect and shall remain in force and effect for a period specified in Paragraph 8 above

Signed and sealed this 08th day of February 2023 at Nagpur.

कृते इंडियन बैंक
For INDIAN BANK
सहा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Branch
SR no. 35323

INDIAN BANK नागपूर NAGPUR

कृते इंडियन बैंक
For INDIAN BANK
SR. 71903
सहा./वरिष्ठ/मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Branch

SIGNED SEALED AND DELIVERED

FOR AND ON BEHALF OF THE BANK BY

(Signature)
Designation:
Code Number:-
Address:-199, Cement Road, Shivaji Nagar, Nagpur, 440010

BANK LETTER

इंडियन बैंक Indian Bank
इलाहाबाद ALLAHABAD

NAGPUR Branch
199
, Kamla Bhuvan
Cement Road, Shivaji Nagar
Nagpur 440 010
Phone: 2534380, 2521056
Fax: 2527737

Date : 27.02.2023

To Whomsoever It May Concern

This is to inform that M/s Prafulved Infra Pvt Ltd has applied for the bank guarantee of Rs.3,20,00,000/- and submitted the application on 03/02/2023. After the verification of all the documents and completing all the formalities, we have issued the bank guarantee on 08/02/2023.

It is clarified that this information is furnished without any risk and responsibility on our part in any respect whatsoever more particularly either as guarantor or otherwise. This certificate is issued at the specific request of the customer.

Yours Faithfully,

Chief Manager/Branch Manager

PRAFULVED INFRA PVT. LTD. NAGPUR

BG CONFIRMATION LETTER

इंडियन बैंक Indian Bank
इलाहाबाद ALLAHABAD

NAGPUR Branch
199
, Kamla Bhuvan
Cement Road, Shivaji Nagar
Nagpur 440 010
Phone: 2534380, 2521056
Fax: 2527737

To,
The Office of the Executive Engineer (Project),
Nagpur Municipal Corporation,
Mahanagarpalika Marg,
Civil Lines,
Nagpur-440001

Date : 17.02.2023

Sub : Confirmation of Bank Guarantee No. 00454IG230000009 of Rs.3.20 Crore issued on 08.02.2023.

We confirm that we have issued the Bank Guarantee to M/s Prafulved Infra Pvt. Ltd. On 08.02.2023, the details of the Bank Guarantee is as under :

Bank Guarantee No : 00454IG230000009
Date of the Bank Guarantee Issued : 08.02.2023
Bank Guarantee Issued by : Indian Bank, Nagpur Branch
Amount of Bank Guarantee : Rs.3.20 Crore

Yours Faithfully,

Branch Manager/CM

PRAFULVED INFRA PVT. LTD. NAGPUR

CONSTITUTION DOCUMENTS & LEGAL OPINION FROM COUNSEL

GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS
Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that PRAFULVED INFRA PRIVATE LIMITED is incorporated on this Eleventh day of January Two thousand nineteen under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company U45200MH2019PTC319415.

The Permanent Account Number (PAN) of the company AAKCP2972M*

Is

The Tax Deduction and Collection Account Number (TAN) of the company isNGPP06538A*

Given under my hand at Manesar this Eleventh day of January Two thousand nineteen .

[redacted]

Digital Signature Certificate
Mrs. ANJALI POKHRIYAL
Assistant Registrar Of Companies
For and on behalf of the Jurisdictional Registrar of Companies
Registrar of Companies
Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on www.mca.gov.in

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Mailing Address as per record available in Registrar of Companies office:

PRAFULVED INFRA PRIVATE LIMITED
F NO 501,SHRIKRSHNA RESIDENCY, DHARAMPETH, NAGPUR, Nagpur,
Maharashtra, India, 440010

* as Issued by the Income Tax Department

PRAFULVED INFRA PVT. LTD. NAGPUR

[Pursuant to Schedule I (see Sections 4 and 5) to the Companies Act, 2013)] FORM NO. INC-33

SPICe MOA

(e-Memorandum of Association)

MOA language: (•) English ( ) Hindi

SRN of RUN: H39962741 Pre-fill

* Table applicable to company as notified under schedule I of the companies Act, 2013: A

Table A- MEMORANDUM OF ASSOCIATION OF A COMPANY LIMITED BY SHARES

1. The Name of the Company is: PRAFULVED INFRA PRIVATE LIMITED

2.The Registered office of the company will be situated in the state of: Maharashtra-MH

3.(a)The objects to be pursued by the company on its incorporation are

To carry on the business and to act, as Promoters, Land Developers, builders, residential and commercial construction contractors, developers of technology park, software parks, business parks, bio-technology park, Estate Brokers, Estate Agents, erectors of factories, industries, industrial sheds and to construct, execute, carry, equipments, improve, develop works and buildings, roadways, docks, harbors, wharfs, water courses, reservoirs, bridges, wells, embankments, irrigations, agricultural, non-agricultural land, erection works, reclamations, sewage, drainage and other buildings and any kind of work in connection with building and real estate, civil contractors, infrastructure development and other things related to construction undertaken from Government or other bodies corporate, whether in India or abroad and to carry on the business of consultancy and management services in the areas of real estate development, building, construction, infrastructure development and technical layouts, plans, blueprints, designs for the purpose of construction and building of houses, bungalows, residential apartments, hotels, holiday resorts, motels, factories, commercial premises, townships, tenements, housing schemes, co-operative societies, hospitals, gardens, bridges, roads, civil works, including for project construction management, artificial intelligence in construction management, structural design including computer aided development of and to monitor the progress of the said projects.

3.(b)Matters which are necessary for furtherance of the objects specified in clause 3(a) are

1. To undertake and carry on the office or offices and duties of executor, administrator, attorney or nominee of, or for any person, company, corporation, association, scheme, trust, fund, government, state, municipal or other body corporate for business of the Company.

2. To operate branch of a business which this Company is authorized to carry on by means, or through the agency of, any subsidiary company or companies, and to enter into any arrangement with such subsidiary company for taking the profits and bearing the losses of any business or branches so carried on, or for financing any such subsidiary company or guaranteeing its liabilities, or to make any other arrangement which may seem desirable with reference to any business or branch so carried on including power at any time and either temporarily or permanently to close any such branch or business.

3. To enter into partnership or into any arrangement for sharing profits, amalgamation, union of interest, co-operation, joint venture, reciprocal concession or otherwise or amalgamate with any person or Company carrying on or engaged in, or about to carry on or engage in any business or transaction which the Company is authorized to carry on or act on and to take or otherwise acquire share and securities of any such company and to sell, hold, reissue with or without guarantee or otherwise deal with the same.

4. To enter into foreign or Indian technical and/or financial collaboration, partnership or into any arrangement for sharing of profits, union of interest, co-operation, joint venture, reciprocal concession, or otherwise with any person, firm, corporation or government carrying on, engaged in or about to carry on or engage in any business undertaking to guarantee contracts or otherwise acquire and hold shares or securities of any such persons firms or companies, to sell, hold, re-issue with or without deal with the same.

5. To acquire and undertake the whole or any part of the business property and abilities of any person, firm or any Company carrying on any business which the Company is authorized to carry on or possessed of property suitable for the purpose of the Company.

6. To purchase, take on lease or otherwise acquire any land grants, concession and easement and hereditaments or other properties, any

real or personal property, patents, licenses, rights or privileges required for the attainment of the main object of the company and to construct maintain and alter any total offices, building or works necessary or convenient for the purpose of attaining the objects of the Company.

7. To enter into any arrangement with any governments or authorities that may seem conducive to the attainment of the Company's object or any of them and to obtain from any such government or authority, any rights, privileges, licenses and concession.

8. To pay for any services rendered to the Company or for supply of technical know-how for acquisition of properties by the Company either in the shares of the Company and partly in shares or partly in cash or otherwise.

9. To issue and allot fully or partly paid shares in the capital of the Company in payment or part payment if any real or personal property purchased or otherwise acquire by the Company or any services rendered to the Company.

10. To amalgamate, enter into any partnership or partially amalgamate with or acquire interest on the business of any other Company, person or firm carrying on or engaged in, or about to carry on engage in any business or transaction included in the objects of the Company, or enter into any arrangement for limiting competition or for sharing mutual assistance with any such person, firm or company in India or abroad or to acquire and of the acts or things aforesaid or property acquired, any share, debentures, debenture stock or securities that may be agreed upon, and to hold and retail or sell, mortgage and deal with any shares, debenture-stock or securities so received.

11. To establish or promote or concur in establishing or promoting any company or companies having similar objects for the purpose or acquiring all or any of the properties rights and liabilities of the Company and to place or guarantee the placing of, underwrite, subscribe for, or otherwise acquire all or any part of the shares, debentures or other securities of any such other company or companies.

12. To sell, lease, mortgage, hypothecate, transfer, let-out, or otherwise deal with the undertaking of the Company or any property whatever, or any part thereof for such consideration as the Company may think fit and in particular for shares, debentures and other securities of any other companies having objects altogether or in part similar to those of this Company if thought fit to distribute the same among the share holders of the Company subject to the provision of the Companies Act, 2013.

13. To create any depreciation fund, reserve fund, sinking for depreciation or for repairs, improving, extending or maintaining any of the property or other assets of the Company or for redemption of debentures of transferable preference shares or for any purpose whatsoever conducive to the interest of the Company.

14. To advance money loan or give credit with or without security to such person or companies and on such terms as may seem expedient and to guarantee to become liable for the payment of money or for the performance of any obligations, and generally to transact all kinds of guarantee business and also to transact all kinds of trust and agency business.

15. To invest the funds in shares, stocks, debentures, debenture-stock, bonds, obligations and securities issued or guaranteed by any company constituted or carrying on business in India or in any foreign country and debentures, debenture stock, bonds, obligations and securities issued or guaranteed by any Government, Sovereign Rulers, Commissioners, public body, or authority supreme, municipal, local or otherwise whether at home or abroad.

16. To receive money on deposit other than public deposits or loan other than public deposit borrow or raise money in such manner as the Company shall think fit without doing Banking business within the meaning of the Banking Regulation Act, 1949 and Rules or Regulation framed there under and in particular by the issue of debentures, debenture stock (Perpetual or otherwise) and to secure the repayment of any money borrowed, raised or owing by mortgage charge or lien upon all or any of the property or assets of the Company (both present and future) including its capital, and also by a similar mortgage, charge or lien to secure and guarantee the performance of contracts or obligation undertaken by the Company or any other person on behalf of the Company as the case may be subject to Section 58-A and R.B.I. Directives.

17. To negotiate loans, underwriting contract, mortgages, equity participation, cash credit, overdrafts and other financial facilities from Bank, Financial institutions, Government or semi Government bodies and others on behalf of the companies, or association, which they are assisting to promote.

18. To acquire and undertake the whole or any part of the business, property, and liabilities of any person or company carrying on (or proposing to carry on) any business which the company is authorized to carry on.

19. To sell, transfer or dispose of the business, property or undertaking of the Company or any part thereof for such consideration as the Company may think fit and in particular for shares, debentures or securities of any other company having objects altogether or in part similar to those of this Company.

20. To draw, make, accept, endorse, discount, negotiate, execute and issue bills of exchange, promissory notes, bills of lading, warrants, debentures and other negotiable or transferable instrument or securities.

21. To apply for, purchase or otherwise acquire and protect, prolong and renew in India and abroad, any patents, patent rights, brevets invention, trademarks, design licenses, protections, concession, conferring any exclusive or non-exclusive or limited right to their use or any secret or other information as to any invention, process of privilege which may seem capable of being used for any of the purpose of the Company and to use, exercise, develop or grant licenses or privilege in respect of or otherwise turn to account, the property, rights and information acquired and to carry on any business in any way connected therewith.

22. To open any kind of account including Current Account, Saving Bank Account, Overdraft, Loan Credits in any bank to make, accept, endorse, and execute promissory notes, bill of exchange and other negotiable instruments.

information of the Company or which the Company may acquire or propose to acquire.

24. To enter into arrangements and to take all necessary or authorities supreme, national, local, municipal or otherwise of any place in which the company may have interests and to carry on any negotiations or operations for the purpose of directly or indirectly carrying out the objects of the Company or effecting any modification in the constitution of the Company for furthering the interest of its members and to oppose any such steps taken by any other company, firm or persons which may be considered likely to directly or indirectly prejudice the interest of the Company or its members and to promote or assist the promotion, whether directly or indirectly of any legislation which may appear to be in the interests of the Company or its members and to promote or assist the promotion, whether directly or indirectly of any legislation which may seem disadvantageous to the Company and to obtain from such Government authority or any company, any charters, decree, rights, grants, loans Privileges or concessions, which the company may think it desirable to obtain and carry out, exercise and comply with any such agreements, characters, decrees, rights, privileges or concessions.

25. To undertake and execute any trust/discretion the undertaking whereof may seem desirable and the distribution amongst the beneficiaries, pensioners or other person entitled thereto, of any income capital or annuity, whether periodically or otherwise, and whether in money or specie, in furtherance of any trust, direction, discretion other obligation or permission.

26. To apply for promote and obtain any Acts of parliament, Acts of any State, Legislature, Privileges, monopolies, licenses, concessions, patents or other rights, power or orders from the Indian Government and parliament or from any state Government or any local or other authority in any part of the world and to enable the company to carry out any of its objects into effect or for any other purpose which may seem expedient.

27. To adopt such means of making known the business of the Company as may seem expedient and in particular by advertising in the press, by circulars, by purchase and exhibition of works of art or interest, by publication of books and periodicals and by granting prizes and rewards and donation.

28. To employ officers, clerk, agents, field officers, trainers, auditor, laborers and other servants' brokers or commission agents and to provide for the payment to them of such salaries, commission, brokerage or remunerations as may be found fit, expedient and necessary of desirable.

29. To undertake and execute any trust, the undertaking of which may seem to the company desirable and either gratuitously or otherwise and vest any real or personal property, rights or interests acquired by or belonging to the companies in any person or company on behalf of or for the benefit of the Company and with or without any declared trust in favour of the Company.

30. To subscribe or donate to benevolent, charitable, national or other institutions, or objects of public character or which have any moral or other claims to support or aid by the Company by reason of the locality of its operations or otherwise.

31. To apply the assets of the Company in any way in or towards the establishment, maintenance or extension of any association, institution or fund in any way connected with any particular trade or business or with trade, including any association, institution of fund for the protection of the interest of the masters, owners and employers against loss by bad-debts, strikes, fire accidents or otherwise or for the benefits of any clerks, workmen or others at any time employed by any company or any of its at any time employed by any company or any of its predecessors in business or their families or dependents and to grant gratifications, pensions and allowances and then to contribute to any funds raised by public or local subscription for any purpose whatsoever, subject to the provision of the Act.

32. To make donation to such persons or institution made in such cases and either of cash or any other assets as may be thought directly or indirectly conducive to any of the Company's object or otherwise expedient and particular to remunerate any person or corporation introducing business to this Company, and also to subscribe, contribute or otherwise assist or guarantee money for charitable, scientific, religious or benevolent, national, public or other institutions, objects or for any public or and to establish and support association, institution, objects or for any public or and to establish and support associations, institutions, funds, trusts and convenience for the benefit of the employees or ex employees(including Directors) of the Company or its predecessors in business or the dependents, with such persons and in particular other benefits societies and to grant pensions, allowances, gratuities and bonuses either by way of annual payments or a lump sum and to make payments towards insurance and to form, contribute to provident and benefit funds of or for such persons.

33. To establish and maintain or produce the establishment and maintenance of any contributory or non - contributory pensions or superannuation funds for the benefit of and give or procure the giving of donations, gratitude, pensions, allowances or employments to any persons, allowances or employment or services of the company, or were at any time in the employment or service of the company, or who are or were at any time Directors or officers of the Company or and the wives, widows, families and subsidize and subscribe to any institutions, associations, clubs or funds calculate to be for the benefit of or to advance the interests and to well-being of the company and make payments to or towards the insurance of any such persons as aforesaid.

34. To distribute among the members in specie and property of the Company, or any proceeds of sale or disposal of any property of the company, in the events of its being wound-up subject to the provision of the Companies Act, 2013.

35. To pay out of the funds of the Company all expenses which the company may lawfully pay with respect to the promotion, formation and registration of the company or the issue of its capital, including brokerage and commission for obtaining applications for or taking, placing or underwriting or procuring the underwriting of shares, debentures or other securities of the Company.

36. To appoint, remunerate and indemnify officers, directors, agents and servants of the Company against proceedings, coasts, damages, claims, and demands in respect of anything done by them for and in interest of the Company or any loss, damage or misfortune whatever which shall happen in execution of the duties of their office or in relation thereof.

37. To procure the recognition of the company under the laws or regulation of any other country and to do all acts necessary for carrying on any business or activity.

PRAFULVED [illegible] PVT. LTD. NAGPUR

38. To insure with any other Company, firm or persons against losses, damages and risks of all kinds which may affect the company and to defend for rights in respect properties of the Company as may be deemed necessary from time to time.

4.The liability of the member(s) is limited and this liability is limited to the amount unpaid, if any, on the shares held by them.

5.The share capital of the company is 100,000.00 rupees, divided into,

10,000.00	Equity	shares of	10.00	rupees each	

6 ☒ We, the several persons, whose names and addresses are subscribed, are desirous of being formed into a company in pursuance of this memorandum of association, and we respectively agree to take the number of shares in the capital of the company set against our respective names:

PRAFULVED INFRA PVT. LTD. NAGPUR

S.No.	Subscriber Details					
	Name, Address, Description and Occupation	DIN/PAN/Passport Number	No. of shares taken		DSC	Dated
1	NAME:PRAFUL NARENDRA DESHMUKH S/O:NARENDRA NILKANTH DESHMUKH ADDRESS:501,SHRIKRISHNA RESIDENCY,SHIVAJI NAGAR,DHARAMPETH, NAGPUR-440010 DOB:27/03/1982 OCC:BUSINESS	03039307	9600	Equity	PRAFUL NAREN DRA DESHM UKH	04/01/19
2	NAME:SANJIV VINODKUMAR SAHU S/O:VINODKUMAR KISANKUMAR SAHU ADDRESS:198, SAKET,DHARAMPETH EXTENSION, DHARAMPETH,NAGPUR-440010 DOB:15/03/1961 OCC:BUSINESS	ACPPS5151F	400	Equity	SANJIV VINOD KUMAR SAHU	04/01/19
	Total Shares taken		10,000.00	Equity		

Signed before Me					
Name		Address, Description and Occupation	DIN/PAN/Passport Number/ Membership Number	DSC	Dated
ACA	NAYAN B DEOLASI	FLAT NO.B-1106,RACHANA MEGHSPARSH APT,JATTALA ROAD,BHAMTI,NAGPUR-440036 OCC:CA	180938	NAYAN BHARA TKUMA R DEOLA SI	04/01/19

Modify | Check Form

PRAFULVED INFRA PVT. LTD. NAGPUR

[Pursuant to Schedule I (see Sections 4 and 5) to the Companies Act, 2013)] FORM NO. INC-34

SPICe AOA
(e-Articles of Association)

AOA language (•) English ( ) Hindi

SRN of RUN H39962741 Prefill

*Table F as notified under schedule I of the companies Act, 2013 is applicable to the company

PRAFULVED INFRA PRIVATE LIMITED

A COMPANY LIMITED BY SHARES

		Article No	Description
			Interpretation
☐	☒	I	(1) In these regulations – (a) "the Act" means the Companies Act, 2013, (b) "the seal" means the common seal of the company. (2) Unless the context otherwise requires, words or expressions contained in these regulations shall bear the same meaning as in the Act or any statutory modification thereof in force at the date at which these regulations become binding on the company. PRIVATE COMPANY 1. The Company is a Private Company within the meaning of Section 2(68) of the Companies Act, 2013 and accordingly – (a) The right to transfer shares in the Company is restricted in the manner and to the extent hereinafter appearing. (b) The number of members of the Company (exclusive of persons who are in the employment of the Company, and persons who having been formerly in the employment of the Company, were members of the Company while in the employment and have continued to be members after the employment ceased) shall be limited to two hundred; provided that for the purpose of this definition where two or more persons jointly hold one or more shares in the Company, they shall be treated as a single member, and (c) No invitation shall be issued to the public or subscribe for any securities of the Company.
			Share capital and variation of rights
☐	☐	II 1	Subject to the provisions of the Act and these Articles, the shares in the capital of the company shall be under the control of the Directors who may issue, allot or otherwise dispose of the same or any of them to such persons, in such proportion and on such terms and conditions and either at a premium or at par and at such time as they may from time to time think fit.
☐	☒	2	(i) Every person whose name is entered as a member in the register of members shall be entitled to receive within two months after incorporation, in case of subscribers to the memorandum or after allotment or within one month after the application for the registration of transfer or transmission or within such other period as the conditions of issue shall be provided, – (a) one certificate for all his shares without payment of any charges; or (b) several certificates, each for one or more of his shares, upon payment of twenty rupees for each certificate after the first. (ii) Every certificate shall be under the seal, if any of the company or signed by two directors or by a director and the Company Secretary, wherever the Company has appointed a Company Secretary and shall specify the shares to which it relates and the amount paid-up thereon. (iii) In respect of any share or shares held jointly by several persons, the company shall not be bound to issue more than one certificate, and delivery of a certificate for a share to one of several joint holders shall be sufficient delivery to all such holders
☐	☐		(i) If any share certificate be worn out, defaced, mutilated or torn or if there be no further space on the back for endorsement of transfer, then upon production and surrender thereof to the company, a new certificate may be issued in lieu thereof, and if any certificate is lost or destroyed then upon proof thereof to the satisfaction of the

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		3	company and on execution of such indemnity as the company deem adequate, a new certificate in lieu thereof shall be given. Every certificate under this Article shall be issued on payment of twenty rupees for each certificate. (i) The provisions of Articles (2) and (3) shall mutatis mutandis apply to debentures of the company.
☐	☐	4	Except as required by law, no person shall be recognised by the company as holding any share upon any trust, and the company shall not be bound by, or be compelled in any way to recognise (even when having notice thereof) any equitable, contingent, future or partial interest in any share, or any interest in any fractional part of a share, or (except only as by these regulations or by law otherwise provided) any other rights in respect of any share except an absolute right to the entirety thereof in the registered holder.
☐	☐	5	(i) The company may exercise the powers of paying commissions conferred by sub-section (6) of section 40, provided that the rate per cent or the amount of the commission paid or agreed to be paid shall be disclosed in the manner required by that section and rules made thereunder. (ii) The rate or amount of the commission shall not exceed the rate or amount prescribed in rules made under sub-section (6) of section 40. (iii) The commission may be satisfied by the payment of cash or the allotment of fully or partly paid shares or partly in the one way and partly in the other.
☐	☐	6	(i) If at any time the share capital is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issue of the shares of that class) may, subject to the provisions of section 48, and whether or not the company is being wound up, be varied with the consent in writing of the holders of three-fourths of the issued shares of that class, or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class. (ii) To every such separate meeting, the provisions of these regulations relating to general meetings shall mutatis mutandis apply, but so that the necessary quorum shall be at least two persons holding at least one-third of the issued shares of the class in question.
☐	☐	7	The rights conferred upon the holders of the shares of any class issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking pari passu therewith.
☐	☐	8	Subject to the provisions of section 55, any preference shares may, with the sanction of an ordinary resolution, be issued on the terms that they are to be redeemed on such terms and in such manner as the company before the issue of the shares may, by special resolution, determine.
			Lien
☐	☐	9	(i) The company shall have a first and paramount lien – (a) on every share (not being a fully paid share), for all monies (whether presently payable or not) called, or payable at a fixed time, in respect of that share; and (b) on all shares (not being fully paid shares) standing registered in the name of a single person, for all monies presently payable by him or his estate to the company: Provided that the Board of directors may at any time declare any share to be wholly or in part exempt from the provisions of this clause. (ii) The company's lien, if any, on a share shall extend to all dividends payable and bonuses declared from time to time in respect of such shares.
☐	☐	10	The company may sell, in such manner as the Board thinks fit, any shares on which the company has a lien: Provided that no sale shall be made – (a) unless a sum in respect of which the lien exists is presently payable, or (b) until the expiration of fourteen days after a notice in writing stating and demanding payment of such part of the amount in respect of which the lien exists as is presently payable, has been given to the registered holder for the time being of the share or the person entitled thereto by reason of his death or insolvency.
☐	☐	11	(i) To give effect to any such sale, the Board may authorise some person to transfer the shares sold to the purchaser thereof (ii) The purchaser shall be registered as the holder of the shares comprised in any such transfer. (iii) The purchaser shall not be bound to see to the application of the purchase money, nor shall his title to the shares be affected by any irregularity or invalidity in the proceedings in reference to the sale.
☐	☐	12	(i) The proceeds of the sale shall be received by the company and applied in payment of such part of the amount in respect of which the lien exists as is presently payable. (ii) The residue, if any, shall, subject to a like lien for sums not presently payable as existed upon the shares before the sale, be paid to the person entitled to the shares at the date of the sale.
			Calls on shares

☐	☐	13	(i) The Board may, from time to time, make calls upon the members in respect of any monies unpaid on their shares (whether on account of the nominal value of the shares or by way of premium) and not by the conditions of allotment thereof made payable at fixed times: Provided that no call shall exceed one-fourth of the nominal value of the share or be payable at less than one month from the date fixed for the payment of the last preceding call. (ii) Each member shall, subject to receiving at least fourteen days' notice specifying the time or times and place of payment, pay to the company, at the time or times and place so specified, the amount called on his shares. (iii) A call may be revoked or postponed at the discretion of the Board.
☐	☐	14	A call shall be deemed to have been made at the time when the resolution of the Board authorizing the call was passed and may be required to be paid by instalments.
☐	☐	15	The joint holders of a share shall be jointly and severally liable to pay all calls in respect thereof.
☐	☐	16	(i) If a sum called in respect of a share is not paid before or on the day appointed for payment thereof, the person from whom the sum is due shall pay interest thereon from the day appointed for payment thereof to the time of actual payment at ten per cent per annum or at such lower rate, if any, as the Board may determine. (ii) The Board shall be at liberty to waive payment of any such interest wholly or in part.
☐	☐	17	(i) Any sum which by the terms of issue of a share becomes payable on allotment or at any fixed date, whether on account of the nominal value of the share or by way of premium, shall, for the purposes of these regulations, be deemed to be a call duly made and payable on the date on which by the terms of issue such sum becomes payable. (ii) In case of non-payment of such sum, all the relevant provisions of these regulations as to payment of interest and expenses, forfeiture or otherwise shall apply as if such sum had become payable by virtue of a call duly made and notified.
☐	☐	18	The Board — (a) may, if it thinks fit, receive from any member willing to advance the same, all or any part of the monies uncalled and unpaid upon any shares held by him; and (b) upon all or any of the monies so advanced, may (until the same would, but for such advance, become presently payable) pay interest at such rate not exceeding, unless the company in general meeting shall otherwise direct, twelve per cent per annum, as may be agreed upon between the Board and the member paying the sum in advance.
			Transfer of shares
☐	☐	19	(i) The instrument of transfer of any share in the company shall be executed by or on behalf of both the transferor and transferee. (ii) The transferor shall be deemed to remain a holder of the share until the name of the transferee is entered in the register of members in respect thereof.
☐	☐	20	The Board may, subject to the right of appeal conferred by section 58 decline to register — (a) the transfer of a share, not being a fully paid share, to a person of whom they do not approve; or (b) any transfer of shares on which the company has a lien.
☐	☐	21	The Board may decline to recognise any instrument of transfer unless — (a) the instrument of transfer is in the form as prescribed in rules made under sub-section (1) of section 56; (b) the instrument of transfer is accompanied by the certificate of the shares to which it relates, and such other evidence as the Board may reasonably require to show the right of the transferor to make the transfer; and (c) the instrument of transfer is in respect of only one class of shares.
☐	☐	22	On giving not less than seven days' previous notice in accordance with section 91 and rules made thereunder, the registration of transfers may be suspended at such times and for such periods as the Board may from time to time determine: Provided that such registration shall not be suspended for more than thirty days at any one time or for more than forty-five days in the aggregate in any year.
			Transmission of shares
☐	☐	23	(i) On the death of a member, the survivor or survivors where the member was a joint holder, and his nominee or nominees or legal representatives where he was a sole holder, shall be the only persons recognised by the company as having any title to his interest in the shares. (ii) Nothing in clause (i) shall release the estate of a deceased joint holder from any liability in respect of any share which had been jointly held by him with other persons.

☐	☐	24	(i) Any person becoming entitled to a share in consequence of the death or insolvency of a member may, upon such evidence being produced as may from time to time properly be required by the Board and subject as hereinafter provided, elect, either – (a) to be registered himself as holder of the share; or (b) to make such transfer of the share as the deceased or insolvent member could have made. (ii) The Board shall, in either case, have the same right to decline or suspend registration as it would have had, if the deceased or insolvent member had transferred the share before his death or insolvency.
☐	☐	25	(i) If the person so becoming entitled shall elect to be registered as holder of the share himself, he shall deliver or send to the company a notice in writing signed by him stating that he so elects. (ii) If the person aforesaid shall elect to transfer the share, he shall testify his election by executing a transfer of the share. (iii) All the limitations, restrictions and provisions of these regulations relating to the right to transfer and the registration of transfers of shares shall be applicable to any such notice or transfer as aforesaid as if the death or insolvency of the member had not occurred and the notice or transfer were a transfer signed by that member.
☐	☐	26	A person becoming entitled to a share by reason of the death or insolvency of the holder shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share, except that he shall not, before being registered as a member in respect of the share, be entitled in respect of it to exercise any right conferred by membership in relation to meetings of the company: Provided that the Board may, at any time, give notice requiring any such person to elect either to be registered himself or to transfer the share, and if the notice is not complied with within ninety days, the Board may thereafter withhold payment of all dividends, bonuses or other monies payable in respect of the share, until the requirements of the notice have been complied with.
			Forfeiture of shares
☐	☐	27	If a member fails to pay any call, or instalment of a call, on the day appointed for payment thereof, the Board may, at any time thereafter during such time as any part of the call or instalment remains unpaid, serve a notice on him requiring payment of so much of the call or instalment as is unpaid, together with any interest which may have accrued.
☐	☐	28	The notice aforesaid shall – (a) name a further day (not being earlier than the expiry of fourteen days from the date of service of the notice) on or before which the payment required by the notice is to be made; and (b) state that, in the event of non-payment on or before the day so named, the shares in respect of which the call was made shall be liable to be forfeited.
☐	☐	29	If the requirements of any such notice as aforesaid are not complied with, any share in respect of which the notice has been given may, at any time thereafter, before the payment required by the notice has been made, be forfeited by a resolution of the Board to that effect.
☐	☐	30	(i) A forfeited share may be sold or otherwise disposed of on such terms and in such manner as the Board thinks fit. (ii) At any time before a sale or disposal as aforesaid, the Board may cancel the forfeiture on such terms as it thinks fit.
☐	☐	31	(i) A person whose shares have been forfeited shall cease to be a member in respect of the forfeited shares, but shall, notwithstanding the forfeiture, remain liable to pay to the company all monies which, at the date of forfeiture, were presently payable by him to the company in respect of the shares. (ii) The liability of such person shall cease if and when the company shall have received payment in full of all such monies in respect of the shares.
☐	☐	32	(i) A duly verified declaration in writing that the declarant is a director, the manager or the secretary, of the company, and that a share in the company has been duly forfeited on a date stated in the declaration, shall be conclusive evidence of the facts therein stated as against all persons claiming to be entitled to the share; (ii) The company may receive the consideration, if any, given for the share on any sale or disposal thereof and may execute a transfer of the share in favour of the person to whom the share is sold or disposed of; (iii) The transferee shall thereupon be registered as the holder of the share; and (iv) The transferee shall not be bound to see to the application of the purchase money, if any, nor shall his title

			to the share be affected by any irregularity or invalidity in the proceedings in reference to the forfeiture, sale or disposal of the share
☐	☐	33	The provisions of these regulations as to forfeiture shall apply in the case of nonpayment of any sum which, by the terms of issue of a share, becomes payable at a fixed time, whether on account of the nominal value of the share or by way of premium, as if the same had been payable by virtue of a call duly made and notified.
			Alteration of capital
☐	☐	34	The company may, from time to time, by ordinary resolution increase the share capital by such sum, to be divided into shares of such amount, as may be specified in the resolution.
☐	☐	35	Subject to the provisions of section 61, the company may, by ordinary resolution, -- (a) consolidate and divide all or any of its share capital into shares of larger amount than its existing shares; (b) convert all or any of its fully paid-up shares into stock, and reconvert that stock into fully paid-up shares of any denomination; (c) sub-divide its existing shares or any of them into shares of smaller amount than is fixed by the memorandum; (d) cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person.
☐	☐	36	Where shares are converted into stock, -- (a) the holders of stock may transfer the same or any part thereof in the same manner as, and subject to the same regulations under which, the shares from which the stock arose might before the conversion have been transferred, or as near thereto as circumstances admit: Provided that the Board may, from time to time, fix the minimum amount of stock transferable, so, however, that such minimum shall not exceed the nominal amount of the shares from which the stock arose. (b) the holders of stock shall, according to the amount of stock held by them, have the same rights, privileges and advantages as regards dividends, voting at meetings of the company, and other matters, as if they held the shares from which the stock arose; but no such privilege or advantage (except participation in the dividends and profits of the company and in the assets on winding up) shall be conferred by an amount of stock which would not, if existing in shares, have conferred that privilege or advantage. (c) such of the regulations of the company as are applicable to paid-up shares shall apply to stock and the words "share" and "shareholder" in those regulations shall include "stock" and "stock-holder" respectively.
☐	☐	37	The company may, by special resolution, reduce in any manner and with, and subject to, any incident authorised and consent required by law, -- (a) its share capital; (b) any capital redemption reserve account; or (c) any share premium account.
			Capitalisation of profits
☐	☐	38	(i) The company in general meeting may, upon the recommendation of the Board, resolve -- (a) that it is desirable to capitalise any part of the amount for the time being standing to the credit of any of the company's reserve accounts, or to the credit of the, profit and loss account, or otherwise available for distribution; and (b) that such sum be accordingly set free for distribution in the manner specified in clause (ii) amongst the members who would have been entitled thereto, if distributed by way of dividend and in the same proportions. (ii) The sum aforesaid shall not be paid in cash but shall be applied, subject to the provision contained in clause (iii), either in or towards -- (A) paying up any amounts for the time being unpaid on any shares held by such members respectively; (B) paying up in full, unissued shares of the company to be allotted and distributed, credited as fully paid-up, to and amongst such members in the proportions aforesaid; (C) partly in the way specified in sub-clause (A) and partly in that specified in sub-clause (B); (D) A securities premium account and a capital redemption reserve account may, for the purposes of this regulation, be applied in the paying up of unissued shares to be issued to members of the company as fully paid bonus shares; (E) The Board shall give effect to the resolution passed by the company in pursuance of this regulation.

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☐	☐	39	(i) Whenever such a resolution as aforesaid shall have been passed, the Board shall – (a) make all appropriations and applications of the undivided profits resolved to be capitalised thereby, and all allotments and issues of fully paid shares if any; and (b) generally do all acts and things required to give effect thereto. (ii) The Board shall have power – (a) to make such provisions, by the issue of fractional certificates or by payment in cash or otherwise as it thinks fit, for the case of shares becoming distributable in fractions; and (b) to authorise any person to enter, on behalf of all the members entitled thereto, into an agreement with the company providing for the allotment to them respectively, credited as fully paid-up, of any further shares to which they may be entitled upon such capitalisation, or as the case may require, for the payment by the company on their behalf, by the application thereto of their respective proportions of profits resolved to be capitalised, of the amount or any part of the amounts remaining unpaid on their existing shares; (iii) Any agreement made under such authority shall be effective and binding on such members.
			Buy-back of shares
☐	☐	40	Notwithstanding anything contained in these articles but subject to the provisions of sections 68 to 70 and any other applicable provision of the Act or any other law for the time being in force, the company may purchase its own shares or other specified securities.
			General meetings
☐	☐	41	All general meetings other than annual general meeting shall be called extraordinary general meeting.
☐	☐	42	(i) The Board may, whenever it thinks fit, call an extraordinary general meeting. (ii) If at any time directors capable of acting who are sufficient in number to form a quorum are not within India, any director or any two members of the company may call an extraordinary general meeting in the same manner, as nearly as possible, as that in which such a meeting may be called by the Board.
			Proceedings at general meetings
☐	☐	43	(i) No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business. (ii) Save as otherwise provided herein, the quorum for the general meetings shall be as provided in section 103.
☐	☐	44	The chairperson, if any, of the Board shall preside as Chairperson at every general meeting of the company.
☐	☐	45	If there is no such Chairperson, or if he is not present within fifteen minutes after the time appointed for holding the meeting, or is unwilling to act as chairperson of the meeting, the directors present shall elect one of their members to be Chairperson of the meeting.
☐	☐	46	If at any meeting no director is willing to act as Chairperson or if no director is present within fifteen minutes after the time appointed for holding the meeting, the members present shall choose one of their members to be Chairperson of the meeting.
			Adjournment of meeting
☐	☐	47	(i) The Chairperson may, with the consent of any meeting at which a quorum is present, and shall, if so directed by the meeting, adjourn the meeting from time to time and from place to place. (ii) No business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. (iii) When a meeting is adjourned for thirty days or more, notice of the adjourned meeting shall be given as in the case of an original meeting. (iv) Save as aforesaid, and as provided in section 103 of the Act, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.
			Voting rights

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☐	☐	48	Subject to any rights or restrictions for the time being attached to any class or classes of shares, – (a) on a show of hands, every member present in person shall have one vote; and (b) on a poll, the voting rights of members shall be in proportion to his share in the paid-up equity share capital of the company.
☐	☐	49	A member may exercise his vote at a meeting by electronic means in accordance with section 108 and shall vote only once.
☐	☐	50	(i) In the case of joint holders, the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders. (ii) For this purpose, seniority shall be determined by the order in which the names stand in the register of members.
☐	☐	51	A member of unsound mind, or in respect of whom an order has been made by any court having jurisdiction in lunacy, may vote, whether on a show of hands or on a poll, by his committee or other legal guardian, and any such committee or guardian may, on a poll, vote by proxy.
☐	☐	52	Any business other than that upon which a poll has been demanded may be proceeded with, pending the taking of the poll.
☐	☐	53	No member shall be entitled to vote at any general meeting unless all calls or other sums presently payable by him in respect of shares in the company have been paid
☐	☐	54	(i) No objection shall be raised to the qualification of any voter except at the meeting or adjourned meeting at which the vote objected to is given or tendered, and every vote not disallowed at such meeting shall be valid for all purposes. (ii) Any such objection made in due time shall be referred to the Chairperson of the meeting, whose decision shall be final and conclusive.
			Proxy
☐	☐	55	The instrument appointing a proxy and the power-of-attorney or other authority, if any, under which it is signed or a notarised copy of that power or authority, shall be deposited at the registered office of the company not less than 48 hours before the time for holding the meeting or adjourned meeting at which the person named in the instrument proposes to vote, or, in the case of a poll, not less than 24 hours before the time appointed for the taking of the poll; and in default the instrument of proxy shall not be treated as valid.
☐	☐	56	An instrument appointing a proxy shall be in the form as prescribed in the rules made under section 105
☐	☐	57	A vote given in accordance with the terms of an instrument of proxy shall be valid, notwithstanding the previous death or insanity of the principal or the revocation of the proxy or of the authority under which the proxy was executed, or the transfer of the shares in respect of which the proxy is given: Provided that no intimation in writing of such death, insanity, revocation or transfer shall have been received by the company at its office before the commencement of the meeting or adjourned meeting at which the proxy is used.
			Board of Directors
☐	☒	58	The number of Directors shall not be less than two and not more than fifteen. ii)The Following shall be the First directors of the Company. I. Praful Narendra Deshmukh S/o. Narendra Deshmukh II. Sanjiv Vinodkumar Sahu S/o. Vinodkumar Sahu iii)The number of the directors and the names of the first directors shall be determined in writing by the subscribers of the memorandum or a majority of them
☐	☐	59	(i) The remuneration of the directors shall, in so far as it consists of a monthly payment, be deemed to accrue from day-to-day. (ii) In addition to the remuneration payable to them in pursuance of the Act, the directors may be paid all travelling, hotel and other expenses properly incurred by them – (a) in attending and returning from meetings of the Board of Directors or any committee thereof or general meetings of the company, or (b) in connection with the business of the company.
☐	☐	60	The Board may pay all expenses incurred in getting up and registering the company.
☐	☐	61	The company may exercise the powers conferred on it by section 88 with regard to the keeping of a foreign register, and the Board may (subject to the provisions of that section) make and vary such regulations as it may thinks fit respecting the keeping of any such register.

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☐	☐	62	All cheques, promissory notes, drafts, hundis, bills of exchange and other negotiable instruments, and all receipts for monies paid to the company, shall be signed, drawn, accepted, endorsed, or otherwise executed, as the case may be, by such person and in such manner as the Board shall from time to time by resolution determine
☐	☐	63	Every director present at any meeting of the Board or of a committee thereof shall sign his name in a book to be kept for that purpose.
☐	☐	64	(i) Subject to the provisions of section 149, the Board shall have power at any time, and from time to time, to appoint a person as an additional director, provided the number of the directors and additional directors together shall not at any time exceed the maximum strength fixed for the Board by the articles. (ii) Such person shall hold office only up to the date of the next annual general meeting of the company but shall be eligible for appointment by the company as a director at that meeting subject to the provisions of the Act.
			Proceedings of the Board
☐	☐	65	(i) The Board of Directors may meet for the conduct of business, adjourn and otherwise regulate its meetings, as it thinks fit. (ii) A director may, and the manager or secretary on the requisition of a director shall, at any time, summon a meeting of the Board.
☐	☐	66	(i) Save as otherwise expressly provided in the Act, questions arising at any meeting of the Board shall be decided by a majority of votes. (ii) In case of an equality of votes, the Chairperson of the Board, if any, shall have a second or casting vote.
☐	☐	67	The continuing directors may act notwithstanding any vacancy in the Board; but, if and so long as their number is reduced below the quorum fixed by the Act for a meeting of the Board, the continuing directors or director may act for the purpose of increasing the number of directors to that fixed for the quorum, or of summoning a general meeting of the company, but for no other purpose.
☐	☐	68	(i) The Board may elect a Chairperson of its meetings and determine the period for which he is to hold office. (ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the directors present may choose one of their number to be Chairperson of the meeting.
☐	☐	69	(i) The Board may, subject to the provisions of the Act, delegate any of its powers to committees consisting of such member or members of its body as it thinks fit. (ii) Any committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Board.
☐	☐	70	(i) A committee may elect a Chairperson of its meetings. (ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the members present may choose one of their members to be Chairperson of the meeting.
☐	☐	71	(i) A committee may meet and adjourn as it thinks fit. (ii) Questions arising at any meeting of a committee shall be determined by a majority of votes of the members present, and in case of an equality of votes, the Chairperson shall have a second or casting vote.
☐	☐	72	All acts done in any meeting of the Board or of a committee thereof or by any person acting as a director, shall, notwithstanding that it may be afterwards discovered that there was some defect in the appointment of any one or more of such directors or of any person acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such director or such person had been duly appointed and was qualified to be a director.
☐	☐	73	Save as otherwise expressly provided in the Act, a resolution in writing, signed by all the members of the Board or of a committee thereof, for the time being entitled to receive notice of a meeting of the Board or committee, shall be valid and effective as if it had been passed at a meeting of the Board or committee, duly convened and held.
			Chief Executive Officer, Manager, Company Secretary or Chief Financial Officer
☐	☐	74	Subject to the provisions of the Act,— (i) A chief executive officer, manager, company secretary or chief financial officer may be appointed by the Board for such term, at such remuneration and upon such conditions as it may thinks fit; and any chief executive officer, manager, company secretary or chief financial officer so appointed may be removed by means of a resolution of the Board;

			(ii) A director may be appointed as chief executive officer, manager, company secretary or chief financial officer
☐	☐	75	A provision of the Act or these regulations requiring or authorising a thing to be done by or to a director and chief executive officer, manager, company secretary or chief financial officer shall not be satisfied by its being done by or to the same person acting both as director and as, or in place of, chief executive officer, manager, company secretary or chief financial officer.
			Dividends and Reserve
☐	☐	77	The company in general meeting may declare dividends, but no dividend shall exceed the amount recommended by the Board.
☐	☐	78	Subject to the provisions of section 123, the Board may from time to time pay to the members such interim dividends as appear to it to be justified by the profits of the company.
☐	☐	79	(i) The Board may, before recommending any dividend, set aside out of the profits of the company such sums as it thinks fit as a reserve or reserves which shall, at the discretion of the Board, be applicable for any purpose to which the profits of the company may be properly applied, including provision for meeting contingencies or for equalizing dividends; and pending such application, may, at the like discretion, either be employed in the business of the company or be invested in such investments (other than shares of the company) as the Board may, from time to time, thinks fit. (ii) The Board may also carry forward any profits which it may consider necessary not to divide, without setting them aside as a reserve
☐	☐	80	(i) Subject to the rights of persons, if any, entitled to shares with special rights as to dividends, all dividends shall be declared and paid according to the amounts paid or credited as paid on the shares in respect whereof the dividend is paid, but if and so long as nothing is paid upon any of the shares in the company, dividends may be declared and paid according to the amounts of the shares. (ii) No amount paid or credited as paid on a share in advance of calls shall be treated for the purposes of this regulation as paid on the share. (iii) All dividends shall be apportioned and paid proportionately to the amounts paid or credited as paid on the shares during any portion or portions of the period in respect of which the dividend is paid; but if any share is issued on terms providing that it shall rank for dividend as from a particular date such share shall rank for dividend accordingly.
☐	☐	81	The Board may deduct from any dividend payable to any member all sums of money, if any, presently payable by him to the company on account of calls or otherwise in relation to the shares of the company.
☐	☐	82	(i) Any dividend, interest or other monies payable in cash in respect of shares may be paid by cheque or warrant sent through the post directed to the registered address of the holder or, in the case of joint holders, to the registered address of that one of the joint holders who is first named on the register of members, or to such person and to such address as the holder or joint holders may in writing direct. (ii) Every such cheque or warrant shall be made payable to the order of the person to whom it is sent.
☐	☐	83	Any one of two or more joint holders of a share may give effective receipts for any dividends, bonuses or other monies payable in respect of such share.
☐	☐	84	Notice of any dividend that may have been declared shall be given to the persons entitled to share therein in the manner mentioned in the Act.
☐	☐	85	No dividend shall bear interest against the company.
			Accounts
☐	☐	86	(i) The Board shall from time to time determine whether and to what extent and at what times and places and under what conditions or regulations, the accounts and books of the company, or any of them, shall be open to the inspection of members not being directors. (ii) No member (not being a director) shall have any right of inspecting any account or book or document of the company except as conferred by law or authorised by the Board or by the company in general meeting.
			Winding up
☐	☐		Subject to the provisions of Chapter XX of the Act and rules made thereunder – (i) If the company shall be wound up, the liquidator may, with the sanction of a special resolution of the company and any other sanction required by the Act, divide amongst the members, in specie or kind, the

PRAFULVED ... PVT. LTD. NAGPUR

			whole or any part of the assets of the company, whether they shall consist of property of the same kind or not.
		87	(II) For the purpose aforesaid, the liquidator may set such value as he deems fair upon any property to be divided as aforesaid and may determine how such division shall be carried out as between the members or different classes of members. (III) The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trusts for the benefit of the contributories if he considers necessary, but so that no member shall be compelled to accept any shares or other securities whereon there is any liability.
			Indemnity
☐	☐	88	Every officer of the company shall be indemnified out of the assets of the company against any liability incurred by him in defending any proceedings, whether civil or criminal, in which judgment is given in his favour or in which he is acquitted or in which relief is granted to him by the court or the Tribunal.
☒			Others
			89. BORROWING POWERS I) Subject to section 73 and 179 of the Companies Act. 2013, and Regulations made there under and Directions issued by the RBI the directors may, from time to time, raise or borrow any sums of money for and on behalf of the Company from the member or other persons, companies or banks or they may themselves advance money to the company on such interest as may be approved by the Directors. II) The Directors may, from time to time, secure the payment of such money in such manner and upon such terms and conditions in all respects as they deem fit and in particular by the issue of bonds or debentures or by pledge, mortgage, charge or any other security on allor any properties of the Company (both present and future) including its uncalled capital for the time being. 90. OPERATION OF BANK ACCOUNTS The Directors shall have the power to open bank accounts to sign cheques on behalf of the Company and to operate all banking accounts of the Company and to receive payments, make endorsements, draw and accept negotiable instruments, hundies and bills or may authorize any other person or persons to exercise such powers. 91. AUDIT
		89	(a) The first Auditor of the Company shall be appointed by the Board of Directors within one month from the date of registration of the Company and the Auditors so appointed shall hold office until the conclusion of the first Annual General Meeting. (b) At first annual General Meeting the Company shall appoint an Auditor to hold Office from the conclusion of the Meeting till the conclusion of its sixth Annual General Meeting and thereafter till the conclusion of every six meeting. (c) The remuneration of the Auditor shall be fixed by the Company in the Annual General Meeting or in such manner as the Company in the Annual General Meeting may determine. In case of an Auditor appointed by the Board his remuneration shall be fixed by the Board. 92. SECRECY Subject to the provisions of law of land and the act, every manager, auditor trustee, member of a committee, officer servant, agent accountant or other persons employed in the business of the company shall, if so required by the Board of Directors before entering upon his duties, sign, declaration, pledging himself to observe strict secrecy respecting all transactions of the Company with its customers and the state of account with individuals and in matters relating thereto and shall by such declaration pledge himself, not to reveal any of the matters which may come to his knowledge in the discharge of his duties except when required to do so by the directors or by any court of law and except so far as may be necessary in order to comply with any of the provisions in these presents.

Subscriber Details					
S. NO	Name, Address, Description and Occupation	DIN/PAN/Passport Number	Place	DSC	Dated
1	NAME: PRAFUL NARENDRA DESHMUKH S/O: NARENDRA NILKANTH DESHMUKH ADDRESS: 501,SHRIKRISHNA RESIDENCY,SHIVAJI NAGAR,DHARAMPETH, NAGPUR-440010 DOB: 27/03/1982 OCC: BUSINESS	03039307	NAGPUR		04/01/2019
2	NAME: SANJIV VINODKUMAR SAHU S/O: VINODKUMAR KISANKUMAR SAHU ADDRESS: 198, SAKET,DHARAMPETH EXTENSION, DHARAMPETH,NAGPUR-440010 DOB:15/03/1961 OCC:BUSINESS	ACPPS5151F	NAGPUR		04/01/2019

Signed Before Me						
Name		Address, Description and Occupation	DIN/PAN/ Passport Number/ Membership Number	Place	DSC	Dated
ACA	NAYAN B DEOLASI	FLAT NO B-1106,RACHANA MEGHSPARSH APT,JAITALA ROAD,BHAMTI,NAGPUR-440036 OCC: CA	180938	NAGPUR		04/01/2019

Checked

Modified

SARANG KALE
ADVOCATE
DE/16, Yogiraj-3, Plot No.191, Near Shivaji Nagar Park,
Shivaji Nagar,Nagpur-440010 | 8055647858 | sarangmkale@gmail.com

TO WHOM SO EVER IT MAY CONCERN

As per the Resolution No. 1 dt. 27-2-2023, Mr. Prafull Deshmukh, Director of Prafulved Infra Private Limited is fully empowered and authorized for the execution and signing of the Development Agreement as well as all the documents required for the development of Commercial mall at Plot No. 2-A of Orange City Street Project, Jaiprakash Nagar, Nagpur awarded to Prafulved Infra Private Limited by Nagpur Municipal Corporation, Nagpur.

I am of the opinion that any document signed by Mr. Prafull Deshmukh on behalf of Prafulved Infra Private Limited will be fully enforceable as per the law.

Place : Nagpur
Dated : 27-2-2023

SARANG KALE
ADVOCATE
Reg.No.MAH/6859/2015
DE/16, Yogiraj-3, Plot No.191,
Near Shivaji Nagar Park, Shivaji Nagar,
Nagpur-440010 (M) : 8055647858

SARANG KALE Reg.No. MAH/6859/ 2015 ADVOCATE

PRAFULVED INFRA PVT. LTD. NAGPUR

PRAFULVED INFRA PRIVATE LIMITED
CIN: - U45200MH2019PTC319415
Add F NO 501, Shrikrshna Residency Dharampeth Nagpur Nagpur MH 440010 IN
Email Id: prafuldeshmukh9@gmail.com

CERTIFIED TRUE COPY OF RESOLUTION NO. 1 PASSED AT THE MEETING OF BOARD OF DIRECTORS OF THE COMPANY PRAFULVED INFRA PRIVATE LIMITED HELD AT THE REGISTERED OFFICE OF THE COMPANY ON MONDAY, 27TH FEBRUARY 2023 AT 11:00 A.M.

AUTHORIZATION FOR ENTERING INTO AGREEMENT OF DEVELOPMENT OF MIXED COMMERCIAL MALL

The Chairman informed the Board that there is need to authorize someone to execute the necessary documents for development of mixed commercial mall at Plot No. 2A of Orange City Street Project, Jaiprakash Nagar, Nagpur. He further recommended his own name and after Due discussion following resolution was passed:

"RESOLVED THAT, Mr. Prafull Deshmukh, Director of the Company be and is hereby authorized for the execution and signing of the development of commercial mall at Plot No. 2A of Orange City Street Project, Jaiprakash Nagar, Nagpur."

"RESOLVED FURTHER THAT, Mr. Prafull Deshmukh, Director of the Company be and is hereby authorized to negotiate, finalize and execute the above-mentioned agreements and documents on behalf of the company and do all such acts, matters, deeds and things and to take all steps and do all things and give such directions as may be required, necessary, expedient or desirable for the purpose of giving effect to this resolution."

// CERTIFIED TRUE COPY //
For, Prafulved Infra Private Limited

PRAFULVED INFRA PVT LTD. NAGPUR

Prafull Narendra Deshmukh
Director
DIN: 03039307
Add: Flat No. 501, 14 A,
Shri Krishna Residency,
Khare Town, Dharampeth,
Dahake Lay Out, Shankar Nagar,
Nagpur, Mah, India – 440010

PRAFULVED INFRA PVT LTD. NAGPUR

Rahul Rajendra Deshmukh
Director
DIN: 08056719
Add: Plot No 115 Priti Apartment,
Near Water Tank Laxmi Nagar,
NAGPUR, Maharashtra, India
440022

भारतीय गैर न्यायिक

एक सौ रुपये Rs. 100

रु. 100 ONE HUNDRED RUPEES

भारत INDIA

INDIA NON JUDICIAL

महाराष्ट्र MAHARASHTRA ◑ 2022 ◑

NAGPUR TREASURY

16AA 265778

28 OCT 2022

Stamp Head Clerk / Sr. Clerk

SEAL OF NOTARY * RAKESH N. MOHOD * Dist. Nagpur (M.S. INDIA) Regd No. 15138 * GOVT. OF INDIA *

NOTARIAL REG

ENTRY NO. 14082

DATE 15/11/2022

Appendix A5

Power of Attorney for Lead Member of Consortium

Whereas the Nagpur Municipal Corporation, (the "NMC") has invited bids for the project "Development of NMC Commercial Complex at Plot No 2A of OCSP (the "Project").Whereas, **Prafulved Infra Pvt Ltd** and **Praful Narendra Deshmukh Proprietor** (collectively the "Consortium") being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposaland other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and NMC to do for and on behalf of the Consortium, all acts, deedsand things as may be necessary in connection with the Consortium's bid for the Project and its execution.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

We, **Prafulved Infra Pvt Ltd having our registered office at Ltd 501, Shrikrishna Residency, Shankar Nagar ,Dharampeth ,Nagpur Maharashtra,440010, M/s. Praful Narendra Deshmukh Proprietor, having our registered office at 501, Shrikrishna Residency, Shankar Nagar ,Dharampeth ,Nagpur Maharashtra,440010,** and

PRAFULVED INFRA PVT. LTD. NAGPUR

फक्त प्रतिज्ञापत्रासाठा

1) मुद्रांक विक्री नोंदवही अनुक्रमांक.....26433.....

दिनांक.....31.10.2022.....

2) मुद्रांक विकत घेणाऱ्याचे नाव.....

रहिवासाचा पत्ता व सही.....

.....

.....

3) परवानाधारक मुद्रांक विक्रेत्याची सही व परवाना क्रमांक तसेच मुद्रांक विक्रीचे ठिकाण

31.10.2022

सुबोध एस. ढेंगरे
स्टॅम्प व्हेंडर ला.नं.7196
जिल्हाधिकारी परिसर,
तहसिल कार्यालय, नागपूर
मोबा नं. 9601059

ज्या कारणासाठी ज्यांनी मुद्रांक खरेदी केला त्यांनी त्याच कारणासाठी मुद्रांक खरेदी केल्यापासुन ६ महिन्यात वापरणे बंधनकारक आहे

SULVED INFRA PVT. LTD. NAGPUR

DEFACED

SEAL OF NOT

(hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorise Prafulved Infra Pvt Ltd, having its registered office at at 501, Shrikrishna Residency, Shankar Nagar ,Dharampeth ,Nagpur Maharashtra,440010 , being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney") and hereby irrevocably authorise the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the Concession/ Contract, during the execution of the Project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, accept the Letter of Award, participate in bidders' and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with NMC, and/ or any

other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium's bid for the Project and/ or upon award thereof till the Development Agreementis entered into with NMC.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS 14th DAY OF November 2022.

Nagpur INDIA Regd.No. 15138 GOVT. OF INDIA

For

Director
(Prafulved Infra Pvt Ltd.
501, Shrikrishna Residency,
Shankar Nagar ,Dharampeth ,
Nagpur Maharashtra,440010)

PRAFULVED INFRA PVT. LTD. NAGPUR


SEAL OF NOTARY
RAKESH N. MOHO

For

Proprietor
Praful Narendra Deshmukh
501, Shrikrishna Residency,
Shankar Nagar ,Dharampeth ,
Nagpur Maharashtra,440010)

(Executants)

Witnesses:

1.Akash Ashok Rangari

2.Nilesh Umesh Pandit

SEAL OF NOTARY
RAKESH N. MOHOD
Dist. Nagpur
(M.S. INDIA)
Regd No.
15138
GOVT. OF INDIA

ATTESTED
RAKESH N. MOHOD
NOTARY
NAGPUR DIST. (M.S.) INDIA

CANCELLED

NOTARIAL NOTARIAL NOTARIAL NOTARIAL NOTARIAL

AUTHORIZED SIGNATORY

PRAFULVED INFRA PVT. LTD.
ENGINEERS | BUILDERS | CONTRACTORS
CIN NO.:-U45200MH2019PTC319415

Certified copy of the Resolution passed at the meeting of the director of the board on 10th February 2023 at the registered office of the company at 501. Shri Krishna residency, Khare town, Dharampeth, Nagpur 440010.

RESOLVED THAT Mr. Praful Narendra Deshmukh, Director of Prafulved Infra Private Limited, be and is hereby authorized to sign and execute with any party, person or relevant authority as may be required, all such contract/agreements/any other documents on behalf of the company, in relation to NMC Commercial Complex Project on Plot No. 2A of Orange City Street Project of NMC Jaiprakash Nagar, Nagpur. For the performance of the business of the company as may be necessary or requisite on behalf of the Company, and any modification agreed to therein and to do all such things as may be required in connection therewith and that such contract/ or agreements shall be binding on the company."

For Prafulved Infra Private Limited

(Director) **(Director)**

14 - A, Shri Krishna Residency, Khare Town, Dharampeth, Nagpur-440 010
Mob.: 9604078999 | e-mail: prafuldeshmukh9@gmail.com

भारतीय गैर न्यायिक

एक सौ रुपये Rs. 100

रु. 100 ONE HUNDRED RUPEES

भारत INDIA

INDIA NON JUDICIAL

महाराष्ट्र MAHARASHTRA ◑ 2022 ◑ 16AA 265777

NOTARIAL REG
ENTRY NO. 14083
DATE 15/11/2022

26 OCT 2022
Stamp Head Clerk / Sr. Clerk

Appendix A4

Power of Attorney for signing of Application

Know all men by these presents, We, **Prafulved Infra Pvt Ltd** do hereby irrevocablyconstitute, nominate, appoint and authorise **Mr. Praful Narendra Deshmukh**, son of **Narendra Deshmukh** and presently residing at **501,Shrikrishna Residency, Shankar Nagar ,Dharampeth ,Nagpur Maharashtra,440010** , who is presently employed with us/ the Lead Member of our Consortium and holding the position of Director, as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our bid forthe Project – Development of NMC Commercial Complex at Plot No 2A of OCSP, being developed by Nagpur Municipal Corporation ("NMC") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders' and other conferences and providing information / responses to NMC, representing us in all matters before NMC, signing and execution of all contracts including the Development agreement and undertakings consequent to acceptance of our bid, and generally dealing with NMC in all matters in connection with or relating to or arising out of our bid for the said Project and/or upon award thereof to us and/or till the entering into of the Development agreement with NMC.

PRAFULVED INFRA PVT. LTD. NAGPUR

GOVT. OF INDIA NOTARY AKESH N. MOHOD Nagpur (M.S. INDIA) Regd.No. 15138

104

फक्त प्रतिज्ञापत्रासाठी

1) मुद्रांक विक्री नोंदवही अनुक्रमांक.....26432

दिनांक.....31-10-2022

2) मुद्रांक विकत घेणाऱ्याचे नाव.....

रहिवासाचा पत्ता व सही.....प्रफुल्लवेद इन्फ्रा प्रा. लि. शंकरनगर नाव

.....

[illegible] प्रफुल्ल [illegible]

3) परवानाधारक मुद्रांक विक्रेत्याची सही व परवाना क्रमांक तसेच मुद्रांक विक्रीचे ठिकाण

बँक 31-10-2022

सुबोध एस. केंगरे
स्टॅम्प वेंडर ला.नं.7/96
जिल्हाधिकारी परिसर,
तहसिल - अर्थालय, नागपूर
कोड नं. -601059

ज्या कारणासाठी ज्यांनी मुद्रांक खरेदी केला त्यांनी त्याच कारणासाठी मुद्रांक खरेदी केल्यापासुन ६ महिण्यात वापरणे बंधनकारक आहे

PRAFULVED INFRA PVT. LTD. NAGPUR

NC-TARIAL REG

SEAL OF NC
RAKESH N.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, Prafulved Infra Pvt Ltd, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON 14th DAY OF November 2022

For

(Director
Prafulved Infra Pvt Ltd501, Shrikrishna Residency, Shankar Nagar ,Dharampeth ,Nagpur Maharashtra,440010)

Witnesses:

1.Akash Ashok Rangari

2.Nilesh Umesh Pandit

Accepted **Notarised**

(Signature, name, designation and address of the Attorney)

SEAL OF NOTARY RAKESH N. MOHOD Dist Nagpur (M S) INDIA Regd No 15138 GOVT OF INDIA

ATTESTED 15/11/2022 RAKESH N. MOHOD NOTARY NAGPUR (M.S.) INDIA

SEAL OF NOTARY Rakesh Nanasaheb Mohod NAGPUR 15138

PRAFULVED INFRA PVT. LTD. NAGPUR

CANCELLED CANCELLED

STAMP DUTY

महाराष्ट्र शासन
GOVERNMENT OF MAHARASHTRA
ई-सुरक्षित बँक व कोषागार पावती
e-SECURED BANK & TREASURY RECEIPT (e-SBTR)

19503686143946

Bank/Branch: IBKL - 6910596/Nagpur Dharam Peth
Pmt Txn id : 723389567
Pmt DtTime : 27-FEB-2023@16:45:35
ChallanIdNo: 69103332023022752301
District : 4601-NAGPUR

Stationery No: 19503686143946
Print DtTime : 27-FEB-2023 16:47:44
GRAS GRN : MH015990039202223S
Office Name : IGR383-NGP1_HQR SUB REG
GRN Date : 27-Feb-2023@16:45:36

StDuty Schm: 0030046401-75/STAMP DUTY
StDuty Amt : R 5,15,200/- (Rs Five, One Five, Two Zero Zero only)

RgnFee Schm: 0030063301-70/Registration Fees
RgnFee Amt : R 0/- (Rs Zero only)

Article : 5(g-a)(ii)--Development Agreement
Prop Mvblty: Immovable
Consideration: R 51,51,30,000/-
Prop Descr : Plot No 2 A,Orange City,Street Project,,Mouza Somalwada,CTS NO 615, Nagpur,Maharashtra,440025
Duty Payer: PAN-AAKCP2972M,Prafulved Infra Private Limited

Other Party: TAN-NGPA02945F,Nagpur Municipal Corporation

Bank officiall Name & Signature

SHWETA KUMARI
Assistant Manager
134087

Bank official2 Name & Signature

PAWAN GAIKWAD
Assistant Manager
EMP. CODE-533211
IDBI BANK LTD.

IDBI BANK LTD. (543) Dharampeth, Nagpur

Space for customer/ write below this line --- ---

e-SBTR IS VALID UPTO SIX MONTHS FROM THE DATE OF PAYMENT.

CONFIRMATION FOR REPRESENTATION AND WARRANTIES

PRAFULVED INFRA PVT. LTD.
ENGINEERS | BUILDERS | CONTRACTORS
CIN NO.:-U45200MH2019PTC319415

To,
Executive Engineer (Projects)
Nagpur Municipal Corporation,
Nagpur-440001.

Subject-Confirmation of article 8 representation and warranties as specified in draft development agreement.

Sir,

We hereby confirm to the article 8 Representation & warranties as specified in draft development agreement uploaded for bidding of development of NMC commercial complex project on plot no 2Aof orange city street project of NMC at Nagpur on design ,built, finance ,operate and sell mode.

Yours's Faithfully

PRAFULVED INFRA PVT LTD. NAGPUR

(Prafull Deshmukh)

(Director Prafulved Infra Pvt Ltd)

PRAFULVED INFRA PVT LTD. NAGPUR

(Rahul Deshmukh)

(Director Prafulved Infra Pvt Ltd)

14 - A, Shri Krishna Residency, Khare Town, Dharampeth, Nagpur-440 010
Mob.: 9604078999 | e-mail: prafuldeshmukh9@gmail.com

Volume I:

REQUEST FOR PROPOSAL (RFP) DOCUMENT FOR DEVELOPMENT OF NMC COMMERCIAL COMPLEX PROJECT ON PLOT NO. 2A OF ORANGE CITY STREET PROJECT OF NMC AT NAGPUR ON DESIGN, BUILD, FINANCE, MAINTAIN and SALE MODE.

Project Proponent:

NAGPUR
MUNICIPAL CORPORATION

Issued by:
Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg, Nagpur.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com

PRAFULVED INFRA PVT. LTD. NAGPUR

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NOTICE INVITING REQUEST FOR PROPOSAL

Nagpur is administered by the Nagpur Municipal Corporation (NMC), which is a democratically elected civic governing body.

NMC has decided to develop the Orange City Street Project at Nagpur on the stretch starting from Wardha Road up to Jaitala, Nagpur.

Currently NMC proposes to develop, a Commercial Complex at Plot No. 2A a component of the Orange City Street Project along the Khamla Road.

The said Plot 2A is adjacent to the under construction NMC Orange City Mall on Plot No 1.

NMC plans to implement this Project on Public Private Partnership (PPP) mode through the Design-Build-Finance-Maintain and Sale (DBFMS) model wherein the prospective developer shall undertake the Designing, Financing, Construction, Maintenance and Sales of the entire project.

The proposed plot is having area of 3363 sq. mtr of which the FSI permitted by the Town Planning Department is 4.00 as per the UDCPR 2020 and the restriction on height as approved by AAI is 42.05 meters which generally allows a building above existing ground level.

The developer has to develop the project within the above mentioned framework.

The prospective developer has to undertake its own designing& planning for the Project as per the prevalent development control rules and guidelines.

The prospective developer should plan the Project in synchronization with the conceptual idea of the entire Orange City Street Project and the elevational characters planned by NMC for the Project should be maintained by the prospective developer to maintain the similarity for the entire Orange City Street Project.

The characteristics of the Elevational Drawings of the developers planning should be commensurate with the Elevational Drawings provided in the Volume III of the bidding documents. This should be analyzed by the prospective bidders prior to submission of their application.

For further details please contact:

Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg,
Nagpur, Maharashtra.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com



Google Location of the Project Site



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Schedule of Bidding Process

Sr. No.	Event Description	Date
1.	RFP Sale	6.10.2022 to 21.11.2022 till 5 p.m.
2.	Last Date of submission of written queries by prospective bidders	20.10.2022 till 4 p.m.
3.	Pre-Bid Meeting	20.10.2022 at 4 p.m.
4.	NMC's response to written queries raised and issuance of corrigendum/addenda, if any.	27.10.2022
5.	RFP Application Submission Date	21.11.2022 till 5 p.m.
6.	RFP Application Opening Date	24.11.2022
7.	Presentation by Technically Qualified Bidders	1.12.2022
8.	Financial Proposal Opening	Shall be intimated to the technically qualified bidders

Proposal Data Sheet

Sr. No.	Key Information	Details
1.	Name of the Project	Development of the Commercial Complex on DBFMS model at Plot No. 2A of the Orange City Street Project along the Khamla Road
2.	Location of the Project	Plot No 2A, Orange City Street Project along the Khamla Road, Dist-Nagpur, Maharashtra.
3.	Name of the Authority	Nagpur Municipal Corporation
4.	Earnest Money Deposit /Bid Security	Rs 20, 00, 000/- (Rupees Twenty Lacs only).
5.	Tender Fees (Non-Refundable)	Rs 20,000/- (Rupees Twenty Thousand only) plus applicable GST
6.	Bidding Parameter	Maximum Lump-sum Financial Offer to be shared with NMC against the sales revenue earnings from the various components of the Project as spelt out elsewhere in this document and the Development Agreement.
7.	Performance Security	Rs 3.20 Crores (Three Crores and Twenty Lacs only).
8.	Contact Person	Executive Engineer (Project), NMC.

DISCLAIMER

The information contained in this Request for Proposal document (the "RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the Authority or any of their employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is neither an offer nor invitation by the Authority to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in preparing their proposal pursuant to this RFP (the "Bid"). This RFP includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law.

The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Authority, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of

anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Bidding Process.

The Authority also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP.

The Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that the Authority is bound to select a Bidder or to appoint the Agency, as the case may be, for the Project and the Authority reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and the Authority shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.



1. Glossary

S.N.	Heading	Reference
1.	Associate	As defined in Clause 6.1.1 c
2.	ADTP	Town Planning Department of NMC
3.	Bid Security	As per Proposal Data Sheet
4.	Company	means the company acting as the Developer under the Development Agreement
5.	Developer	shall mean the selected bidder that executes the Development Agreement with NMC
6.	Development Agreement	Volume II of the Bidding Documents
7.	Conflict of Interest	As defined in Clause 6.1.1c
8.	Consortium	As defined in Clause 6.1.1a
9.	DBFMS	Design, Build, Finance, Maintain and Sales
10.	Financial Capacity	As defined in Clause 6.4.1(b)
11.	Financing Documents	The set of documents constituting the agreement between the Developer and the Lender for the purpose of providing debt financing to this Project
12.	Government:	Govt. of India or Govt. Of Maharashtra
13.	H1Bidder	As defined in Clause 7.3.1
14.	Lead Member	As defined in Clause 6.2.2 c
15.	LOA	Letter of Award
16.	Member	Member of a Consortium
17.	MSL	Mean Sea Level
18.	NOC	No Objection Certificate
19.	NMC	Nagpur Municipal Corporation
20.	Net Worth	As defined in Clause 6.5.1
21.	Other Background Documents	This includes the UDCPR & its updations, State Government Gazette Notifications and any other documents if subsequently issued during the Bidding Process
22.	Performance Security	As defined in the Volume II Development Agreement
23.	PPP	Public Private Partnership
24.	Project	means development of the Commercial Complex through DBFMS
25.	Re. or Rs. or INR	Indian Rupee
26.	RFP	Request for Proposal
27.	Similar Projects	As defined in Clause 6.4.2
28.	Technical Capacity	As defined in Clause 6.4.1 (a)

The words and expressions beginning with capital letters and defined in this document shall, unless repugnant to the context, have the meaning ascribed thereto herein.

3. INTRODUCTION

3.1 Background

3.1.1 About Nagpur City:

a. Nagpur is the third largest city and the winter capital of the state of Maharashtra.

It is the 13th largest city in India by population and according to an Oxford's Economics Report; Nagpur is projected to be the fifth fastest growing city in the world from 2019 to 2035 with an average growth of 8.41%.

It has been proposed as one of the Smart Cities in Maharashtra and is one of the top ten cities in India in Smart City Project execution.

Nagpur also known as the "Orange City" has officially become the greenest, safest and technologically developed city in the Maharashtra state.

As per the 2011 census, Nagpur municipality has a population of 2,405,665. The total population constitutes 1,225,405 males and 1,180,270 females.

Nagpur is an emerging metropolis. Nagpur's nominal GDP was estimated to be around Rs. 1,406,860 million in 2019–20, making it the largest economic center in entire central India.

Nagpur district has a per-capita GDP of Rs. 270,617 as of 2019-20 financial year, being the highest in the central India

b. Nagpur is administered by the Nagpur Municipal Corporation (NMC), which is a democratically elected civic governing body.

c. NMC has decided to develop the Orange City Street Project at Nagpur on the stretch of starting from Wardha Road up to Jaitala, Nagpur.
The total area under development is approx. 30.36 Hectares. The project is divided into 24 plots having different components covering commercial, medical, housing, education projects.

d. Currently NMC proposes to develop a Commercial Complex at Plot No. 2A, a component of the Orange City Street Project along the Khamla Road.

e. The said Plot 2A is adjacent to the under construction NMC Orange City Mall on Plot No 1.

f. This Project will help the people of the region i.e. the existing citizens of the region in the vicinity to have access to world class yet affordable shopping, office space, dining and recreation experience in the commercial heart of the city.

g. NMC plans to implement the Project on Public Private Partnership (PPP) mode through the Design-Build-Finance-Maintain and Sale (DBFMS) model wherein the prospective developer shall undertake the Designing, Financing, Construction, Maintenance and Sales of the various components of the project.

h. NMC has appointed M/s Architect Hafeez Contractor as the Project Management Consultant (PMC) for the monitoring of the construction of the entire Orange Street Project including this Commercial Complex on Plot No. 2A.

i. The prospective Bidder shall be selected under a Single Stage Two Envelope bidding process and a technically qualified bidder offering Maximum Lump-sum Financial Offer to NMC shall be the selected bidder.

j. NMC has, thus, decided to carry out the Domestic Competitive Bidding Process for selection of an entity to whom the Project may be awarded.

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3.1.2 Purpose of this Bidding Process:

The selected bidder (**"Developer"**) shall be responsible for the, designing, engineering, financing, procurement, construction, maintenance, marketing and sales of the various Project components under and in accordance with the provisions of a long-term joint development agreement (the **"Development Agreement"**) to be entered into between the Developer and the NMC in the form provided by NMC as part of the Bidding Documents provided hereto.

3.1.3 Constitution of Bidder:

A prospective bidder can be a Company under Companies Act, 1956/2013 or Partnership Firm formed under the Partnership Act 1932 or an LLP under the LLP Act 2008 or a Proprietorship firm registered under the relevant Act in India or a Government-owned entity.



4. SCOPE OF WORK

4.1 Key Features of the Project

a. The Developer shall construct the Commercial Complex on Plot No 2A of OCSP on a total plot area of 3363 square meters within a period of 30 (Thirty) months.

b. The Developer shall have the development and sales rights on the Project for a period of 84 (eighty four) months including the construction period of 30 (thirty) months from the date of signing of the Development Agreement. For any extension of time beyond the stipulated 84 months, the decision shall be solely with NMC and the decision of NMC in this regard shall be final and binding without incurring any cost or liabilities on NMC.

c. In the event that completion of Project construction does not occur on or before a period of Thirty Months from the Commencement Date for any reasons attributable to Developer, NMC may allow a grace period of maximum 60 days.
After completion of this grace period of 60 days, the matter shall be presented to the Empowered Committee of NMC and the decision regarding continuation/termination/payment of penalty by the Developer for such delay, shall be taken by the Empowered Committee after evaluating the reason/s for such delay.

d. Commencement Date shall be the date of the Commencement Order issued by NMC. The Commencement Order shall be issued within one month from the Effective Date subject to terms of the Draft Development Agreement.

e. The construction cost as estimated by NMC and its PMC is approx. Rs. 64 Crores (Rupees Sixty Four Crores). The Project Cost is inclusive of lifts and all other peripheral development in and within the proposed land parcel. The Project Cost is only indicative as determined by NMC. The Project Cost to be adopted shall be as per the Financing Agreements and approved DPR. The enforceability of the DPR shall be in accordance of the UDCPR 2020. The Developer shall submit the Detailed Project Report within 75 days of Effective Date based on the in-principal approval to the drawings from ADTP.



f. Post signing of the Development Agreement with NMC and on issue of Commencement Order from NMC, the Developer can market the project and undertake the Sales of the various components of the said Project.

g. The ownership of the project land shall vest with NMC till 100% realization of the NMC Revenue Share from sales consideration from the constructed project.

h. The buyer of the property in the proposed development shall be entitled to an undivided share of the Project land in proportion to the area of the Project component purchased by it and this would be incorporated in the Sale Deed/ Deed of Apartment or any such ownership document that is permitted as per law will be registered by NMC in the name of the buyer through the Developer. The Developer shall act as a facilitator to register the document with Registrar on behalf of NMC. However the undivided share is subjected to the change/modification till the completion of the entire Project is declared by NMC.

i. The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement.

j. The Sale Agreement with prospective buyers shall be a tripartite agreement with NMC, Developer and the buyer as the three parties. NMC shall nominate its authorized signatory for the purpose of registration of the tri-party agreement immediately on intimation by the Developer.

k. Ownership document to be signed by NMC with the prospective buyers can be a Sale Deed or Deed of Apartment or any other legal document which transfers the ownership of the project component to the buyer and all such documents as recognised by the prevailing law and depending on the legal implications of the same at the time of execution.

l. The Developer can facilitate for signing of either Sale Deed or Deed of Apartment depending on its profitability but at no time shall such signing is against any prevailing law and NMC shall bear no liability in this regard.

m. The Developer should be able to generate revenues, based on its independent risk analysis, from the commercial sale of the various components of the Commercial Complex in compliance with the applicable law.

n. The Developer would have the flexibility to develop and sell the various components of the Commercial Complex after necessary approval from NMC.

o. In case the Developer intends to lease out the facility/any portion of it to any third party, then the Developer shall need to purchase and get such portion of the facility registered in its own name by appropriate lawful mechanism before leasing out the given space. Deed of Apartment and/or any such legal document can be executed by the Developer in its own favour after payment of requisite NMC Revenue Share from such sales as if it has been sold at commercial rates.

p. The Developer cannot mortgage the Project land under any circumstances. The Project land shall be in the name of NMC till 100% payment of the NMC Revenue Share by the Developer and till the Project development is completed in all respects.

4.2 Detailed Scope of Work of Developer:

a. The prospective Developer should plan the Project in synchronization with the conceptual idea of the entire Orange City Street Project. The front Arcade with commercial shops on the Ground and First floor and building elevation as per the Orange City Street theme should be strictly adhered to at all times. Any change is use proposed by the Developer after Ground and First floor should be permissible as per the UDCPR and as defined in the Development Agreement.

b. Design the project in line with the elevational drawings issued by NMC in Volume III of the bidding documents.

c. Appoint its architect for the project.

d. In case the prospective developer plans to develop the project beyond the FSI/P-Line Area and height utilization allowed as specified by NMC in the draft Development Agreement and utilizes additional FSI/P-Line Area and height, then such revised drawings shall be submitted and approved by NMC.

e. Such additional utilization shall constitute Additional Development as spelt out in Development Agreement.

f. The Development Charges during the sanctioning of the Building Plan payable to Town Planning Department shall not be applicable for the project, this being a NMC project.

g. The limits of the Building Plan sanction i.e. P-Line Area and height of the project shall be governed by the prevailing UDCPR and the provisions in the Development Agreement. Subsequent revisions within the same P-Line Area and height shall not attract additional Development Charges.

h. In case where the FSI/P-Line Area and height is enhanced, then for the calculation of development charges & NMC revenue share from such Additional Development, it shall be put up to the appropriate authority of NMC for final decision.

i. Undertake the Sales of the various components of the Commercial Complex and demand, collect, retain and appropriate sales revenues.

j. Disburse to NMC the Upfront Premium and the quoted Financial Offer as per the payment schedule described in the Development Agreement.

k. Deploy adequate number of Staff/O&M agency for proper operation and maintenance of the Commercial Complex till the entire Project is handed over to the buyers' and the society is formed;

l. To obtain the Environment Clearance, if applicable under law from the competent authority. In case of any delay in obtaining the Environment Clearance by the Developer, the construction period of 30 months shall not be extended under any circumstances. The prospective developer has to manage and balance between the construction period and period required for Environment Clearance within this 30 months only.

m. In case of revision of the drawings, obtain the approval of the Town Planning Department, NMC and obtain the revised Fire NOC and pay the necessary revision charges as applicable.

n. In case of revision of the drawings obtain the revised Airport Authority of India NOC and pay the necessary revision charges as applicable.

o. In case the Developer intends to include Theatre/Multiplex, Hotels and Restaurants within the Project Facilities, then obtaining the necessary applicable Statutory Clearances as well as approval from

Town Planning/Health Department, NMC and other authorities as applicable under the law, shall be the sole responsibility of the Developer and NMC shall incur no liability for the same.

p. For any relaxations sought by the Developer with regard to the preparation and approval of the Construction Drawings as per the prevailing UDCPR 2020 and Town Planning Department of NMC, the decision of the Commissioner shall be final and binding. All relevant charges for obtaining such relaxations shall be borne by the Developer and NMC shall incur no liability in this regard. If any relaxation from the norms of the UDCPR 2020 / Town Planning Department is allowed and this enhances the revenue earning of the Developer, such benefits of the enhanced revenue shall be shared equally with NMC, failing which such relaxations would be cancelled.

q. Make, or cause to be made, necessary applications to the relevant Government Agency with such particulars and details as may be required for obtaining Applicable Permits, comply with all applicable requirements, guidelines etc. laid down under the Applicable Laws and and obtain and keep in force and effect such Applicable Permits in conformity with the Applicable Laws;

r. To undertake all activities for conforming to RERA compliance including maintaining the books of accounts and compulsory registration with MAHARERA.

s. Would be responsible for attending and rectifying any Project/Construction related grievances of the buyers' as per RERA Act 2016.

t. Plan the proposed facility as a "Green Building" with smart features and the bidder shall get it certified from relevant Indian authorities' viz. IGBC/ GRIHA/ASSOCHAM etc and maintain the same during the Development and Sales period.

u. Make provision for generation of power through use of Solar panels should be planned in the Facility.

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v. Parking: It is desired by NMC to have ample parking at the facility and hence it should be the endeavor of the Developer to have ample parking facility for the Project subject to the following:

i. The planning for the parking at the Project Site shall be strictly in consonance with the UDCPR 2020 (as modified) on the date of approval of the plans.

ii. As per the present planning, parking is proposed on the lower & upper basements of the proposed building. It should be the endeavour of the Developer to maximize the parking area.

iii. NMC desires that the Developer should plan for development of mechanical parking facilities at the Project Site.

iv. The Operation & Maintenance of the parking area shall be with the Developer from the issuance of the Occupancy/Part Occupancy Certificate till complete handover to the buyers/society formed by the buyers'.

v. The Developer can charge fees/O&M charges from the buyers/society for such operation & maintenance of the parking till handover to the society formed by the buyers. The Developer shall manage its cost for such O&M from its own resources/charges or contribution from the buyers and NMC shall in no way be responsible for any such O&M responsibilities and costs.

w. Advertisement:

i. The Developer can identify and enlist the locations & spaces suitable for display of commercial advertisements in consonance with the present planning and in consultation with M/s Architect Hafeez Contractor.

ii. The location & spaces shall be compliant with rules and regulations prevalent at that point of time. The area and list shall be submitted and got approved from the competent authority and shall be notified to NMC.

iii. The right to lease and earn Advertisement Revenue from the Project shall be with the Developer from the issuance of the Occupancy/Part Occupancy Certificate till completion of the Development and Sales period and after this it shall be transferred to the society formed by the buyers.

x. The sole responsibility for the payment of the maintenance charges for the Commercial Complex facility shall be with the Developer from the issuance of the Occupancy/Part Occupancy Certificate till complete handover to the buyers/society formed by the buyers'. NMC shall not be liable to pay any maintenance charges for the Commercial Complex facility including the Common Areas.

y. The Developer shall be responsible for the marketing and sales of the Project facility.

z. The Successful Bidder may undertake Construction Works by itself or through a notified Contractor possessing requisite technical, financial and managerial expertise / capability; but in either case, the Successful Bidder shall remain solely responsible to meet specifications mentioned under the Development agreement.

aa. The Development Agreement sets forth the detailed terms and conditions for grant of the Project to the Developer, including the scope of the Developer's obligation.

bb. The Successful Bidder shall perform and fulfill all other obligations mentioned in the Development Agreement and to undertake all other activities, works and things incidental thereto or necessary for the performance.



4.3 Guidelines for development at the Site:

a. Applicable UDCPR 2020 for the Project Site on the date of submission of plans to the authority.

b. Floor Space Index (FSI) limits including any enhancements;

c. Obtaining and adopting the statutory requirements including but not limited to Fire, Health, Environment, as required.

d. Obtain approval of the designs from the ADTP, NMC, in case of any revisions in its Project Designs already approved by ADTP, NMC, it shall be the responsibility of the Developer to get such revised drawings approved from the Town Planning department of NMC.

e. Seek NMC approval for the Project DPR and its revisions/ up-dations, if any.

f. Any other development with the prior written approval of NMC.

g. Technical Specifications shall be minimum as per the Volume III of this bidding document and when not specifically mentioned then the prevailing specifications of PWD, Government of Maharashtra, CPWD, Government of India and Standard Codes such as Bureau of Indian Standards, other Indian Standards and good engineering practices shall prevail.

h. Intimation of every sale shall be made to NMC by the developer immediately on finalization of terms with buyer and before receipt of first down payment from the Purchaser.

i. The Developer shall appoint a facility management firm with the approval from NMC for proper operation and maintenance of the Commercial Complex from the date of Occupancy/Part Occupancy Certificate till the complete Project is handed over to the buyers' and a society is formed.



4.4 Exclusions:

a. The development mix shall not include educational institutions, industrial set-ups and warehouses.

b. The Successful Bidder cannot develop and market the Project or a portion of the Project as plotted development.



5. Description of the Bidding Process.

5.1 Bidding through E-Tendering System:

a. Bid shall be submitted electronically /online through the Procurement Portal website www.mahatenders.gov.in. Detailed guidelines for viewing bids and submission of online bids are given on the website. The Invitation for Bids under NMC is published on this website. Any citizen or prospective bidder can logon to this website and view the Invitation for Bids and can view the details of works for which bids are invited. In order to submit their Bids through the Procurement Portal, Bidders are required to be enrolled/ registered on the Procurement Portal, for which purpose they are required to have enrolment/registration in the website and should have a valid digital signature certificate in the form of smart card/e- token obtained from any authorized certifying agencies. For detail information of smart card /e-token bidders shall visit link <Information About DSC> at right hand corner of Procurement Portal website www.mahatenders.gov.in.

b. The bidder should register on the website www.mahatenders.gov.in using the relevant option available. Then the Digital Signature registration has to be done with the e-token, after logging into the site. After this, the bidder can login the site through the secured login by entering the password of the e-token and the user id/ password chosen during registration.

   After getting all the Volumes of the Bidding Documents, the Bidder should go through them carefully and then submit the documents as required; otherwise, its bid will be rejected.

   The completed bid comprising of all requisite documents, should be uploaded on the website given above through e-tendering along with scanned copies of requisite certificates as are mentioned in different sections in this bidding document.

c. The "Bidding Documents" include this RFP, Draft Development Agreement and the Design Proposal. The aforesaid documents and any corrigenda/addenda issued subsequent to this RFP Document will also form a part of the Bidding Documents.

d. The bid application is to be submitted online in Two bid system i.e. 'A' containing Technical bid and 'B' containing Financial bid, the Financial bid shall be opened only if necessary documents are found in technical bid and after the Technical evaluation is completed.

The due date of opening of financial bid shall be communicated to the prospective Bidders or their authorized agents.

e. The Bidding Documents will be available online at **www.mahatenders.gov.in**("Procurement Portal"). To participate in the Bidding, Bidders will be required to pay a **non-refundable fee of Rs. 20,000/- (Rupees Twenty Thousand Only) plus applicable GST** as the fees toward the cost of the Bidding Documents through the online payment gateway available on the Electronic Tendering System. For the list of options for making online payments, the bidders are advised to visit the link E-Payment Options available on the web site mahatenders.gov.in.

5.2 Bid Security

5.2.1 Bidders shall deposit, along with their Bid, a Bid Security of Rs. 20,00,000/-(Rupees Twenty Lacs only) **(the "Bid Security")**.

5.2.2 The Bid Security can be paid by way of RTGS/NEFT as indicated on the e-procurement portal.

The above mentioned RTGS or NEFT receipt should be scanned and uploaded along with Part A-Technical Bid and the original of the same shall be submitted in the office of the Executive Engineer-Project, NMC within two days after the application due date and shall not be submitted before submission of the application due date.

5.2.3 In case of online payment of the Bid Security, the list of options for making online payments, the bidders are advised to visit the linked E-Payment Options available on the web portal mahatenders.gov.in and submit a receipt generated online in scanned form along with online submission and the copy of the receipt generated online should be submitted in separate envelope with envelope "Technical Bid" to be submitted in hard form as per scheduled time mentioned herein at the office of NMC, Civil Lines, Nagpur.

5.2.4 The bid application without the Bid Security shall be summarily rejectedby NMC as non-responsive.

The Bid Security in the form of exemption certificate issued by any registration authority shall not be accepted.

No relaxation of any kind on Bid Security shall be given to any Bidder. NMC shall not be liable to pay any interest on the Bid Security deposit so made and the same shall be interest free.

5.2.5 The Bid Security of unsuccessful Bidders will be returned by NMC, without any interest, as promptly as possible on acceptance of the bid application of the Selected Bidder or when the Bidding Process is annulled by NMC, and in any case within 180 (One Hundred and Eighty) days from the Application Due Date.

5.2.6 The Selected Bidder's Bid Security will be returned, without any interest, upon the Developer signing the Development Agreement and furnishing the Performance Security by way of an irrevocable Bank Guarantee of a Nationalized Bank equivalent to Rs. 3.20 Crores (Rupees Three Crores Twenty Lacs only) in accordance with the provisions in the Development Agreement. NMC may, at the Selected Bidder's request, allow the Selected Bidder to adjust the Bid Security in the amount of Performance Security to be provided by him in accordance with the provisions of the Development Agreement.
The Selected Bidder shall ensure that the validity period of the Bid Security is extended as per the requirement of the LOA/Development Agreement.

5.2.7 NMC shall be entitled to forfeit and appropriate the Bid Security as Damages inter alia in any of the events specified in Clause 5.2.8 herein below. The Bidder, by submitting its Application pursuant to this RFP, shall be deemed to have acknowledged and confirmed that NMC will suffer loss and damage on account of withdrawal of its Application or for any other default by the Bidder during the Application Validity Period as specified in this RFP. No relaxation of any kind shall be given to any Bidder in respect of the forfeiture of the Bid Security for the purposes of this clause.

5.2.8 The Bid Security shall be forfeited as Damages without prejudice to any other right or remedy that may be available to NMC under the Bidding Documents and/ or under the Development Agreement, or otherwise, under the following conditions:

a. If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as specified in Section 8 of this RFP;

b. If a Bidder withdraws its Application during the Application Validity Period as specified in this RFP and as extended by mutual consent of the respective Bidder(s) and NMC;

c. If a Bidder has a Conflict of Interest as per Clause 6.1.1 c.

d. In the case of Selected Bidder, if it fails within the specified time limit –

i. to sign and return the duplicate copy of LOA; or
ii. to sign the Development Agreement; or
iii. to furnish the Performance Security within the period prescribed thereof in the LOA.
iv. On non-submission of the Performance Security within the timelines as specified in the LOA and the draft Development Agreement, after forfeiture of the Bid Security, the Application of the bidder shall be cancelled.

5.3 Performance Security:

The Successful Bidder on or before the date of signing of the Development Agreement shall:

a. Furnish Performance Security of Rs 3.20 Crores (Rupees Three Crores and Twenty Lacs) by way of irrevocable Bank Guarantee issued by a Nationalised Bank having branch in Nagpur in favour of NMC, as required under the Development Agreement.

b. The Performance Security shall be applicable for a period of 84 (eighty four) months or till the subsistence of the Development Agreement, whichever is later.

c. The Developer shall have the option of submitting the Bank Guarantee for a lesser period than stated at "b" above but for minimum one year at a time but it shall be the responsibility of the Developer to renew the same annually and NMC shall not be responsible for the same in any way. The Bank Guarantee submitted shall have a clause for claim period of additional one year beyond validity period as per standard practice.

d. Failure of the Successful Bidder to submit the Performance Security Bank Guarantee within the time specified shall constitute sufficient grounds for the annulment of the Letter of Award and forfeiture of the Bid Security as per the terms and conditions of the Development Agreement.

In such an event, the NMC reserves the right to:

i. Either invite the next best Bidder to match the Bid submitted by the Successful Bidder

OR

ii. Call for fresh Bids

OR

iii. Take any such measure as may be deemed fit in the sole discretion of NMC, including annulment of the bidding process.

5.4 Bidding Procedure

a. The bidders are expected to fill their tender carefully and scrutinize the same before sending on online (https://mahatenders.gov.in) No variation on any grounds such as mistakes, or misunderstanding will be allowed after the tender is opened, recommended, or accepted.

b. Bidders are advised to examine the Project site in greater detail, and to carry out, at their cost, such studies as may be required for submitting their respective Applications together with all required documents towards award of the concession for the Project.

c. NMC has decided to adopt an online single stage two envelope process (the **"Bidding Process"**) for selection of the bidder for award of the Project. It involves:

Qualification (the **"Qualification"**) of the interested parties/consortia (the **"Bidder"**, which expression shall, unless repugnant to the context, include the Members of the Consortium) who submit a qualification application (the **"Qualification Application"**) in accordance with the Annexure A - Qualification Application. Bidders meeting the Technical and Financial Capacity as set out in Clause 6.4 will be short-listed (the **"Technically Qualified Bidders"**) and will be entitled for opening of the Financial Proposal.

d. The bidding shall be online and the bidder shall submit online scanned copies of all documents duly self attested, specifically mentioned in Qualification Criteria.

e. Evaluation of the financial application (the **"Financial Proposal"**) of the Qualified Bidders made in accordance with **Annexure C - Financial Proposal**.

f. The bidder shall quote its offer as the Maximum Lump-sum Financial Offer to NMC from the Sale proceeds of the various components of the Project.

g. The Maximum Lump-sum Financial Offer to be shared with NMC must be quoted in Rs figures as well as in words as specified in the financial bid.

h. The bidder shall also pay to NMC the Upfront Premium as indicated elsewhere in this document.

i. The financial offer to be submitted in the financial bid format online as well as in the hard copy submission. In case of any discrepancy in the online financial bid format, the hard copy of the financial bid shall be considered as final.

j. The Project shall be awarded to the Bidder, who is the Technically Qualified Bidder and who has quoted the Maximum Lump-sum Financial Offer with NMC from the Sale proceeds of the various components of the NMC Commercial Complex.

k. In addition to online submission, the bidder is required to submit the hard copy of the technical documents as specified at Clause 6.6.2.They should also submit copy of the downloaded RFP Document in technical documents duly signed by the authorized signatory as a mark of unconditional acceptance of the terms and conditions of the RFP Document, Draft Development Agreement, Design Proposal etc.

l. For hard copy submission, the technical documents shall be sealed in two separate envelopes indicating the contents there in i.e. Technical and Financial.

These two envelopes should be placed in a single Envelope named as **"Proposal for NMC Commercial Complex on Plot No 2A of OCSP"** indicating the name of the work and name of the agency.

This hard copy of the RFP proposal is required to be submitted within two days after the online submission due date, in the office of Executive Engineer (Project) NMC. The hard copy should not be submitted before the online submission due date.

Address for submission of hard copy:

Office of
The Executive Engineer (Project)
Nagpur Municipal Corporation,
Civil Lines, Mahanagar Palika Marg, Nagpur
Phone: 0712-254283
E mail: eeprojectsnmc@gmail.com

m. **Clarification**

i. Bidders requiring any clarifications to the RFP may notify the NMC in writing or by fax and e-mail to the officer designated in clause above. The envelopes/communications shall clearly bear the following identification/title: **"Queries/Request for Additional Information: RFP for Development of NMC Commercial Complex on Plot No 2A of OCSP"**. They should send in their queries before the date specified in the schedule of Bidding Process contained in Notice Inviting Request for Proposal. NMC shall endeavour to respond to the queries within the period specified therein. The responses shall be sent by fax and/or e-mail. NMC shall forward all the queries and its responses thereto, to all purchasers of the RFP without identifying the source of queries.

n. NMC shall endeavour to respond to the questions raised or clarifications sought by the Bidders. However, NMC reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring NMC to respond to any question or to provide any clarification.

o. NMC may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by the NMC shall be deemed to be part of the RFP. Verbal clarifications and information given by NMC or its employees or representatives shall not in any way or manner be binding on NMC.

p. **Amendment of RFP and Development agreement**

i. At any time prior to the deadline for submission of Application, NMC may, for any reason, whether at its own initiative or in response to clarifications requested by a Bidder, modify the bidding documents by the issuance of revised versions of the bidding documents and/or Addendum / corrigendum. In all cases the revised version of the RFP and the Development agreement would be deemed to completely override the contents of the earlier documents.

ii. Any revisions thus issued shall be available on the website **www.mahatenders.gov.in**

iii. In order to afford the Bidders a reasonable time for taking a revision into account, or for any other reason, NMC may, in its sole discretion, extend the Application Due Date.

q. Bidder will be required to deposit along with the Application a Bid Security as per the Clause 5.2.

r. NMC shall receive Applications pursuant to this RFP in accordance with the terms set forth herein as modified, altered, amended and clarified from time to time by the NMC, and all Applications shall be prepared and submitted in accordance with such terms on or before the date specified in Notice Inviting Request for Proposal for submission of Application (the "**Application Due Date**").

s. The statements and explanations contained in this RFP are intended to provide a better understanding to the Bidders about the subject matter of this RFP and shall not be construed or interpreted as limiting in any way or manner the scope of work and obligations of the Developer set forth in the Development agreement or the NMC's rights to amend, alter, change, supplement or clarify the scope of work, the development & sales rights to be awarded pursuant to this RFP or the terms thereof or herein contained. Consequently, any omissions, conflicts or contradictions in the Bidding Documents are to be noted, interpreted and applied appropriately to give effect to this intent, and no claims on that account shall be entertained by the NMC.

t. Subsequent to this process, the Letter of Award (LoA) would be issued to the Successful Bidder by the NMC. Within 7 (seven) days from the date of issue of the LoA, the Successful Bidder shall send an acknowledgement agreeing to comply with the conditions set out therein. NMC shall promptly notify other Bidders that their Financial Proposals have been unsuccessful and their Bid Security shall be returned within 60 days without interest on the signing of the Development Agreement or on issuance of the LoA to the Successful Bidder. The Successful Bidder shall have to enter into a Development Agreement within 37 (thirty seven) days from date of issue of the LoA.

u. **Contents of the RFP**

This RFP comprises the disclaimer set forth hereinabove, the contents as listed below, and will additionally include any corrigenda/addenda issued.

Section 1	DISCLAIMER
Section 2	GLOSSARY
Section 3	INTRODUCTION
Section 4	INSTRUCTIONS TO BIDDERS
Section 5	QUALIFICATION APPLICATION
Section 6	FINANCIAL OFFER
Section 7	FRAUD AND CORRUPT PRACTICES
Section 8	PRE-BID MEETING
Section 9	MISCELLANEOUS
	ANNEXURES



5.5 Preparation and Submission of Application

5.5.1 Language

a. The Application and all related correspondence and documents in relation to the Bidding Process shall be in English language.

b. Supporting documents and printed literature furnished by the Bidder with the Application may be in any other language provided that they are accompanied by translations of all the pertinent passages in the English language, duly authenticated and certified by the Bidder.

c. Supporting materials, which are not translated into English, may not be considered.

d. For the purpose of interpretation and evaluation of the Application, the English language translation shall prevail.

5.5.2 Format and signing of Application

a. The Bidder shall provide all the information sought under this RFP. NMC shall evaluate only those Applications that are received in the required formats and complete in all respects. Incomplete and /or conditional Applications shall be liable to rejection.

b. The Bidder shall prepare the Application as specified in this Clause 5.5.

c. The Technical Documents as specified at Clause 6.6 shall be typed or written in indelible ink and signed by the authorized signatory of the Bidder who shall also initial each page in blue ink. In case of printed and published Documents, only the cover shall be initialled. All the alterations, omissions, additions or any other amendments made to the Application shall be initialled by the person(s) signing the Application. The Application shall contain page numbers serially and shall be bound together in hard cover.

d. There shall be no overwriting or corrections while filling the Application. Overwriting or corrections shall make the offer null and void

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5.5.3 Submission of Applications

a. The Bidder shall submit the Application as stipulated below

b. The documents as specified at clause 6.6.1 shall be uploaded duly signed by the authorized signatory.

c. The Technical Documents as specified at clause 6.6.2 shall be submitted in hard copy at the office of NMC as specified at point "e" below.

d. The Financial Proposal shall be submitted online in the format provided therein as well as in the hard copy. Any tampering with the online format shall make the proposal disqualified.

e. Envelope containing the Proposal for NMC Commercial Complex on Plot 2A of OCSP shall be submitted at the below mentioned location within two days after the online submission time and shall not be submitted before submission of the online bid:

Office of
The Executive Engineer (Project)
Nagpur Municipal Corporation,
Civil Lines, Mahanagar Palika Marg, Nagpur
Phone: 0712-254283
E mail: eeprojectsnmc@gmail.com

f. If the envelope is not sealed and marked as instructed above, NMC assumes no responsibility for the misplacement or premature opening of the contents of the Application and consequent losses, if any, suffered by the Bidder.

g. Applications submitted by fax, telegram or e-mail shall not be entertained and shall be rejected.

5.5.4 Application Due Date

a. Applications should be submitted as per the schedule mentioned in the Notice Inviting Request for Proposal on the Application Due Date in the manner and form as detailed in this RFP.

b. NMC may, in its sole discretion, extend the Application Due Date by issuing an Addendum uniformly for all Bidders.

5.5.5 Late Applications

Applications received by NMC after the specified time on the Application Due Date shall not be accepted for whatsoever reasons.

5.5.6 Modifications/ substitution/ withdrawal of Applications

a. The Bidder may modify, substitute or withdraw its Application after submission, provided that written notice of the modification, substitution or withdrawal is received by NMC prior to the Application Due Date. No Application shall be modified, substituted or withdrawn by the Bidder on or after the Application Due Date.

b. Any alteration/ modification in the Application or additional information supplied subsequent to the Application Due Date, unless the same has been expressly sought for by NMC, shall be disregarded.

5.6 Tests of responsiveness

5.6.1 Prior to evaluation of Applications as per Section 6, NMC shall determine whether each Application is responsive to the requirements of the RFP. An Application shall be considered responsive only if:

a. It is received as per the guidelines of online bidding as prescribed on the website www.mahatenders.gov.in;

b. It is received as per schedule specified in the Notice Inviting Request for Proposal on the Application Due Date including any extension thereof pursuant to the schedule of the bidding process;

c. The hard copy proposal documents are signed, sealed, bound, and marked as stipulated in this Section 5;

d. It is accompanied by the Power of Attorney and in the case of a Consortium, the Power of Attorney for Lead Member as specified in this RFP.

e. It contains all the information and documents (complete in all respects) as requested in this RFP;

f. It contains information in formats same as those specified in this RFP;

g. It contains certificates from its statutory auditors in the formats specified at Annexure A of this RFP for each Similar Project;

h. Tender Document cost Rs. 20,000/- (Rupees Twenty Thousand only) plus applicable GST non-refundable to NMC towards the cost of the Bidding Documents has been made as prescribed on the website www.mahatenders.gov.in;

i. Bid Security of 20, 00,000/-(Rupees Twenty Lacs only) has been submitted as prescribed in clause 5.2 of this RFP.

j. It is accompanied by the Consortium Agreement (in case of consortium bidding), specific to the Project, as stipulated in Clause 6.2;

k. It does not contain any condition or qualification in either the Technical Proposal or Financial Bid;

l. It is accompanied with the declaration that the Financial Bid of the Bidder is above the minimum amounts mentioned in Clause 8.1 of this RFP; and

m. It is not non-responsive in terms hereof.

n. NMC reserves the right to reject any Application which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by NMC in respect of such Application.

5.7. Evaluation Process & Declaration of Responsive Bidder

5.7.1 Opening and Evaluation of Applications

a. NMC shall open the Applications as per schedule specified in the Notice Inviting Request for Proposal, at the venue specified in Clause 5.5.3 e and in the presence of the Bidders who choose to attend.

b. Applications for which a notice of withdrawal has been submitted in accordance with the provisions set out in this RFP shall not be opened.

c. NMC will subsequently examine and evaluate Applications in accordance with the provisions set out in this RFP.

d. Bidders are advised that pre-qualification of Bidders will be entirely at the discretion of NMC. Bidders will be deemed to have understood and agreed that no explanation or justification on any aspect of the Bidding Process or selection will be given.

e. Any information contained in the Application shall not in any way be construed as binding on NMC, its agents, successors or assigns, but shall be binding against the Bidder if the Project is subsequently awarded to it on the basis of such information.

f. NMC reserves the right not to proceed with the Bidding Process at any time without the notice or liability and to reject any or all Application(s) without assigning any reasons.

g. If any information furnished by the Bidder is found to be incomplete, or contained in formats other than those specified herein, NMC may, in its sole discretion, exclude the relevant portion from computation of Technical and Financial capacity of the Bidder.

h. In the event that a Bidder claims credit for an Eligible Project, and such claim is determined by NMC as incorrect or erroneous, NMC shall reject such claim and exclude the same from evaluation of Technical Capacity of the Bidder, make a further deduction equivalent to the claim rejected hereunder. Where any information is found to be patently false or amounting to a material misrepresentation, NMC reserves the right to reject the Application in accordance with the provisions of this RFP.

5.7.2 Technical Presentation:

Each of the technically qualified bidders shall be called upon to make a Technical Concept & Implementation Plan Presentation to the Authority on the date and time as per schedule mentioned elsewhere in this document. The bidder shall highlight how it plans to conceptualize, develop and implement the project.

Subject to the provision of Clause 6.4 all technically qualified bidders shall prepare and submit, as specified in this RFP, a Development and Implementation Plan for the proposed project taking into consideration the following parameters:

a. Applicable Development Control Regulations/Building Byelaws
b. Applicable Zoning &Master plan
c. Maximum Development Potential Available
d. All Statutory Regulation, Laws as applicable to development of the facility
e. Existing Market conditions and any other factor deemed important by the bidder

The technically qualified bidder shall capture the following in its presentation:

a. Its understanding and interpretation of the Project
b. Financial planning and Revenue Generation Model for implementation of the Project. Editable Financial Model for the Project to be shared by the bidder/s during the presentation
c. Proposed Revenue Sharing model in case of additional development along with its editable financial model.
d. Highlight its experience in executing similar projects for other clients.
e. Indicate proposed methodology and tentative planning for implementation of the Project in terms of the Construction Plan and its Execution.
f. Indicate the plan for Facility Management and Maintenance.
g. Indicate the material specifications for development of the Project.
h. Indicate the proposed internal planning of the Commercial Complex.
i. Indicate its Marketing & Sales Plan for the Project considering the existing market conditions.

5.7.3 Financial Bid Opening:

Each of the technically qualified bidders on completion of their Technical Concept & Implementation Plan Presentation shall be intimated by the Authority about the date, time and venue for the opening of their Financial Bids.

5.7.3 Award of Project:

Letter of Award – Upon completion of the Bidding Process and identification of the H1 Bidder, subject to meeting the other qualification requirement laid down in RFP as prescribed in Section 6, NMC shall announce the selection of the H1 Bidder and will issue the Letter of Award to it on the receipt of necessary internal approvals.

5.8 Clarifications

a. To facilitate evaluation of Applications, NMC may, at its sole discretion, seek clarifications from any Bidder regarding its Application. Such clarification(s) shall be provided within the time specified by NMC for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.

b. If a Bidder does not provide clarifications sought under Clause 5.8.a above within the prescribed time, its Application shall be liable to be rejected. In case the Application is not rejected, they may proceed to evaluate the Application by construing the particulars requiring clarification to the best of its understanding, and the Bidder shall be barred from subsequently questioning such interpretation of NMC.

5.9 General Terms of Bidding Process

a. The interested Bidders are expected to carry out their own surveys, investigations and other detailed examination of the Project and the Project Site before submitting their Application. Nothing contained in the RFP Document Development Agreement and the conceptual Design Proposal shall be binding on the NMC nor confer any right on the Bidders, and the NMC shall have no liability whatsoever in relation to or arising out of any or all contents of the RFP Document ,Development Agreement and the conceptual Design Proposal.

b. Notwithstanding anything to the contrary contained in this RFP, the detailed terms specified in the Development Agreement shall have overriding effect; provided, however, that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Development Agreement

c. The documents including this RFP and all attached documents, provided by the NMC are and shall remain or become the properties of the NMC and are transmitted to the Bidders solely for the purpose of preparation and the submission of its Application in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Application. The provisions of this Clause 5.9 shall also apply *mutatis mutandis* to Application and all other documents submitted by the Bidders, and the NMC will not return to the Bidders any Application, document or any information provided along therewith.

5.7.4 Conditions Precedent to be fulfilled by the H1 Bidder prior to signing of the Development Agreement:

The H1 Bidder shall be required to satisfy the following conditions that may be prescribed under the Letter of Award:

a. Sign and return a duplicate copy of Letter of Award to NMC within 7 days

b. Submit the Performance Security within 30 days of Letter of Award,

c. Execute the Development Agreement with the NMC within 07 days of submission of Performance Security,

d. Make the payment of the necessary Stamp Duty on signing of Development Agreement.

e. Sign the Integrity Pact.

f. Submit to NMC, the certified true copy of its constitution documents and a legal opinion from the legal counsel of the selected Bidder with respect to the capacity and authority of the selected Bidder's to enter into the Development Agreement and the enforceability of the provisions thereof;

g. Delivered to the Authority a confirmation from the Selected Bidder / each of the Consortium members, in original, of the correctness of their Representations and Warranties set forth in the Development Agreement,

h. The Selected Bidder shall submit a copy of the detailed funding plan for completion of the Project, which shall include the equity and debt contribution by the consortium partners in the Developer entity and,

i. Disburse the Upfront Premium to NMC in following manner:

    i. Rs 2.00 crores within 30 days of Effective Date.

    ii. Balance Rs 3.00 crores by way of 5 equal post-dated cheques within 09 months from Effective Date.

j. Any other condition as may be prescribed under the Letter of Award.

d. This RFP is not transferable.

e. Conditional Bids shall be summarily rejected.

f. Any award of development & sales rights pursuant to this RFP shall be subject to the terms of Bidding Documents.

5.10 Number of Applications and costs thereof

a. No Bidder shall submit more than one Application for the Project. A Bidder applying individually or as a member of a Consortium shall not be entitled to submit another application either individually or as a member of any Consortium, as the case may be.

b. The Bidders shall be responsible for all of the costs associated with the preparation of their Applications and their participation in the Bidding Process. The NMC will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

5.11 Project site visit and verification of information

Bidders are encouraged to submit their respective Applications after visiting the Project site and ascertaining for themselves the site conditions, location, surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, applicable laws and regulations, and any other matter considered relevant by them.

5.12 Acknowledgement by Bidder

5.12.1 It shall be deemed that by submitting the Application, the Bidder has:

a. made a complete and careful examination of all volumes of the RFP;

b. received all relevant information requested from the NMC;

c. accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the NMC relating to any of the matters referred to above; and

d. Agreed to be bound by the undertakings provided by it under and in terms hereof.

5.12.2 NMC shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to the RFP, Development agreement or the Bidding Process, including any error or mistake therein or in any information or data given by the NMC.

5.13 Right to accept or reject any or all Applications

a. Notwithstanding anything contained in this RFP, NMC reserves the right to accept or reject any Application and to annul the Bidding Process and reject all Applications, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons thereof. In the event that NMC rejects or annuls all the Applications, it may, in its discretion, invite all Eligible Bidders to submit fresh Applications hereunder.

b. NMC reserves the right not to proceed with the Bidding Process at any time, without notice or liability, and to reject any Application without assigning any reasons.

c. NMC reserves the right to reject any Application, at any time, if:

i. At any time, a material misrepresentation is made or uncovered, or

ii. The Bidder does not provide, within the time specified by NMC, the supplemental information sought by NMC for evaluation of the Application.

d. If the Bidder is a Consortium, then the entire Consortium may be disqualified/ rejected. If such disqualification/ rejection occurs after the Financial Offer have been opened and the H1 Bidder gets disqualified/ rejected, then NMC reserves the right to

i. Invite the remaining Bidders to match the Financial Offer of the H1 Bidder / submit their Applications in accordance with the RFP; or

ii. Take any such measure as may be deemed fit in the sole discretion of NMC, including inviting fresh Applications or annulment of the Bidding Process, without any liability.

e. In case it is found during the evaluation or at any time before execution of the Development Agreement or after the execution of the Development Agreement, that one or more of the pre-qualification conditions have not been met by the Bidder, or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Developer either by issue of the LOA or entering into of the Development Agreement, and if the Bidder/SPV has already been issued the LOA or has entered into the Development Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by NMC to the Bidder, without NMC being liable in any manner whatsoever to the Bidder and without prejudice to any other right or remedy which NMC may have under this RFP, the Bidding Documents, the Development Agreement or under applicable law.

f. NMC reserves the right to verify all statements, information and documents submitted by the Bidder in response to the RFP. Any such verification or lack of such verification by NMC shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of NMC there under.

5.14 Application Validity Period

5.14.1 The Application shall be valid for a period of not less than 180 (one hundred and eighty) days from the Application Due Date ("**Application Validity Period**"). NMC at its discretion and if deemed fit can extend the validity period and the Application Validity Period shall be extended by the respective Bidders as per directions of NMC.

5.15 Confidentiality

Information relating to the examination, clarification, evaluation, and recommendation for the short-listed Technically Qualified Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising NMC in relation to or matters arising out of, or concerning the Bidding Process. NMC shall treat all information, submitted as part of Application, in confidence and shall require all those who have access to such material to treat the same in confidence. NMC may not divulge any such information unless it is directed to do so

by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or NMC or as may be required by law or in connection with any legal process.

5.16 Proprietary data

All documents and other information supplied by NMC or submitted by a Bidder to NMC shall remain or become the property of NMC. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Application. NMC will not return any Application or any information provided along therewith.

5.17 Correspondence with the Bidder

Save and except as provided in this RFP, NMC shall not entertain any correspondence with any Bidder in relation to the acceptance or rejection of any Application.

5.18. The following conditions shall be adhered to while submitting an Application:

a. Bidders should attach clearly marked and referenced continuation sheets in the event that the space provided in the prescribed forms in the Annexes is insufficient. Alternatively, Bidders may format the prescribed forms making due provision for incorporation of the requested information.

b. Information supplied by a Bidder (or other constituent Member if the Bidder is a Consortium) must apply to the Bidder, Member or Associate named in the Application and not, unless specifically requested, to other associated companies or firms.

c. In responding to the Application submissions, Bidders should demonstrate their capabilities in accordance with Clause 6.4

5.19. Financial Year:

Notwithstanding anything to the contrary contained herein, in the event that the Application Due Date falls within three months of the closing of the latest financial year of a Bidder, it shall ignore such financial year for the purposes of its Application and furnish all its information and certification with reference to the 3 (three) years, preceding its latest financial year. For the avoidance of doubt, financial year shall, for the purposes of an Application hereunder, mean the accounting year followed by the Bidder in the course of its normal business.

6. QUALIFICATION CRITERIA (ELIGIBILITY)

6.1 Constitution of Bidders

6.1.1 For determining the eligibility of Bidders (the "**Eligible Bidders**") hereunder, the following shall apply:

a. The Bidder for qualification may be a single entity or a group of entities (the "**Consortium**"), coming together to implement the Project. However, no Bidder applying individually or as a member of a Consortium, as the case may be, can be member of another Bidder. A Bidder violating this condition shall be liable for disqualification and NMC shall be entitled to forfeit and appropriate the Bid Security. The term Bidder used herein would apply to both a single entity and a Consortium.

b. A prospective bidder can be a Company under Companies Act, 1956/2013 or Partnership Firm formed under the Partnership Act 1932 or an LLP under the LLP Act 2008 or a Proprietorship firm registered under the relevant Act in India or a government-owned entity or any combination of them with a formal intent to enter into an agreement or under an existing agreement to form a Consortium. A Consortium shall be eligible for consideration subject to the conditions set out in Clause 6.2.2 below

c. A Bidder shall not have a conflict of interest (the "**Conflict of Interest**") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification of the Bidder, the NMC shall be entitled to forfeit and appropriate the Bid Security, as the case may be, as mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the NMC including consideration of such Bidder's proposal (the "**Damage**") without prejudice to any other right and remedy that may be available to the NMC under the Bidding Documents and/or the Development agreement or otherwise. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:

i. The Bidder, its Member or Associate (or any constituent thereof) and any other Bidder, its Member or any Associate thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder, its Member or an Associate thereof (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the subscribed and paid up

share capital of such Bidder, Member or Associate, as the case may be) in the other Bidder, its Member or Associate, is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply , indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or

ii. a constituent of such Bidder is also a constituent of another Bidder; or

iii. such Bidder, its Member or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, its Member or Associate, or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder, its Member or any Associate thereof; or

iv. such Bidder has the same legal representative for purposes of this Application as any other Bidder; or

v. such Bidder, or any Associate thereof, has a relationship with another Bidder, or any Associate thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other's' information about, or to influence the Application of either or each other; or

vi. such Bidder or any Associate thereof has participated as a consultant to the NMC in the preparation of any documents, design or technical specifications of the Project.

vii. In computing the Technical Capacity and Financial Capacity of the Bidder/ Consortium Members under this Section 6, the

Technical Capacity and Financial Capacity of their respective Associates, if any shall not be eligible.
The project experience of only the bidder in its own name shall be considered for evaluating Technical and Financial capacity

d. A Bidder who suffers from a Conflict of Interest, such Bidder/Consortium shall be disqualified/debarred from the Bidding Process and its Bid Security shall be forfeited.

e. A Bidder shall be liable for disqualification if any legal, financial or technical adviser of the NMC in relation to the Project is engaged by the Bidder, its Member or any Associate thereof, as the case may be, in any manner for matters related to or incidental to the Project. For the avoidance of doubt, this disqualification shall not apply where such adviser was engaged by the Bidder, its Member or Associate in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of this RFP. Nor will this disqualification apply where such adviser is engaged after a period of 1 (one) month from the date of announcement of Highest Ranked Bidder.

Explanation:

In case a Bidder is a Consortium, then the term Bidder as used in this Clause, shall include each Member of such Consortium.

6.2. Regarding Consortium

6.2.1 The Bidder should submit a Power of Attorney as per the format at Appendix A4, authorizing the signatory of the Application to commit the Bidder. In case of a Consortium, the Members should submit a Power of Attorney in favor of the Lead Member as per format at Appendix A5.

6.2.2. The selected Bidder shall have the option to form a Special Purpose Vehicle (the "SPV"), incorporated under the Indian Companies Act 2013 / LLP Act 2008, to execute the Development Agreement and implement the Project.

In case the Bidder is a Consortium, it shall comply with the following additional requirements:

a. Number of members in a consortium shall not exceed 3 (three); i.e. Lead Member plus two.

b. Subject to the provisions of sub-clause (a) above, the Qualification Application shall contain the information required for each member of the Consortium;

c. Members of the Consortium shall nominate one member as the lead member (the "**Lead Member**"), who shall subscribe at least 51% (fifty one per cent) or more of the Equity of the SPV for the Development and Sales Period and/or till 100% realization of NMC Revenue Share. The nomination(s) shall be supported by a Power of Attorney, as per the format in Appendix A5, signed by all the other members of the Consortium;

d. Non Lead Members of the Consortium shall subscribe at least 21% (twenty one per cent) or more of the Equity of the SPV for the Development and Sales Period and/or till 100% realization of NMC Revenue Share.

e. The Application should include a brief description of the roles and responsibilities of individual members, particularly with reference to financial, technical and O&M obligations;

f. An individual Bidder cannot at the same time be member of a Consortium submitting Application. Further, a member of a particular Bidder Consortium cannot be member of any other Bidder Consortium submitting Application;

g. The members of a Consortium may form a SPV to execute the Project, if awarded to the Consortium;

h. Members of the Consortium shall enter into a binding consortium agreement, substantially in the form specified at Appendix A6 (the "**Consortium Agreement**"), for the purpose of making the Application.

i. The Consortium Agreement, to be submitted along with the Application, shall, *inter alia*:

   i. Convey the intent to form an SPV with shareholding/ ownership equity commitment(s) in accordance with this RFP, which would enter into the Development Agreement and subsequently perform all the obligations of the Developer in terms of the Development Agreement, in case the Project is awarded to the Consortium;

ii. Clearly outline the proposed roles and responsibilities, if any, of each member;

iii. Commit the minimum equity stake to be held by each member;

iv. Commit that the Lead Member, whose experience will be evaluated for the purposes of this RFP, shall subscribe to minimum 51% (fifty one per cent) or more of the Equity of the SPV for the Development and Sales Period and/or till 100% realization of NMC Revenue Share.

v. Commit that other member of the Consortium (i.e. except the Lead Member), whose experience will be evaluated for the purposes of this RFP, shall subscribe to minimum 21% (twenty one per cent) or more of Equity of the SPV for the Development and Sales Period and/or till 100% realization of NMC Revenue Share

vi. Include a statement to the effect that all members of the Consortium shall be liable jointly and severally for all obligations of the Developer in relation to the Project until the expiry of the Construction period of 30 (thirty) months.

vii. Except as provided under this RFP and the Bidding Documents, there shall not be any amendment to the Consortium Agreement without the prior written consent of the NMC.

6.2.3 Change in composition of the Consortium

Under no circumstances the replacement and/or change in composition of the Consortium shall be allowed.



6.3. Regarding Blacklisting

a. Any entity which has been barred by the Central/ State Government, or any entity controlled by it, from participating in any project (PPP/BOT or otherwise), and the bar subsists as on the date of Application, would not be eligible to submit an Application, either individually or as member of a Consortium.

b. A Bidder including any Consortium Member or Associate should, in the last 3 (three) years, have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial pronouncement or arbitration award against the Bidder, Consortium Member or Associate, as the case may be, nor has been expelled from any project or contract by any public entity nor have had any contract terminated by any public entity for breach by such Bidder, Consortium Member or Associate.

c. The bidder needs to clearly indicate in its offer any on-going actions, disputes, arbitration proceedings, blacklisting procedure with any State or Central government department. The details need to be provided in the following format:

Case No.	Name of Case	Department	Name of Govt. Officer handling the case with contact no.	Current Status	Attach details such copy of letter, notice etc.

In case any false information is provided by the bidder and NMC investigates the facts, in such a scenario NMC reserves the right to disqualify the bidder and not open its financial proposal without incurring any financial and legal liabilities.



6.4 Evaluation Parameters:

The Applicant's competence and capability is proposed to be established by the following parameters:

a. Technical Capacity; and
b. Financial Capacity

6.4.1 The Bidder for Qualification has to demonstrate Technical Capacity and Financial Capacity as mentioned below:

a) Technical Capacity: For demonstrating experience in executing similar projects (the **"Technical Capacity"**), the Bidder should have met the following qualification requirements:

The Bidders should have undertaken the development/construction and sales of the following **"Similar Projects"** as mentioned below:

i. At-least **One similar project** having constructed area of **One Lac Eighty Five Thousand Nine Hundred and Sixty square feet** (total built up area of RCC Structure/ Combination of RCC-Steel Structure at a single location (single premises) along-with all with all support facilities and infrastructure facilities) in the last 07 financial years in India.

OR

ii. At-least **Two similar projects,** each having constructed area of **One Lac Sixteen Thousand Two Hundred and Twenty Five square feet** (total built up area of RCC Structure/ Combination of RCC-Steel Structure at two independent locations along-with all with all support facilities and infrastructure facilities) in the last 07 financial years in India.

OR

iii. At-least **Three similar projects,** each having constructed area of **Ninety Two Thousand Nine Hundred and Eighty square feet** (total built up area of RCC Structure/ Combination of RCC-Steel Structure at three independent locations along-with all with all support facilities and infrastructure facilities) in the last 07 financial years in India.

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Capital cost of the Similar Projects above should be more than Rs. 51 Crores for one similar project, more than 32 Crores each for two similar projects and more than Rs. 26 Crores each for three similar projects;

Capital Cost shall mean the base construction cost (sum of costs associated with the construction of all project facilities including procurement cost of land) plus other costs such as escalation in prices, contingencies, preoperative costs, financing costs and interest costs during construction (IDC).

b) Financial Capacity:

i. Average Turnover of the Bidder for last 3 financial years ending as on the date of Tender Submission: INR 16 Crores (Rupees Sixteen Crores).

ii. The Bidder shall have a minimum Net-worth of INR 3.50 Crores (Rupees Three Crores and Fifty Lacs) as on the date of Tender Submission as stipulated in the Clause 7.2.

iii. The Bidder should have un-utilized Credit Lines/Financial Facility with its Bankers or liquid funds to the tune of at-least Rs. 6.50 Crores (Rupees Six Crores and Fifty Lacs) as on the date of Tender Submission.

c) In case of a Consortium, the combined technical capacity and financial capacity of those Members shall be considered, who have and shall continue to have Equity share of at least 21% (twenty-one per cent) in the SPV.
If technical experience in case of consortium is shown jointly then the number of projects of each partner needs to be shown, evaluation shall be done on the number of project's meeting the criteria. Clubbing of construction area shall not be allowed.

6.4.2 For the purpose of qualification, Similar Projects shall mean:

a. Any Real Estate Development project such as those of Government/Institutional buildings, Commercial/Shopping Complex, Mixed Use Complex, Service Apartments, Residential Buildings, Hotel buildings, Convention Centres, Auditoriums, Hospital buildings with requisite parking.

6.4.3 The Similar Projects shall meet the following criteria:

a. The Sales of the various components of the real estate development project should have been successfully completed.

b. In case of purely construction contracts relevant documents from the client's such as completion certificates, certificate from statutory auditor regarding revenue receipts received from the said contract with copy of relevant bank statement shall be furnished.

c. In case of purely construction contracts wherein Sales is not within the scope of work of the contractors, relevant experience for Sales of the similar projects shall be submitted separately

d. COD and/or completion of work of the project should be within a period of the last 07 financial years from the Application Due Date.

e. Constructed Area shall be as defined in the latest I.S. Codes.

f. In case of on-going projects, 90% completed projects (in terms of project cost) shall be accepted provided the same is certified by the PMC of the client and by the Statutory Auditor of the bidder indicating the details of the revenue receipts from the project.However, such 90% project cost shall be more than the capital cost of the qualifying projects as mentioned above.

g. For the purpose of qualifying, prospective bidders need to fulfil the requirement of similar projects in terms of constructed area and capital cost and the bidders shall be at liberty to show Government or Private projects e.g., projects can be purely Government or private sector projects or a combination of Government and private sector projects. But in any case, clubbing of built-up area between projects shall not be allowed.

6.4.4 The Developer shall provide details of its Operation & Maintenance (O&M) expertise.

6.5 Financial information for the purpose of evaluation

6.5.1 For the purpose of this RFP document, Net Worth (the "**Net Worth**") is defined as:

Net Worth = (Subscribed and Paid-up equity capital + Reserves) – (Revaluation reserves + miscellaneous expenditure not written-off + reserves not available for distribution to equity shareholder)

6.5.2 For the purpose of measuring Financial Capacity:

a. In case of a Single Entity Bidder, the Net Worth and Average Turnover of the past 3 (three) financial years as on tender submission date will be considered. The Net Worth, Turnover and Unutilized Credit Limits information should be provided as per format in Appendix A3.

b. In case of a Consortium, Combined Net Worth, Turnover and Un-utilized Credit Limits as per the Appendix A3 shall be considered. The Net Worth, Turnover and Un-utilized Credit Limits of only those consortium members would be considered which satisfy Clause 6.4.1 c.



6.6 Details of Experience to be submitted:

6.6.1 Documents to be uploaded online are as follows:

1. Receipt regarding payment of RFP document cost shall be scanned and submitted.
2. Receipt regarding submission of Bid Security as per clause 5.2 shall be scanned and submitted.
3. Forms regarding technical experience in the prescribed format at Appendix A1, Appendix A2 and Appendix A3 along with supporting documents;
4. Performance certificate(s) from the concerned client(s) [along with a certificate from the statutory auditor] stating the area of development, time taken to complete the project, Capital Cost of the project, Facilities (as mentioned earlier) provided in the development, Organisational set up, copies of sale deeds etc. The performance certificates shall be signed by an officer not below the rank of Executive Engineer in case of Government projects and by a Director in case of private projects.
5. Valuation Certificate from the Statutory Auditor of the Bidder shall be considered for evaluation of Capital Cost for the eligible similar projects.
6. Certificate(s) from the concerned client(s) evidencing the COD of the project. The certificates shall be signed by an officer not below the rank of Executive Engineer in case of Government projects and by a Director in case of private projects.
7. Certificate(s) from the concerned client(s) evidencing the sale of the various components of the project. The certificates shall be signed by an officer not below the rank of Executive Engineer in case of Government projects and by a Director in case of private projects.
8. In case of purely construction contracts relevant documents from the client's such as completion certificates, certificate from statutory auditor regarding revenue receipts received from the said contract with copy of relevant bank statement shall be furnished.
9. In case of purely construction contracts, relevant certificates from clients evidencing Sales experience for the quantum as specified for the Similar Projects along-with relevant extracts of the Sale Agreement/Deed and certified by the Statutory Auditor.
10. In case of 90% completed projects, certificates from the project PMC and the Bidders' Statutory Auditor.
11. Copies/copies of relevant pages of the approved DPR/Bankable Report for the concerned projects.

12. Copy of the Consortium Agreement, in case of a Consortium as per the format at Appendix A6;
13. Power of Attorney for signing the Application as per the format at Appendix A4;
14. If applicable, the Power of Attorney for Lead Member of Consortium as per the form at Appendix A5;
15. Statement of Legal Capacity as per the format at Appendix A7.
16. Certificate(s) from its statutory auditors specifying the Net Worth, Turnover and Un-utilized Credit Limits/Financial Facility of the Bidder, as at the close of the preceding financial year (before the Application Due Date), and also specifying that the methodology adopted for calculating such Turnover, Net Worth and Credit Lines conforms to the provisions of Clause 6.4.1(b).
17. Certificate from the Bidder's Bankers (including Consortium member) regarding the un-utilized credit limits or liquid funds.
18. Brief Development cum Implementation Plan for the project.
19. Financial Bid as per the online format duly filled without tampering with the format.

6.6.2 Technical Documents to be submitted in hard copy at NMC office are as Follows:

1. Duly signed copy of the downloaded RFP along-with all the Volumes.
2. Copy of Memorandum and Articles of Association, if the Bidder is a body corporate, and if a partnership then a copy of its registered partnership deed;
3. Audited Annual Reports of the Bidder (of each Member in case of a Consortium) for the last 3 (three) financial years and as on date of Application Submission, preceding the year in which the Application is made.
4. Company/Firm Profilesof the Bidder (of each Member in case of a Consortium).
5. List of Technical Manpowerof the Bidder (of each Member in case of a Consortium) with copies of their CVs and educational certificates.
6. List of machinery and equipment'sof the Bidder (of each Member in case of a Consortium).
7. Actual Photographs of similar projects undertaken by the bidder previously (of each Member in case of a Consortium).

8. Details of the O&M agency regarding projects, manpower, equipment's etc.
9. Copy of the Concept cum Implementation Plan for the project along with the Presentation.
10. Hard copy of the duly filled in Financial Bid.

All the above Technical Documents shall be bound together in hard cover and the pages shall be numbered serially and the financial bid shall be in a separate envelope. The two separate envelopes shall be put in one single larger envelope for submission.



7. FINANCIAL OFFER

7.1 Financial Offer

7.1.1 Financial Offer shall comprise of:

a. Lump-sum Financial offer to be shared with NMC shall be subject **to a minimum of Rs 42.00 Crores (Rupees Forty Two Crores only)** (including Upfront Premium) from Sale Proceeds from the various components of the Project.
Bidders have to quote over and above this figure of Rs Forty Two crores. (Bidding Parameter).

b. Upfront Land Premium has been fixed at Rs. 5.00 crores which is to be paid to NMC in instalments as mentioned below:

   i. Rs 2.00 crores within 30 days of Effective Date.

   ii. Balance Rs 3.00 crores by way of 5 equal post-dated cheques within 09 months from Effective Date.

c. The bidder quoting the Highest Lump-sum Financial Offer to be shared with NMC shall be the H1 bidder.

d. Payment of the Financial Offer shall be done proportionate to the Sales Proceeds received after adjusting for the Upfront Premium of Rs. 5.00 crores. The detailed payment schedule is provided in the Development Agreement.

e. In case the payment of balance amount (amount as quoted less Rs 5.00 crores upfront premium) to NMC exceeds 48 (forty-eight months) from the date of Letter of Award, then the balance amount payable to NMC shall be increased by a percentage equivalent the increase in Ready Reckoner Rates from previous year for the Project Site area for the upcoming respective year.

f. 100% of the Lump-sum Financial Offer amount payable to NMC shall be payable by the Developer on or prior to the completion of 80% of the Sale Process from the Project or 48 months from Effective Date, whichever is earlier.

g. On early payment of the NMC Revenue Share by the Developer, a discount at the rate of Reserve Bank of India Bank Rate prevailing on the day of early payment would be awarded to the Developer on the amount paid earlier than the scheduled date in proportion to time frame of early payment.

h. The payment of NMC Sales Revenue share shall be through the Escrow Account mechanism. The payment schedule of the NMC Sales Revenue shall be as per the RFP and it shall be routed to NMC through the exclusive account opened by the developer for this project to receive the payment from buyer. All the payments from buyer shall only be deposited in this account only. During the Technical Presentation, the Developer shall submit its detailed Financial Plan including the Revenue Model and the Financial Plan submitted during the Technical Presentation shall be evaluated by the Committee and the same shall be accepted.

i. The Developer shall be at a liberty to decide the selling price for the various components of the Project depending on the prevailing market sentiments which shall be informed to the NMC Strategic Committee before finalisation of final terms with the prospective buyer. **However, the Selling Rate shall at no times be equal to or lower than the prevailing Ready Reckoner Rates for the zone.**

7.2 Committees for Project Implementation

7.2.1 Strategic Committee:

The strategic and financial decisions with regard to the NMC Commercial Complex Facility shall be approved by a Strategic Committee comprising of Hon'ble. Commissioner, Chief Engineer, Deputy Municipal Commissioner (In charge of Estate Dept.), Executive Engineer - Project and representative of the Developer (**"Strategic Committee"**).

7.2.2 Empowered Committee:

The general day to day operating decisions with regard to the NMC Commercial Complex Facility shall be approved by an Empowered Committee comprising of Addl. Commissioner, Deputy Municipal Commissioner (In charge of Estate Dept.), Executive Engineer - Project and representative of the Developer (**"Empowered Committee"**).



7.3 Evaluation of the Financial Offer

7.3.1 The evaluation of Financial Offer shall be done on the basis of the Maximum Lump-sum Financial Offer to be shared with NMC (as indicated above) and the Bidder quoting the Maximum Lump-sum Financial Offer over and above the minimum shall be the H1 bidder subject to meeting the other technical qualification requirements as laid out in this RFP.

7.3.2 **Unreasonably high or low financial offers are liable to be rejected by NMC, without incurring any obligation or liability. The Hon'ble Municipal Commissioner, NMC shall be the final decision-making authority in this regard.**

7.3.3 The Financial Offer should be uploaded in the format as available on the website **www.mahatenders.gov.in.**



8. Fraudulent and Corrupt Practices

8.1.1 The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, NMC may reject an Application without being liable in any manner whatsoever to the Bidder if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process.

8.1.2 Without prejudice to the rights of NMC under Clause 8.1.1 hereinabove, if a Bidder is found by NMC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, such Bidder shall not be eligible to participate in any tender or RFP issued by NMC during a period of 2 (two) years from the date such Bidder is found by NMC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

8.1.3 For the purposes of this Section 8, the following terms shall have the meaning hereinafter respectively assigned to them:

a. "**corrupt practice**" means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to, or employing, or engaging in any manner whatsoever, directly or indirectly, any official of NMC who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Development agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of NMC, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process);
b. "**Fraudulent practice**" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;
c. "**Coercive practice**" means impairing or harming or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the Bidding Process;

d. **"Undesirable practice"** means (i) establishing contact with any person connected with or employed or engaged by the NMC with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and

e. **"Restrictive practice"** means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

9. Pre-Bid Meeting

9.1.1 Pre-Bid Meeting(s) of the interested parties shall be convened at the designated date, time and place. A maximum of 2 (two) representatives of each Bidder shall be allowed to participate on production of NMC letter from the Bidder.
Owing to the prevailing Covid-19 condition, the Pre-Bid may simultaneously be conducted through Video Conferencing and only those representatives who prefer to attend in person can attend.
The queries of the prospective bidders should be submitted in written form as per the schedule mentioned in the Notice Inviting Request for Proposal. Mere discussion on a point during the Pre-Bid meeting (physical or virtual) shall not be construed as submission of queries and shall not be considered for clarification.

9.1.2 During the course of Pre-Bid Meeting, the Bidders will be free to seek clarifications and make suggestions for consideration of NMC. NMC shall endeavor to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Bidding Process.

10. Miscellaneous

10.1.1 The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Nagpur shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.

10.1.2 NMC, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;

a. Suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
b. Consult with any Bidder in order to receive clarification or further information;

c. Pre-qualify or not to pre-qualify any Bidder and/ or to consult with any Bidder in order to receive clarification or further information;
d. Retain any information and/ or evidence submitted to NMC by, on behalf of, and/ or in relation to any Bidder; and/ or
e. Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.

10.1.3 It shall be deemed that by submitting the Application, the Bidder agrees and releases NMC, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder and the Bidding Documents, pursuant hereto, and/ or in connection with the Bidding Process, to the fullest extent permitted by applicable law, and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.

10.1.4 The H1 Bidder shall be required to submit the applications and obtain permission, approval, consent, license etc., as may be required for execution of the Project, from the respective competent authorities such as NMC's planning department, health department, heritage committee, garden department, environment department and / or any other statutory body before commencement of the work at its cost. Any changes, additions, alterations, deletion mandatorily required to be done any of the various NMC granting approvals, consents, permissions etc. shall not entitle the H1 Bidder / Developer to seek change in the Financial Offer and subject to provisions of the Development Agreement, the Financial Offer submitted will always remain final and binding.



ANNEXURES

Annexure A – Qualification Application

Appendix A1

Details of Bidder:

1. (a) Name:

   (b) Country of incorporation:

   (c) Address of the corporate headquarters and its branch office(s), if any, in India:

   (d) Date of incorporation and/ or commencement of business:

2. Brief description of the Organization including details of its main lines of business and proposed role and responsibilities in this Project:

3. Details of individual(s) who will serve as the point of contact/ communication for NMC:

(a) Name:

(b) Designation:

(c) Company:

(d) Address:

(e) Telephone Number:

(f) E-Mail Address:

(g) Fax Number:

4. Particulars of the Authorised Signatory of the Bidder:

(a) Name:

(b) Designation:

(c) Address:

(d) Phone Number:

(e) Fax Number:

5. In case of a Consortium:

(a) The information above (1-4) should be provided for all the Members of the Consortium.

(b) Information regarding the role of each Member should be provided as per table below:

Sl. No.	Name of Member	Role (Refer Section 6)	Percentage of Equity in the Consortium (Refer Section 6)
1.			
2.			
3.			

(c) The following information shall also be provided for each Member of the Consortium:

Name of Bidder / member of Consortium:

No.	Criteria	Remarks
1.	Has the Bidder/ constituent of the Consortium been barred by the [Central/ State] Government, or any entity controlled by it, from participating in any project (BOT or otherwise)?	
2.	If the answer to 1 is yes, does the bar subsist as on the date of Application?	
3.	Has the Bidder/ constituent of the Consortium paid liquidated damages of more than 5% (five per cent) of the contract value in a contract due to delay or has been penalized due to any other reason in relation to execution of a contract, in the last three years?	

6. A statement as per Clause 6.3 by the Bidder and each of the Members of its Consortium (where applicable) or any of their Associates disclosing material non-performance or contractual non-compliance in past projects, contractual disputes and litigation/ arbitration in the recent past needs to be attached

Appendix-A-2

Experience in Similar type of Projects (Refer Clause 6.4.1 (a))

Bidder Type Single entity/ Consortium Member	
Name(s) of other members of consortium, in case the said project was executed as a consortium	
Name of the Project	
Area of Development/Construction	
Details of Sales undertaken	
Scope of the work for which the Bidder was responsible (min. 3 activities)	
Time Period	
Capital Cost of the Project	
Period of Maintenance	
Master Plan & Brief note on the Project	
Photographs showing different activities included in the project	
Relevant Extracts of the Project DPR/Bankable Report	

Instruction:

1. Bidders are expected to provide information in respect of each Similar Project on separate sheets. The projects cited must comply with the eligibility criteria specified in Clause 6.4.1 (a) of the RFP.

2. Supporting documents with completion certificate should be attached.

Appendix-A-3

Financial Capacity of the Bidder :(Refer Clauses 6.4.1(b))

Turnover:

Bidder Type	Turnover (INR Crore)			Average Turnover (INR Crore)
	Year 1	Year 2	Year 3	
Single entity Bidder				
Lead Member Consortium Member 1: Consortium Member 2:				
Combined Total Turnover (INR Crore)				

Net-worth:

Bidder Type	Net Worth (INR Crore)
	As on Application Due Date
Single entity Bidder	
Lead Member: Consortium Member 1: Consortium Member 2:	
Combined Total Net-worth (INR Crore)	

Un-utilized Credit Limits or Liquid Funds/Financial Facility:

Bidder Type	Un-utilized Credit Limits or Liquid Funds/Financial Line Facility as on Application Due Date: (INR Crore)
Single entity Bidder	
Lead Member: Consortium Member 1: Consortium Member 2:	
Combined Total Un-utilized Credit Limits (INR Crore)	

Name and address of Bidder's Banker:

Instructions:

1. Bidder consisting of a single entity should fill in details as per the row titled Single entity Bidder and ignore the rows titled Consortium Members. In case of a Consortium, row titled Single entity Bidder may be ignored.

2. For Net Worth, refer Clause 6.5.1

3. The Bidder/ its constituent Consortium Members shall submit copies of the balance sheets, financial statements and Annual Reports for 3 (three) years preceding the Application Due Date. The financial statements shall:

   (a) Reflect the financial situation of the Bidder or Consortium Members;

   (b) Be audited by a statutory auditor;

   (c) Be complete, including all notes to the financial statements; and

(d) Correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

4. The Bidder shall provide an Auditor's Certificate specifying the net worth of the Bidder and also specifying the methodology adopted for calculating such net worth in accordance with the Clause 6.5.1.

6. In the case of a Consortium, a copy of the Consortium Agreement shall be submitted in accordance with Clause 6.2.

7. The Bidder shall also provide the name and address of the Bankers to the Bidder.



Appendix A4

Power of Attorney for signing of Application

(To be executed on Stamp paper of Rs. 100 (Rupees Hundred) or of appropriate value)

Know all men by these presents, We, ... (name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorise Mr. / Ms (Name), son/daughter/wife of ..... and presently residing at ....., who is presently employed with us/ the Lead Member of our Consortium and holding the position of ....., as our true and lawful attorney (hereinafter referred to as the "**Attorney**") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our bid for the Project – Development of NMC Commercial Complex at Plot No 2A of OCSP, being developed by Nagpur Municipal Corporation ("**NMC**") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders' and other conferences and providing information / responses to NMC, representing us in all matters before NMC, signing and execution of all contracts including the Development agreement and undertakings consequent to acceptance of our bid, and generally dealing with NMC in all matters in connection with or relating to or arising out of our bid for the said Project and/or upon award thereof to us and/or till the entering into of the Development agreement with NMC.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, ..., THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS ..... DAY OF ....., 2022

For.....

FULVED INFRA PVT. LTD. NAGPUR

(Signature, name, designation and address)
Witnesses:

1.

2.

Accepted

Notarised

(Signature, name, designation and address of the Attorney)

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*

- *Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*

- *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Appostille certificate.*



Appendix A5

Power of Attorney for Lead Member of Consortium

(To be executed on Stamp paper of Rs. 100 (Rupees Hundred) or of appropriate value)

Whereas the Nagpur Municipal Corporation, (the "NMC") has invited bids for the project "Development of NMC Commercial Complex at Plot No 2A of OCSP (the "Project").

Whereas, ..., ...and ..... (collectively the "Consortium") being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and NMC to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's bid for the Project and its execution.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

We, ... having our registered office at ....., M/s. ....., having our registered office at ....., and M/s. ....., having our registered office at ....., (hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorise M/s ....., having its registered office at ....., being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney") and hereby irrevocably authorise the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the Concession/ Contract, during the execution of the Project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, accept the Letter of Award, participate in bidders' and other conferences,

respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with NMC, and/ or any

other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium's bid for the Project and/ or upon award thereof till the Development Agreement is entered into with NMC.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS ..... DAY OF ....., 2022.

For .....

(Signature, Name & Title)

For .....

(Signature, Name & Title)

For .....

(Signature, Name & Title)

(Executants)

(To be executed by all the Members of the Consortium)

Witnesses:

1.

2.



Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*

- *Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*

- *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Appostille certificate.*



Appendix A6

Consortium Agreement
(To be executed on Stamp paper of Rs. 100 (Rupees Hundred) or of appropriate value)

THIS CONSORTIUM AGREEMENT is entered into on this the ..... day of ....., 2022.

AMONGST

1. [..... Limited, a company incorporated under the Companies Act, 1956]*and having its registered office at ..... (Hereinafter referred to as the "First Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

* Bidder to suitably change, if required
{} Indicates fields that could be deleted, if not applicable
AND

2. [..... Limited, a company incorporated under the Companies Act, 1956]* and having its registered office at ..... (hereinafter referred to as the "Second Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)
AND

3. [..... Limited, a company incorporated under the Companies Act, 1956]* and having its registered office at ..... (hereinafter referred to as the "Second Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

The above mentioned parties of the FIRST and SECOND PART are collectively referred to as the "Parties" and each is individually referred to as a "Party"

WHEREAS

(A) Nagpur Municipal Corporation, Nagpur, established under the MMC Act, 1949, represented by its Municipal Commissioner and having its principal offices at Mahanagar Palika Marg, Civil Lines, Nagpur - 400 051, India (hereinafter referred to as the "NMC" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns)

(B) NMC has invited applications (the "Applications") by its Request for Proposal No. _____ dated _____ (the "RFP") for selecting Developer for the financing, development, operation ,maintenance and marketing &sales of various Project components of the NMC

Commercial Complex at Plot No 2A of OCSP (the "Project") through Public Private Partnership.

(C) The Parties are interested in jointly bidding for the Project as members of a Consortium and in accordance with the terms and conditions of the RFP document and other bid documents in respect of the Project, and

(D) It is a necessary condition under the RFP document that the members of the Consortium shall enter into a Consortium Agreement and furnish a copy thereof with the Application.

NOW IT IS HEREBY AGREED as follows:

1. Definitions and Interpretations

In this Agreement, the capitalised terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the RFP.

2. Consortium

2.1 The Parties do hereby irrevocably constitute a consortium (the "Consortium") for the purposes of jointly participating in the Bidding Process for the Project.

2.2 The Parties hereby undertake to participate in the Bidding Process only through this Consortium and not individually and/ or through any other consortium constituted for this Project, either directly or indirectly or through any of their Associates.

3. Covenants

The Parties hereby undertake that in the event the Consortium is declared the selected Bidder and awarded the Project, it shall incorporate a special purpose vehicle (the "SPV") under the Indian Companies Act for entering into a Development Agreement with the NMC and for performing all its obligations as the Developer in terms of the Development agreement for the Project.

4. Role of the Parties: The Parties hereby undertake to perform the Roles and Responsibilities as described below:

a. Party of the First Part shall be the Lead member of the Consortium and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium during the Bidding Process and until the Effective Date under the Development

Agreement when all the obligations of the SPV shall become effective;

c. Party of the Second Part shall be {the ..... Member of the Consortium ;}

d. Party of the Third Part shall be {the ..... Member of the Consortium ;}

5. Joint and Several Liabilities

The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the RFP and the Development Agreement.

6. Shareholding in the SPV

6.1 The Parties agree that the proportion of shareholding among the Parties in the SPV shall be as follows:

First Party (Lead Member):

Second Party (Consortium Member):

Third Party (Consortium Member):

6.2 The Parties undertake that the First Party will hold a minimum of 51% (fifty one per cent) and the other two Parties shall hold a minimum of 21% (twenty one per cent) of the Equity of the SPV till completion of the Project and 100% payment of NMC Revenue Share.

6.3 The Parties undertake that they shall comply with all Equity lock-in requirements set forth in the Development agreement.



7. Representation of the Parties

Each Party represents to the other Parties as of the date of this Agreement that:

a. Such Party is duly organised, validly existing and in good standing under the laws of its incorporation and has all requisite power and NMC to enter into this Agreement;

b. The execution, delivery and performance by such Party of this Agreement has been authorised by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/ power of attorney in favour of the person executing this Agreement for the delegation of power and NMC to execute this Agreement on behalf of the Consortium Member is annexed to this Agreement, and will not, to the best of its knowledge:

   i. require any consent or approval not already obtained;

   ii. violate any Applicable Law presently in effect and having applicability to it;

   iii. Violate the memorandum and articles of association, by-laws or other applicable organisational documents thereof;

   iv. violate any clearance, permit, concession, grant, license or other governmental authorisation, approval, judgement, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or

   v. create or impose any liens, mortgages, pledges, claims, security interests, charges or Encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;

c. this Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it; and

d. there is no litigation pending or, to the best of such Party's knowledge, threatened to which it or any of its Affiliates is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfilment of its obligations under this Agreement.

8. Termination

This Agreement shall be effective from the date hereof and shall continue in full force and effect in accordance with the Development Agreement, in case the Project is awarded to the Consortium. However, in case the Consortium is either not pre-qualified for the Project or does not get selected for award of the Project, the Agreement will stand terminated upon return of the Bid Security by the NMC to the Bidder, as the case may be.

9. Miscellaneous

a. This Consortium Agreement shall be governed by laws of India.

b. The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of NMC.

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN. SIGNED, SEALED AND DELIVERED	SIGNED, SEALED AND DELIVERED



Appendix A7

Statement of Legal Capacity

(To be forwarded on the letterhead of the Bidder/ Lead Member of Consortium)

Ref. Date:

To,
The Hon'ble Commissioner,
Nagpur Municipal Corporation, Nagpur
Civil Lines, Nagpur

Dear Sir,

We hereby confirm that we/ our members in the Consortium (constitution of which has been described in the application) satisfy the terms and conditions laid out in the RFP document.

We have agreed that ..... (insert member's name) will act as the Lead Member of our consortium.

We have agreed that ..... (Insert individual's name) will act as our representative/ will act as the representative of the consortium on its behalf* and has been duly authorized to submit the RFP. Further, the authorised signatory is vested with requisite powers to furnish such letter and authenticate the same.

Thanking you,
Yours faithfully,

(Signature, name and designation of the authorised signatory)
For and on behalf of.....

PRAFULVED INFRA PVT. LTD. NAGPUR

Appendix A8

Declaration

(To be forwarded on the letterhead of the Bidder/ Lead Member of Consortium)

Ref. Date:

To,
The Hon'ble Commissioner,
Nagpur Municipal Corporation, Nagpur
Civil Lines, Nagpur

Dear Sir,

We hereby confirm that amounts stated in the Financial Offer of the Bidder are above the minimum amounts mentioned in Clause 7.1 of this RFP document.

We agree that if our Financial Offer is below the minimum amounts mentioned in Clause 7.1 of this RFP, same will be treated as non-responsive Financial Bid.

Thanking you,

Yours faithfully,

(Signature, name and designation of the authorised signatory)
For and on behalf of.....



Annexure B - Financial Offer

(Refer Section 7)

Letter Comprising the Financial Offer

Dated:

To,
The Hon'ble Commissioner,
Nagpur Municipal Corporation,
Civil Lines,
Nagpur-1

Sub: Financial Bid for the Project – Development of NMC Commercial Complex on Plot No 2A of OCSP belonging to NMC.

Dear Sir,

1. With reference to your RFP document dated _____, I/we, having examined the Bidding Documents and understood their contents, hereby submit my/our Application for the aforesaid Project. The Application is unconditional and unqualified.

2. I/ We acknowledge that the NMC will be relying on the information provided in the Application and the documents accompanying the Application for selection of the Developer for the aforesaid Project, and we certify that all information provided therein is true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the Bid are true copies of their respective originals.

3. This statement is made for the express purpose of our selection as Developer for the development of the aforesaid Project.

4. I/ We shall make available to the NMC any additional information as it may find necessary or require to supplement or authenticate the Application.

5. I/ We acknowledge the right of the NMC to reject our Application without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever

6. I/ We certify that in the last three years, we/ any of the Consortium Members or our/ their Associates have neither failed to perform on any contract, as

evidenced by imposition of a penalty by an arbitral or judicial NMC or a judicial pronouncement or arbitration award, nor been expelled from any project or contract by any public NMC nor have had any contract terminated by any public NMC for breach on our part.

7. I/ We declare that:

   a. I/ We have examined and have no reservations to the Bidding Documents, including any Addendum issued by the NMC;

   b. I/ We do not have any conflict of interest in accordance with Clauses 6.1.1 (c) of the RFP document;

   c. I/ We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in Section 9 of the RFP document, in respect of any tender or request for proposal issued by or any agreement entered into with the NMC or any other public sector enterprise or any government, Central or State; and

   d. I/ We hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 8 of the RFP, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

8. I/ We understand that you may cancel the Bidding Process at any time and that you are not bound to accept any Application that you may receive for the Project, without incurring any liability to the Bidders, in accordance with the RFP document.

9. I/ We believe that we/ our Consortium satisfy(s) the Net Worth, Turnover and Credit Line/Financial Facility criterion and meet(s) the requirements as specified in the RFP document.

10. I/ We declare that we/ any Member of the Consortium, or our/ its Associates are not a Member of a/ any other Consortium submitting an Application for the Project.

11. I/ We certify that in regard to matters other than security and integrity of the country, we/ any Member of the Consortium or any of our/ their Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory NMC which could cast a doubt on our ability to

PARFULVED INFRA PVT. LTD. NAGPUR

undertake the Project or which relates to a grave offence that outrages the moral sense of the community.

12. I/ We further certify that in regard to matters relating to security and integrity of the country, we/ any Member of the Consortium or any of our/ their Associates have not been charge-sheeted by any agency of the Government or convicted by a Court of Law.

13. I/ We further certify that no investigation by a regulatory NMC is pending either against us or against our Associates or against our CEO or any of our directors/ managers/ employees.

14. I/ We undertake that in case due to any change in facts or circumstances during the Bidding Process, we are attracted by the provisions of disqualification in terms of the guidelines referred to above, we shall intimate the NMC of the same immediately.

15. The Statement of Legal Capacity as per the format at Appendix A7 of the RFP document, and duly signed is enclosed. The power of attorney for signing of Application and the power of attorney for Lead Member of consortium as per format provided at Appendix A4 and Appendix A5 respectively of the RFP are also enclosed.

16. I/ We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the NMC in connection with the selection of the Bidder, or in connection with the Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.

17. In the event of my/ our being declared as the Selected Bidder, I/we agree to enter into a Development Agreement in accordance with the draft that has been provided to me/ us prior to the Application Due Date. We agree not to seek any changes in the aforesaid draft and agree to abide by the same.

18. I/ We have studied all the Bidding Documents carefully and also surveyed the other project details. We understand that except to the extent as expressly set forth in the Development Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by NMC or in respect of any matter arising out of or relating to the Bidding Process including the award of Concession.

19. I/ We offer a Bid Security of Rs. 20,00,000 Lacs (Rs. Twenty Lacs only) to NMC in accordance with this RFP Document.



20. I/ We agree and understand that the Application is subject to the provisions of the Bidding Documents. In no case, I/we shall have any claim or right of whatsoever nature if the Project is not awarded to me/us or our Application is not opened or rejected.

21. The financial offer has been quoted by me/us after taking in to consideration all the terms and conditions stated in the RFP, Development agreement, our own estimates of cost and after a careful assessment of the site and all the conditions that may affect the project cost .and implementation of the project

22. I/We agree and undertake to abide by all the terms and conditions of the RFP document.

23. I/WE the consortium Members agree and undertake to be jointly and severally liable for all the obligations of the Developer under the Development Agreement till completion of complete sales of the Projects in accordance with the development agreement.}.

24. I/We shall keep this offer valid for 180 (One hundred and eighty) days from the submission due Date specified in RFP.

In witness thereof, I/We submit this Bid under and in accordance with the terms of the RFP document.

Yours faithfully

Date: (Signature, name and designation of the Authorized signatory)

Place: Name and seal of Bidder/ Lead Member

Note: Paragraphs in curly parenthesis may be omitted by the Bidder, if not applicable to it, or modified as necessary to reflect Bidder-specific particulars.

Annexure C - Financial Offer Format:

Dated: [•], 2022

To
The Hon'ble Commissioner
Nagpur Municipal Corporation,
Mahanagar Palika Marg, Civil Lines,
Nagpur.

Sub: Financial Bid for Selection as Developer for the NMC Commercial Complex Projecton Plot No 2A of OCSP.

Dear Sir,

1. With reference to your RFP dated _____, we, having examined the Bidding Documents and understood their contents, hereby submit our Financial Quote for the aforesaid Project.

2. The Financial Quote is unconditional and unqualified.

3. We hereby offer the Maximum Lump-sum Financial Offer of _____ (in words.....) over and above the minimum of Rs ..... crores (Rupees ..... Crores and ..... Lacs only) (i.e. Rs ..... crores) in respect of the Maximum Lump-sum Financial Offer to be paid to NMC from the Sale Proceeds of various components of the Project.

4. We agree to keep this offer valid for 180 (one hundred and eighty) days from the Application Submission Due Date.

5. We agree and undertake to abide by all the terms and conditions of the RFP.

In witness thereof, we submit this Financial Quote under and in accordance with the terms of the RFP.

Yours faithfully,

Date: [•], 2022 (Signature, name and designation of the Authorized signatory)

Place:

DEVELOPMENT AGREEMENT

BETWEEN

**NAGPUR MUNCIPAL CORPORATION NAGPUR,
MAHANAGAR PALIKA MARG, CIVIL
LINES, NAGPUR 440001(M.S)**

AND

**M/s PRAFULVED INFRA PVT.LTD.
F NO 501, SHRIKRISHNA RESIDENCY, DHARAMPETH, NAGPUR
MAHARASHTRA, 440010**

FOR

**DESIGN, BUILD, FINANCE, OPERATE and SALE OF
MULTI UTILITY SHOPPING MALL WITH OFFICE SPACES at NMC
ORANGE CITY SHOPPING MALL site at NAGPUR (Next to Jaiprakash
Nagar Metro Station)**

Issued by:

NAGPUR
MUNICIPAL CORPORATION

**Office of the Executive Engineer (Project), Civil Lines, Mahanagar
Palika Marg, Nagpur.**

Telephone: 0712-254283

Email: eeprojectnmc@gmail.com

VOLUME II

ALL THE AMENDMENT IN THE AGREEMENT CLAUSES IS ATTACHED IN VOLUME I

Volume II:

DRAFT DEVELOPMENT AGREEMENT (DA)

FOR

DESIGN, BUILD, FINANCE, OPERATE and SALE OF MULTI UTILITY SHOPPING MALL WITH OFFICE SPACES at NMC ORANGE CITY MALL site at NAGPUR (Next to Jaiprakash Nagar Metro Station)

Project Proponent:

NAGPUR
MUNICIPAL CORPORATION

Issued by:
Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg, Nagpur.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com

July 2021

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DEVELOPMENT AGREEMENT

This Development Agreement mutually agreed and entered into on Ninth day of February, Two Thousand and Twenty-Two at NMC, Nagpur.

BETWEEN

Nagpur Municipal Corporation, the urban local body for the city of Nagpur, duly established under and functioning as per the MMC Act, 1949 ("**Act**") through its Municipal Commissioner, having its office at Nagpur Municipal Corporation, Civil Lines, Mahanagar Palika Marg, Nagpur (hereinafter referred to as "**NMC**", which expression shall, unless excluded by or repugnant to the context or meaning thereof, mean and include its administrators, successors and assigns) OF ONE PART;

AND

M/S Prafulved Infra Pvt.Ltd. F No 501, Shrikrishna Residency, Dharampeth, Nagpur Maharashtra, 440010 a Private limited firm incorporated under the Companies Act, 1956/Partnership Act/LLP Act and having its registered office at Nagpur (hereinafter referred to as "**Developer**") which expression shall where context so admits be deemed to include its successor or administrators and permitted assigns or assigns) of the OTHER PART;

NMC and the Developer are hereinafter referred to individually as the "**Party**" and collectively as the "**Parties**".

WHEREAS;

1. NMC has decided to develop the Orange City Street Project at Nagpur on the stretch of starting from Wardha Road up to Jaitala, Nagpur.

2. Currently NMC proposes to develop as a component of the Orange City Street Project, a Multi Utility Shopping Mall and Office spaces with requisite parking at the NMC ORANGE CITY MALL site at Nagpur (Next to Jaiprakash Nagar Metro Station).

3. The planning and designs of the said a Multi Utility Shopping Mall have been finalized by NMC through its PMC M/s Architect Hafeez Contractor and such Design & Architectural Planning shall be final and binding on the Developer for development of this Project, Developer shall have liberty only to undertake changes in the Structural Design & Internal Arrangement and such changes shall be undertaken only after approval of NMC and its PMC. The revised structural changes if any shall be vetted by an independent autonomous institution such as VNIT or similar such institutions.

4. The work of the said a Multi Utility Shopping Mall has already been completed by NMC up to plinth level through its contractor i.e. Mahametro.

5. NMC now desires to complete the balance construction (above plinth level) of the project on Design-Build-Finance-Operate and Sale (DBFOS) basis under which the Developer can propose a Structural Design & Internal Arrangement and Finance, Construct, Maintain and undertake Marketing & Sale of the various components of the project.

6. NMC has carried out a competitive bidding process for the selection of a suitable developer to implement the Project (defined hereinafter), and issued a Request for Proposal ("**RFP**") dated July 2021 inviting proposals from the interested developers. Upon evaluation of the proposals received, NMC accepted the proposal of the Successful Bidder and issued Letter of Award ("LOA") No.64/EE/P dated 04/01/2022 to the Successful Bidder and invited it to *interalia* execute this Development Agreement for implementation of the Project in accordance therewith.

7. NMC and the Developer are executing this Development Agreement to award to the Developer the development and sales rights including right and obligation with regards to designing, planning, financing, construction, operations and maintenance, marketing and sales of the various components of the Multi Utility Shopping Mall with Office Spaces and requisite parking of the Project and the Developer has agreed to enter into this Development Agreement for execution of the Project on DBFOS basis subject to and on the terms, conditions and covenants set forth hereinafter.

NOW THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Development Agreement, the sufficiency and adequacy of which is hereby acknowledged, and intending to be legally bound thereby, the Parties agree as follows:

Article 1. DEFINITIONS & INTERPRETATIONS

In this Agreement, unless the context or meaning otherwise requires, the following words or expressions used in the Agreement (including the recitals) shall have the meaning as ascribed hereunder:

1.1 Definitions

1. **Additional Costs** shall mean the additional capital expenditure and / or the additional operating, marketing and maintenance costs or as the case may be, which the Developer would be required to incur as a result of Change in Law.

2. **Affected Party** shall mean the Party claiming to be affected by a Force Majeure Event in accordance with Article 12.1.

3. **Agreement / Development Agreement** shall mean this Development Agreement, its Recitals, and the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement.

4. **Applicable Laws** shall mean all laws brought in force by the Government of India or the Government of Maharashtra including the Constitution of India, any law, orders, rules, regulations, byelaws, statutory orders, executive orders, decrees, judicial decisions, notification, or other similar directives made pursuant thereto, injunctions, writs and orders of any Court or legally building instructions, policies, guidelines, codes, or standards (including environmental standards) issued by the executive, legislative, judicial or administrative entity, in India or any of the above as amended from time to time, including currency restrictions, any form of delegated legislation, a treaty and a directive or regulation made by virtue of powers conferred by the international treaty, which are applicable to this Agreement and to the Parties and as may be in force and effect during subsistence of this Agreement.

5. **Applicable Permits** shall mean all clearances, licenses, permits, authorizations, consents, no objection certificates and approvals under or pursuant to the Laws, required to be obtained and maintained by the Developer in connection with the construction, operation & maintenance and sales of the Project during the subsistence of this Development Agreement.

6. **Appointed Date** shall mean the date on which every Condition Precedent is either satisfied or waived, as the case may be, in accordance with the provisions of this Agreement, and such date shall be the date of commencement of the Development and Sales Period.

7. **Approval** shall mean the approval given in writing by NMC or any other competent authority required from time to time for implementation of the Project including for undertaking sales of any component of the NMC Orange City Shopping Mall with Office Spaces and requisite parking.

8. **"Arbitration Act"** means the Arbitration and Conciliation (Amendment) Act, 2019 and shall include modifications to or any re-enactment thereof as in force from time to time;

9. "**Associate**" **or** "**Affiliate**" shall mean, in relation to either Party {and/or Consortium Members}, a person who controls, is controlled by, or is under the common control with such Party {or Consortium Member} (as used in this definition, the expression "**control**" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person or the power to direct the management and policies of such person by operation of law, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise);

10. "**Bank**" shall mean any bank from the list of nationalized banks approved by NMC;

11. **Bid** means the documents in their entirety comprised in the bid submitted by the Selected Bidder in response to the Request for Proposals and any other clarifications/amendments/corrigenda submitted by the bidder in accordance with the provisions thereof.

12. **Bid Security** means the security provided by the Bidder to NMC along with the Bid, in accordance with the Request for Proposal, and which is to remain in force until substituted by the Performance Security.

13. "**Capital Expenditure**" shall mean all capital expenditure incurred by the Developer in connection with the Project.

14. **Change in Law** shall have the meaning assigned to it in Article 17.

15. **Change in Ownership** shall mean any change in the shareholding (as on the date of this Agreement) of the Developer and any such change shall not be permitted under this Development Agreement;

16. **Commencement Certificate** shall mean the commencement certificate issued by NMC upon approval of construction plan consistent with the Bankable Detailed Project Report.

17. **Completion Certificate** shall mean the certificate issued by the Independent Engineer/Monitoring Agency to the Developer on the completion of Construction Works of the Project as per the construction plan and approved DPR. This shall be issued on completion of the construction period of 18 months and on Independent Engineer completing all the necessary tests to

certify the completion of the Project Facilities. Completion as per RERA Act shall also be the responsibility of the Developer.

18. **Conditions Precedent** shall have the meaning ascribed to it in Article 2.

19. **Commercial Development** shall mean the development which shall include but shall not be limited to all the amenities and facilities including:

    (i) Hypermarkets & Anchor Shops
    (ii) Showrooms & Shops
    (iii) Commercial Offices & Conference Hall
    (iv) Recreational Spaces
    (v) Multiplex/Miniplex
    (vi) Requisite Parking
    (vii) Such Commercial facilities shall conform to the designs approved for the Project Site by NMC and shall be developed as per the Detailed Project Report to be submitted by the Developer and to be approved by NMC.
    (viii) Such Commercial Facility shall adhere to the RERA and Green building norms at all times.

20. **Commercial Operation Date (COD)** shall have the meaning as completion of project at such stage at which occupancy certificate for whole occupiable components of building are completed and occupancy certificate of the same is issued by thecompetent authority.

21. **Commencement Notice:** In the event that the Project complies with the NMC guidelines, approved designs and this Agreement including but not limited to Volume 3 of this bidding document, the Independent Engineer shall submit a compliance report to the Authority for information. The Authority may, if required, conduct a joint inspection of the Project Asset with the Independent Engineer. Upon finding the aforesaid report satisfactory, the Authority shall direct the Independent Engineer to issue a notice to the Developer (the "Commencement Notice").

22. **Completion Notice:** Upon the completion of the design, development, construction and other activities, but prior to seeking completion certificate from Authority, in relation to the Project, in accordance with the terms of this Agreement, as may be required to bring the Project into commercial operation, the Developer shall intimate Independent Engineer in writing, together with all Applicable Permits required for the purposes of commencement of commercial operations ("Completion Notice"). Independent Engineer shall, within 15 (fifteen) Business Days of the receipt of the Completion Notice, inspect the Project to ascertain its compliance

23. **Construction Period** means the period beginning from the Appointed Date and ending on the COD;

24. **Construction Works** shall mean all works and things required to be constructed by the Developer, pursuant to approved construction plan and DPR.

25. **Cure Period** shall have the meaning ascribed to it in Clause 13.1:

26. **Damages** shall have the meaning set forth in Clause 2.3 and 2.4.

27. **Developer** shall mean the Successful Bidder who has signed this Development Agreement with NMC and defined as such in the array of Parties in the Recitals to this Agreement.

28. **Development and Sales Rights** shall mean the right to design and engineer, procure, finance, construct, install, commission, operate and maintain the Project Facilities and market & undertake sales from the Project and to exercise and enjoy the rights, power, authorization and entitlements as set forth in this Agreement and to transfer the Project Facilities to NMC on Termination, in accordance with the provisions of this Agreement.

29. **Development and Sales Period** shall mean the period of 60 (Sixty) months inclusive of the construction period of 18 (Eighteen) months commencing from the Appointed Date, during which the Developer shall Design, Build, Finance, Operate & maintain and sell the various components of the Project. The Development Agreement shall be valid during the Development and Sales Period if not terminated earlier. The Development and Sales Period is inclusive of Construction Period of 18 (Eighteen) months from the Appointed Date.

30. **Debt Due** means the aggregate of the following sums expressed in Indian Rupees outstanding on the Transfer Date:

(a) The principal amount of the debt provided by the Lenders under the Financing Agreements for financing the Total Project Cost (the "**principal**") but excluding any part of the principal that had fallen due for repayment two years prior to the Transfer Date;

(b) All accrued interest, financing fees and charges payable under the Financing Agreements on, or in respect of, the debt referred to in Sub-clause (a) above until the Transfer Date but excluding (i) any interest, fees or charges that had fallen due one year prior to the Transfer Date, (ii) any penal interest or charges payable under the

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Financing Agreements to any Lenders, and (iii) any pre-payment charges in relation to accelerated repayment of debt except where such charges have arisen due to NMC Event of Default; and

(c) any subordinated debt which is included in the Financing Documents and disbursed by Senior Lenders for financing the Total Project Cost;

provided that if all or any part of the Debt Due is compulsorily convertible into Equity at the option of Lenders and/or the Developer, it shall for the purposes of this Agreement be deemed to be Debt Due even after such conversion and the principal thereof shall be dealt with as if such conversion had not been undertaken

31. **Dispute** mean any dispute, difference or controversy of whatsoever nature, howsoever arising,under or out of or in relation to this Agreement (including its interpretation) including the validity, breach or termination thereof and so notified by one Party to the other Party.

32. **Dispute Resolution Procedure** shall mean the procedure for resolution of Dispute between the Parties set forth in Article15.

33. **Detailed Project Report (DPR)** shall mean the report to be prepared by the Developer and duly approved by NMC containing the detailed master plan, project plan, architecture plan, engineering plans, project construction plan including the time-lines for achievement of construction milestones and the Operation and Maintenance plan. This report shall be inclusive, but not shall be limited to, the appreciation of individual Project Facilities connectivity, market study, area statement, land use pattern development mix, phase wise construction milestone, infrastructure development, economic and financial analysis, environmental and social impact assessment and the detailed technical drawings of the Project Site already prepared and approved by NMC through its PMC.

34. **Development Control Regulation (DCR)** shall mean the Nagpur Metropolitan Area Development Control Regulations 2018/Unified Development and Promotion Regulations 2020 and it's up-dations from time to time, State Government Gazette Notifications and any other documents affecting the Project. The DCR which is in force on the date of submission of the proposals shall be the base DCR and further up-dations in the same shall be considered.

35. **"Document" or "Documentation"** means documentation printed or in written form, tapes, discs, drawings, computer programmes, writings, reports, photographs, cassettes, or expressed in any other written, audio or visual form;

36. **"Effective Date"** shall mean the date on which this Development Agreement has been executed by the Parties

37. "**Emergency"** means a condition or situation that is likely to endanger the security of the individuals on or about the Project including users thereof or which poses an immediate threat of material damage to the Project or part thereof;

38. **Encumbrance** means, in relation to the Project Site, any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligation where applicable herein but excluding utilities.

39. "**Equity" means** the sum expressed in Indian Rupees representing the equity share capital of the Developer and shall include the funds advanced by any member of the Consortium or by any of its shareholders to the Developer for meeting the equity component of the Total Project Cost.
40. **Event of Default** shall have the meaning ascribed in Article 13.

41. **"Facility"** shall mean the new shopping mall cum commercial complex with, office(s) and common areas to be designed, financed, constructed, and developed by the Developer at the Project Site as per the terms and conditions of this Agreement.

42. **Financial Close** means the fulfilment of all conditions precedent to the initial availability of funds under the Financing Documents as specified in Clause 10.6.

43. **Financial Model** means the financial model adopted by Lenders, setting forth the capital and operating costs of the Project and revenues thereof on the basis of which financial viability of the Project has been determined by the Lenders, and includes a description of the assumptions and parameters used for making calculations and projections therein.

44. **Financial Package** means the financing package indicating the total capital cost of the Project and the means of financing thereof, as set forth in the Financial Model and approved by the Lenders, and includes Equity, all financial assistance specified in the Financing Agreements, and Equity support, if any.

45. **Financing Document** shall mean any agreement, note, bond, indenture, credit agreement, debt repayment or refinancing instrument, reimbursement agreement, mortgage, security agreement, guarantee, registration statement, disclosure statement, subordination agreement, partnership agreement, participation agreement or other financing document, including any modification, extensions, renewals or replacement, relating to the interim or long term financing (or any refinancing) of the Total Project Cost of the Project

which are to be executed between Developer and the Lenders or other relevant parties thereto, without creating any right or interest on project land and assets in favor of any third party or lender or financer or financial institution (private or government).

46. **Financial Year** shall mean the period commencing from April 1st of any given year to March 31st of the immediately succeeding year. It is clarified that first accounting year shall be the period commencing from the COD and ending on the 31st (thirty-first) day of March of the next calendar year.

47. **Force Majeure** shall have the meaning specified in Article 12.

48. **"Good Industry Practice"** means those practices, methods, techniques, standards, skills, diligence and prudence which are generally and reasonably expected of and accepted internationally from a reasonably skilled and experienced person(s) engaged in the same type of undertaking as envisaged under this Agreement and acting generally in accordance with the provisions of the Applicable Laws, and would mean good engineering practices in the design, engineering, procurement, construction and project management and which would be expected to result in the performance of its obligations by the Developer in accordance with this Agreement, Applicable Laws, Applicable Permits, reliability, safety, environment protection, economy and efficiency;

49. **Government Agency** shall mean the Government of India or Government of Maharashtra or NMC, department, commission, board, body, bureau, agency authority, instrumentally, court or other judicial or administrative body, central, state or local, having jurisdiction over the Developer, NMC, the Project Facility or any portion thereof, or the performance of all or any of the services or obligations of NMC and the Developer under or pursuant to this Agreement.

50. **Insurance Cover** shall mean the aggregate of the maximum sums insured under the insurance taken out by the Developer pursuant to Article 6.4.3.

51. **Lenders** means financial institutions, banks, funds or trusts, who provide or refinance the debt component of the cost of the Project (including guarantees, letters of credit, risk participation facility, take-out facility and other forms of credit enhancement) and includes subscribers to / trustee for the holders of debentures /bonds or other securities issued by the Developer to meet the Total Project Cost of the Project.

52. **Letter of Award** shall mean the letter issued by NMC signifying its acceptance to the proposal submitted by the Successful Bidder.

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53. **Material Adverse Effect** shall mean material adverse effect on:

- The ability of any Party to observe and perform any of its rights and obligations under and in accordance with the provision of this Agreement and.
- A substantial increase in the capital, operational maintenance and marketing cost of the Project.

54. **Material Breach** shall mean a breach by either Party of any of its obligations under this Agreement which is likely to have a Material Adverse Effect on the Project and which such Party shall have failed to remedy.

55. **NMC** shall mean the Nagpur Municipal Corporation, Nagpur.

56. **Upfront Premium** shall mean upfront one-time payment payable to NMC. The payable amount shall be Rs 5 crores (Rupees Five Crores) as per Clause 6.1.1 of the RFP and the Financial Offer submitted.

57. **Operation and Maintenance** shall mean the operation and maintenance, rectification and remedy of defects of the Project Facilities as per the O&M Requirements and approved DPR and Drawings & Designs during the Development and Sales period.

58. **O&M Requirements** shall mean the requirements for the operation and maintenance of the Project Facilities;

59. **O&M Contract** means the Operation and Maintenance Contract that may be entered into between NMC, the Developer and the O&M contractor for O&M of the Facility;

60. **O&M Contractor** means the person or entity which is a facility management company and appointed with the approval of NMC to undertake the operation and maintenance of the Facility;

61. **Occupancy Certificate** shall mean a certificate issued by the NMC to the Developer, declaring the Project Facility to be operational;

62. **Operations Period** means the period commencing from COD and ending on the Termination Date.

63. **Performance Security** shall have the meaning as specified in Article 10.1.

64. **Person** shall mean a natural person, corporation, limited or general partnership, Limited Liability Company, tenancy-in-common, joint venture,

association, business trust, and any other organization and any combination of them.

65. **Project** shall mean the project for development of Shopping/ Commercial Complex Facility through DBFOS on the NMC land at Jaiprakash Nagar and for that purpose to design, finance, construction, operations & maintenance, marketing and sales of the Project Facilities to be developed on the Project Site. The Project Facilities shall be constructed in accordance with the Detailed Project Report ("**DPR**") to be approved by NMC and the provisions of this Development Agreement and the Design Proposal. The Design Proposal planned by NMC is annexed as Volume 3.

66. **Project Agreements** means this Development Agreement, the Financing Document, EPC Contract, O&M Contract, and any other agreements or material contracts that may be entered into by the Developer with any person in connection with matters relating to, arising out of or incidental to the Project, but does not include the Substitution Agreement and Escrow Agreement, if any.

67. **Project Assets** means all physical and other assets relating to and forming part of the Project Site including (a) rights over the Site in the form of Lease rights, Right of Way or otherwise; (b) tangible assets such as civil works and equipment including foundations, pavements, fountains, irrigation system, pumping systems, structures, works, electrical systems, communication systems and administrative offices; (c) Project Facilities situated on the Project Site; (d) all rights of the Developer under the Project Agreements; (e) financial assets, such as receivables, security deposits etc.; (f) insurance proceeds; and (g) Applicable Permits and authorisations relating to or in respect of the Project.

68. **Project Completion Schedule** means the progressive schedule of construction for completion of the Project on or before the Scheduled Project Completion Date.

69. **Project Facility / Facilities** shall consist of facilities constructed on the Project Site as a Shopping/ Commercial Complex Facility as per the approved Detailed Project Report and Drawings & Designs in accordance with the provision mentioned in this Agreement.

70. **Independent Engineer Contract** shall mean the contract between NMC and the Independent Engineer appointed by NMC who shall be monitoring agency of NMC for the activities of the Developer and its PMC, if any &shall be the Independent Engineer for this Project. The bills of the Independent Engineer shall be approved by NMC and shall be paid by the Developer.

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71. **Project Site** shall mean the identified piece of land at Jaiprakash Nagar measuring approximately 3300 square meters more particularly described in **Schedule 1**.

72. **Ready Reckoner Rate,** also known as circle rate, is the minimum price at which a property has to be registered in case of its sales/transfer. These rates are determined by the state government and are revised from time to time according to market dynamics. The NMC Ready Reckoner shall form the basis for sales/transfer of any of the Project components.

73. **Residual Amount** shall mean the Debt Due minus the amount spent towards the Project;

74. **RFP** shall mean the Request for Proposal dated July 2021 issued by the NMC.

75. **Right of Way** shall mean the constructive possession of the Project Site, together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for construction, operation and maintenance of the Project in accordance with this Agreement.

76. **Rupees or Rs.** refers to the lawful currency of the Republic of India.

77. **Safety Requirements** shall mean such requirements to be followed by the Developer during the Development and Sales Period as set out in Schedule 6;

78. **Scheduled Project Completion Date** shall mean a period of 18 months from the Appointed Date for completion of the Construction Works.

79. **Senior Lender(s)** shall mean the banks or financial institutions, including its successors and assignees who have agreed to finance any part of the Total Project Cost and who shall hold paripass charge on the assets, rights, title and interest of the Developer;

80. **Specifications and Standards"** means the specifications and standards relating to the quality, quantity, capacity and other requirements of the Facility as set forth in Schedule 5 and shall include any modifications thereof, or additions thereto, as included in the design and engineering of the Facility as approved by NMC;

81. **Successful Bidder** shall mean the Bidder who has been issued the Letter of Award pursuant to the RFP Process and invited by NMC to sign the Development Agreement.

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82. **Saleable Area** shall mean the shall mean the area allowed for sale under approved plan by the Town Planning Department after complying all development control rules and other norms prevailing at the time of approval of Plans.

83. **Sub-Contractors/Suppliers/Vendors** shall mean the construction contractor(s) and/or operation and maintenance contractor(s) and/or any other contractors and sub-contractors, manufacturers or suppliers or vendors of the Project and/or building/ services or part thereof, as the context may require, to whom the Developer contracts or subcontracts the Project in full or part;

84. **Surrender Date** means the date on which this Agreement and the Project Rights hereunder expires pursuant to the provisions of this Agreement or is terminated by a Termination Notice;

85. **Tax (es)** shall mean and include all Indian taxes, fees, cess, levies that may be payable by the Developer under the Applicable Laws including goods &services tax (GST 2016), excise duties, customs duties, value added tax, sales tax, local taxes, cess and any impost or surcharge of like nature (whether Central, State or local) on the goods, materials, equipment and services incorporated in and forming part of the Project charged, levied or imposed by any Government Agency, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include taxes on corporate income.

86. **Technical Proposal** shall mean the business plan and the approach and methodology for implementing the Project submitted at the proposal stage by the Developer and on the basis of which the Detailed Project Report shall be prepared.

87. **Technical Information** shall mean all technical data, know-how, methodologies, techniques, industrial information, trade secrets, confidential information, drawing (including design and engineering drawing and plans), technical reports, operating and testing procedures, instruction and operating manuals, and production and development specifications, the result and records of research and development and the result of consulting work, in whatever medium they may be composed which relate to the Project.

88. **Termination** shall mean termination of this Agreement pursuant to a Termination Notice or otherwise upon expiry in accordance with the provisions with this Agreement.

89. **Termination Notice** shall mean a communication in writing by a Party to the other Party regarding Termination in accordance with Article 13.2 of this Agreement.

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90. **Termination Date** shall mean a date specified in the Termination Notice as the date on which Termination occurs or /comes into effect.

91. **"Total Project Cost"** shall mean the lowest of the following:

a. actual capital cost incurred for the completion of the Project and as certified by the auditors of repute; or

b. total cost of the Project as set forth in Financing Documents. Provided that any decision with respect to the actual project cost shall be a final decision of the NMC.

Provided further that if any part of the total cost of the project cost is funded in foreign currency, in accordance with the Financing Documents, then the rate of exchange shall be determined as on the date of Bid, and the Total Project Cost shall be computed as if such foreign currency were converted with reference to such exchange rate. In the event of Termination of this Agreement requiring NMC to make Termination Payments, the liability of NMC shall be determined on basis of the rate of exchange prevailing on the date of Termination Notice or on the date of the Bid, whichever is lower, and the amounts payable by NMC with respect to amount due by the Developer towards the debt and subordinated debt under the Financing Documents, as the case may be.

92. **Transfer Date** means the date on which this Agreement and the Development and Sales Rights hereunder is terminated by a Termination Notice or by afflux of time or on signing of the sale agreement with the buyers, whichever is earlier.

1.2 Interpretations

In this Agreement, unless the context otherwise require:

a) Any reference to a statutory provision shall include such provision as is from time to time modified or amended or re-enacted or consolidated so far as such modification or re-enactment or consolidation applies to, or is capable of being applied to any transaction entered into hereunder;

b) References to Applicable Laws shall include the laws, acts, rules, regulations, guidelines or byelaws, which have the force of law in the Union of Indiafrom time to time as may be amended, modified, supplemented, extended or re-enacted.

c) The words importing singular shall include plural and vice versa;

d) The headings are for the convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement.

e) Term and words beginning with capital letters and defined in this Agreement including the Schedules shall be construed accordingly;

f) The words "include" shall be constructed without limitation;

g) Any reference to day shall mean a reference to a calendar day;

h) Any reference to week shall mean a period of time between the same day in successive calendar weeks as may be applicable to the context.

i) Any reference to month shall mean a period of time between the same dates in successive calendar months as may be applicable to the context.

j) Any reference to year shall mean a period of time between the same dates of the same Calendar month in successive calendar years as may be applicable to the context.

k) The schedules to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement.

l) Any reference at any time to any agreement, deed, instrument, or document of any description shall be construed as reference to that agreement, deed, instrument, license, or other document as amended, varied, supplemented, modified or suspended at the time of such reference;

m) Reference to recitals, articles, sub-articles, clauses, or schedules in this Agreement shall, except where the context otherwise requires, be deemed to be references to recitals, articles sub-articles, clauses and schedules of or to this Agreement;

n) Any agreement, consent approval, authorization, notice, communication, information or report required under or pursuant to this Agreement from or by any Party shall be valid and effective only if it is in writing under the hands of duly authorized representative of such Party as the case may be, in this behalf and not otherwise;

o) Time shall be of the essence in the performance of the Parties' respective obligations. If any time period specified herein is extended, such extended time shall also be of the essence.

p) Any reference to any period commencing "from" a specified day or date and "till "or "until" a specified day or date shall include both such days or dates;

q) The damages payable by either Party to the other of them, as set forth in this Agreement, whether on per deem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the "**Damages**");

r) In case ambiguities or discrepancies within this Agreement, the following shall apply:

i. Between two Articles of this Agreement, the provisions of specific articles relevant to the issue under consideration shall prevail over those in other articles;
ii. Between the Articles and Schedules, the Articles shall prevail;

s) This Agreement, and all other Agreements and documents forming part of this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof shall, in the event of any conflict between them, be in the following order:

(a) This Development Agreement;
(b) RFP Document &its volumes along with the Corrigenda & Addenda issued.
(c) All other agreements and documents forming part hereof;

i.e. the agreement at (a) above shall prevail over the agreements and documents at (b) and (c) above and (b) shall prevail over all documents in (c) above.

t) In case of ambiguities or discrepancies within this Agreement, the following shall apply:

i. Between two or more Clauses of this Agreement, the decision of the Commissioner, NMC shall prevail and shall be final and binding on the parties.

ii. Between the Clauses of this agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;

iii. Between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;

iv. Between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and

v. Between any value written in numerals and that in words, the latter shall prevail.

Article 2. Conditions Precedent to the Agreement

2.1 Conditions Precedent

The respective rights and obligations of the Parties under this Agreement shall be subject to the satisfaction in full of the conditions precedent specified in this Clause 2(the "**Conditions Precedent**").

The Developer may, upon providing the Performance Security to the NMC by notice require the NMC to satisfy the Conditions Precedent set forth in this Clause 2.2 within period of 60 (sixty) days of the Effective Date, and the obligations of the NMC hereunder shall be deemed to have been performed when NMC shall have hand over to the Developer the peaceful possession of the Project Site free from all encumbrances excluding utilities.

This Development Agreement shall not be effective in case of the non-fulfillment of Conditions Precedent by the Parties as mentioned below:

2.2 Condition Precedent for Developer and NMC

Save as otherwise provided in this Agreement, the respective rights and obligations of the Parties shall be subject to the satisfaction in full of the conditions precedent specified in this Clause 2.

a) In case of Developer

The Conditions Precedent required to be satisfied by the Developer prior to the Appointed Date within 60 days of the Effective Date shall be deemed to have been fulfilled when the Developer, should have:

i. Signed this Development Agreement within 21 days from Letter of Award.

ii. Made the payment of the necessary Stamp Duty on signing of this Development Agreement.

iii. Signed the Integrity Pact.

iv. The Developer shall have executed and delivered to the Authority the letter acknowledging license of Project Site in the format set out in Schedule 3;

v. Delivered to NMC, a Bank Guarantee from a nationalized bank, in favor of NMC, in the form as set out in **Schedule 4** and in accordance with Article 10 ("**Performance Security**") for a sum of Rs. 2.00 Crores (Rupees Two Crores Only) for due and punctual performance of its obligations hereunder;

vi. The Developer should have paid the Upfront Premium as specified in the RFP.

vii. Submitted certified true copies of all Project Agreements, in particular, the EPC Contract, O&M Contract (with an entity having the requisite O&M experience) as well as the shareholders funding agreement among the consortium partners NMC;

viii. The Developer submits a copy of the detailed funding plan for completion of the Project, which shall include the equity and debt contribution by the consortium partners in the Developer entity, the copies of the sanction letter/term sheets in relation to the financial assistance/ loans/debts sanctioned/committed by the lenders.

ix. Submitted to the NMC, certified true copy of its constitution documents and a legal opinion from the legal counsel of the Developer with respect to the capacity and authority of the Developer to enter into this Development Agreement and the enforceability of the provisions thereof;

x. Delivered to the Authority a confirmation from the Selected Bidder / each of the Consortium members, in original, of the correctness of their Representations and Warranties set forth in Article 8.

xi. Prepared, finalized and procured approval of the Authority for the DPR in line with the approved Drawings & Designs

xii. Enter into an agreement with a O&M agency in accordance with the terms and conditions of RFP

Provided that upon a request in writing by the Developer, NMC may, in its sole discretion, waive any of the Conditions Precedent set forth hereinabove. For the avoidance of doubt, the NMC may, in its sole discretion, grant any waiver hereunder with such conditions as it may deem fit.

b) In case of NMC

i. NMC shall within 60 days from the Effective Date handover to the Developer peaceful physical possession of the Project Site;

ii. Permit the Developer to the Project Site along with right to use all Easementary Rights, in accordance with the terms and conditions of this Agreement, provided that the Developer shall have prior to entering the site given a bank guarantee to the Authority as Performance Security in accordance with the terms hereof;

iii. Appoint an Independent Engineer as per the provisions of this Agreement.

Provided that upon a request in writing by NMC, the Developer may waive any of the Condition Precedent set forth herein above.

Upon satisfaction in full of all Conditions Precedent for a Party, the other Party shall forthwith issue to such Party a certificate of compliance with Conditions Precedent **(the "Certificate of Compliance").**

2.3 Liquidated Damages for Delay by NMC

In the event that (i) NMC does not procure fulfillment of any or all of the Conditions Precedent set forth in this Article 2 Clause 2.2 b within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by the Developer or due to Force Majeure, NMC shall pay to the Developer Damages an amount calculated at the rate of 0.25% of the Performance Security for each week's delay until the fulfillment of such Conditions Precedent, subject to a maximum of 10% (ten percent) of the Performance Security.

2.4 Liquidated Damages for Delay by Developer

In the event that (i) the Developer does not procure fulfillment of any or all of the Conditions Precedent set forth in this Article 2 Clause 2.2 a within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by NMC or due to Force Majeure, the Developer shall pay to NMC Damages in an amount calculated at the rate of 1% of the of the Performance Security for each week's delay until the fulfillment of such Conditions Precedent, subject to a maximum of 10% (ten percent) of the Performance Security.Whenever such damages are payable to NMC, the Developer shall replenish the Bank Guarantee within a period of 7 (seven) days.

Provided that such liquidated damages shall not be payable by the Defaulting Party where such delay in the fulfillment of the Conditions Precedent is a result of breach of this Agreement by the other Party or due to Force Majeure. Further provided that where the non- compliance of Conditions Precedent by the defaulting party continues after payment of such liquidated damages, the non-defaulting party shall terminate this Agreement forthwith.

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2.5 Non Fulfilment of Conditions Precedent

(i) In the event of failure by any Party to procure compliance with any of the Conditions Precedent as per the provisions of this Article 2 and the other Party have not waived any of the conditions (partially or absolutely), the Agreement shall cease to have any effect as of that date.

(ii) In the event of the Agreement not coming into effect on account of the Developer not fulfilling the Conditions Precedent then, NMC shall forfeit the Bid Security and/or the Performance Security.

(iii) In the event of the Agreement not coming into effect on account of the NMC not fulfilling any of its Conditions Precedent then the Bid Security and/or the Performance Security, as the case may be, shall be returned to the Developer.

(iv) Notwithstanding anything contained in this clause, the Parties may mutually decide to extend the time period for the fulfillment of the Conditions Precedent.

The Parties shall notify each other in writing at least once a month on the progress made in satisfying the Conditions Precedent. Each Party shall promptly inform the other Party when any Condition Precedent for which it is responsible has been satisfied.

Article 3. GRANT OF RIGHTS

3.1 Grant of Development & Sales Rights

Subject to and in accordance with the terms and conditions set forth in this Agreement, Authority hereby grants to the Developer and the Developer hereby accepts the license for a period of 60 months commencing from the Appointed Date for the Construction activities and for the Project built-up space, with the right to operate & maintain and undertake marketing & sales of the Project during the subsistence of this Agreement ("Project Rights").

Subject to and in accordance with the terms and condition set forth in this Agreement, Applicable Laws and the Applicable Permits, NMC hereby grants to the Developer for development and sales rights set forth in this Agreement including exclusive right, license and authority to design, engineer, procure, finance, construct, install, commission, operate & maintain, market and undertake sales of the Project Facilities on the Project Site subject to the and Good Industry Practices and to exercise and/or enjoy the rights, powers, benefits, privileges, authorizations and entitlements to :

a) Right of way, access and license to the Project Site for the purpose of and to the extent conferred by the provisions of this Agreement.

b) Perform and fulfil all of the Developer's obligations under and in accordance with this Agreement;

c) To be responsible for removing any encroachments on the Project site during and prior to transfer to NMC at the end of the development period

d) To design, engineer, finance, procure, construct, administer, install, commission, operate and maintain the Project Facilities either itself or through such person as may be selected by it;

e) Bear and pay all costs, expenses and charges in connection with or incidental to the performance of the obligations of the Developer under this Agreement including Capital Expenditure;

f) Upon completion of the Construction Works for the Project Facilities, to manage, operate and maintain the same either itself or through such person as may be selected by it, provided that the ultimate obligation and responsibility for the performance of this agreement shall continue to vest with the Developer till the handover of the property to respective buyers;

g) Enter into a tripartite sale agreement between NMC, the Developer and the buyer.

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h) To demand, collect and appropriate sales revenue amounts from buyers liable for payment of such amounts for the purchase of any of the components of the Project & any part thereof.

i) To borrow or raise money or funding required for the due implementation of the Project without creating a mortgage, charge or create lien on the Project land, which shall for all times be in the name and ownership of NMC and the Project Facilities which are to be marketed and sold.

j) To obtain the utilities required for enabling the construction and operation of the Project Facilities;

k) Exclusively hold, possess, and control the Site, in accordance with the terms of the Development Agreement;

l) Neither assign, transfer or sublet or create any lien or Encumbrance on this Agreement, or the Development Rights hereby granted or on the whole or any part of the Project nor transfer, lease or part possession thereof; save and except as expressly permitted by this Agreement; and

m) To transfer the Project Facilities to the buyers on signing of Sale Agreement, in accordance with the provisions of this Agreement;

n) To undertake all activities for conforming to RERA compliance including maintaining the books of accounts and compulsory registration with MAHARERA.

o) To apply for and obtain all requisite approvals and consents including from all Governmental Authorities concerned, for the development of Project Facilities.

p) Any part of the work (but not the whole of works) may be sub-contracted by the Developer through construction contracts/ O&M Contract, provided always that notwithstanding the construction contracts/ O&M Contract, the Developer retains overall management, responsibility, obligation and liability in relation to the sub-contracted work. Any such subcontracting shall not relieve the Developer from any of its obligations in respect of the provision of such work under this Agreement. It is clarified that Developer shall remain liable and responsible for any acts, omissions or defaults of any subcontractor, and shall indemnify the Authority in respect thereof.

In consideration of the rights, privileges and benefits conferred upon by NMC and other good and valuable consideration expressed herein, the Developer hereby accepts and agrees and undertakes to perform/ discharge all of its obligations in accordance with the provisions hereof.

3.2 Development and Sales Period

The Development and Sales Period shall mean the period of 60 (sixty) months inclusive of the construction period of (18) months commencing from the Appointed Date. Provided that in the event of Termination, the Development and Sales Period shall be limited to the period commencing from the Appointed Date and ending with the Termination Date. The Developer shall complete the Construction Works within a maximum period of **(18) months** commencing from the Appointed Date. The Developer herein is given the license in respect of the land parcel and measuring **approximately 3300 square meters**, for development of the Project as per the prevailing Floor Space Index **(FSI)** for the entire Project Site.

The benefit of any additional FSI in future in light of the Project being in the Metro Corridor and as per the Transit Oriented Development (ToD) policy shall accrue equally to NMC and the Developer.

In case of ToD being triggered, the Developer shall be entitled for additional development area.

Accordingly the Developer would get additional built up area. The revenue earned (benefit) from such additional development shall be shared equally between NMC and the Developer. Such additional revenue shall be over and above the amount quoted by the successful bidder.

The decision regarding the availing of additional FSI shall be taken by the successful bidder within the construction period allowed i.e. 18 months.

3.3 Acceptance of Development and Sales Rights

In consideration of the rights, privileges and benefits conferred upon the Developer and other good and valuable consideration expressed herein, the Developer accepts the Development and Sales Rights hereby granted for the implementation of the Project The Developer shall commence the Construction Work for implementation of the Project only after the receipt of the Commencement Certificate from NMC and the Developer agrees undertakes to perform / discharge all of its obligations in accordance with the provisions hereof.

3.4 Transfer of rights on Project Site

The ownership of the Project Site is and shall always remain with NMC and shall not be transferred to the Developer. NMC shall grant license to the Developer to enter and use the Project Site for the purpose of implementation of the Project. NMC shall, by virtue of this agreement, only grant development and sales rights to the Developer to execute and implement the Project in

accordance with this Agreement at its cost and risks. For avoidance of doubts, it is hereby clarified that the Developer shall not be allowed, in any case, to sell, hypothecate, mortgage or create any lien or encumbrances on the project land. The Developer shall transfer the Project Facilities to NMC, free from all encumbrances and free of any cost, upon the Termination of the Development Agreement or due to efflux of time on as is where is basis.

Article 4. PROJECT SITE

4.1 Handover of Project Site

a) NMC shall within 60 days from the LOA, handover to the Developer the peaceful physical possession of the Project Site, for the purpose of implementation of the Project.The Developer shall pay to NMC by way of Upfront Premium (the "**Upfront Premium**"), a sum of Rs. 5 crores (Rupees Five Crores). The land constituting the Site shall be handed over to the Developer under this Development Right, for the sole purposes of performance, execution and implementation of the Project. The Developer is responsible for payment of all applicable taxes, including property tax on the site till handing over of the Project to the society or NMC as the case maybe.

b) Upon the Project Site being handed over pursuant to the preceding sub-article (a), the Developer shall, subject to the provision of Article 4, have the right to enter upon, occupy and use the same and to make at its cost, charges and expenses such investigations, construction, development and improvements in the Project Site as may be necessary or appropriate to implement to the Project in accordance with the provision of this Agreement.

c) Prior to commencement of the construction activities, Developer is required to get approval of the detailed building development plan submitted as part of Detailed Project Report from NMC, on the basis of which the Developer shall develop the project landsite.

d) The Developer shall ensure optimum utilization of the Site and land available and shall not use the same for any purpose unconnected or which is not incidental to the Project or related activities.

4.2 Rights, Title and Use of Project Site

a) The Developer shall have the right to use of the Project Site in accordance with the provisions of this Agreement and for this purpose, it may regulate the entry into and use of the same by third parties. It is clarified that NMC has granted to the Developer, the development and sales rights in respect of the Project Site for the purpose of construction, operations, maintenance and sales of the Project Facilities i.e. A Shopping/Commercial Complex Facility.

b) The Developer shall be permitted to enter upon the Project Site for the purpose of design, develop, construct, operate and maintain and Sales of the components of the Project Facilities. The right assigned to the Developer with respect to the Project Site is purely on right to use basis, i.e. Developer is not allowed to further sublease or sub-let the project land to any third party or create any third party interest on the Project landsite, save as otherwise stated in

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this Agreement. This clause, however, shall not limit the Developer's right for development of the Project Facilities on the Site.

c) The Developer shall be authorized to carry out activities at the Project Site in accordance with the provisions of this Agreement and will be authorized to collect sales revenue generated from development and sales of such developed shopping/commercial facilities as part of the Project through third parties subject to necessary certificate being given by NMC and the completion certificate issued by NMC on the recommendation of its Independent Engineer/Monitoring Agency.

d) The Developer shall have the rights, as it may deem fit, to collect from such persons entering and using the Project Facilities, Fees, usage charges, maintenance charges and any other similar charges during the Development and Sales Period subject to prior approval of such charges from NMC.

e) The Developer shall not part with or create any Encumbrance on the whole or any part of the Project Facilities, including the Project Site save and except as set forth and permitted under this Agreement.

f) The Developer hereby irrevocably appoints NMC (or its nominee) to be its true and lawful attorney, to execute and sign in the name of the Developer a transfer or surrender of the development and sales rights granted hereunder at any time after the Development and Sales Period has expired or has been terminated earlier in terms hereof, a sufficient proof of which will be the declaration of any duly authorised officer of NMC.

g) The Developer shall allow access to and use of the Project Site for laying/ installing/maintaining telegraph lines, electric lines or for such other public purpose as NMC may specify provided that such access or use shall not result in Material Adverse Effect and that NMC shall, in the event of any physical damage to the Project facilities on account thereof, ensure that the Project Facilities are promptly restored by such utility, at its own cost and expenses. Provided further, that to the extent such access and used allowed by the Developer affects the performance to any of its obligations hereunder, the Developer shall not be in breach of its obligations nor shall it incur/suffer any liability on account thereof.

h) The Developer shall allow free access to the Project Site at all times to the authorised representatives and vehicles of NMC, Lenders and PMC and for the persons and vehicles duly authorised by any Government Agency to inspect the Project or to investigate any matter within their authority, and upon reasonable notice, the Developer shall provide to such persons reasonable assistance necessary to carry out their respective duties and functions.

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4.3 Peaceful Possession

a) NMC hereby warrants that The Project Site together with the necessary right of way, way-leaves is vested with NMC

b) The Developer shall, subject to complying with the terms and conditions of this Development Agreement, remain in peaceful possession of the Project Site. In the event the Developer is obstructed by any Person claiming any right, title or interest in or over the Project Site or any part thereof or in the event of any enforcement action including any attachment, distrait, appointment of receiver or liquidator being initiated by any person claiming to have any interest in/charge on the Project Site or any part thereof, then NMC shall if called upon by the Developer, defend such claim and proceeding also keep the Developer indemnified against any consequential loss or damages which the Developer may suffer, on account of any such right, title, interest or charge. However, even in such case the claim against NMC shall only be restricted only up to the Fixed Premium received at the time of signing of Development Agreement.

4.4 Protection of Site from encroachments

During the Development Period, the Developer shall protect the Site from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Contractor or other person claiming through or under the Developer to place or create any Encumbrance or security interest over all or any part of the Site or the Project Facilities, or on any rights of the Developer therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement.

4.5 Geological and Archaeological finds

It is expressly agreed that mining, geological or archaeological rights do not form part of the lease rights granted to the Developer under this Agreement and the Developer hereby acknowledges that it shall not have any mining rights or interest in the underlying minerals, fossils, antiquities, structures or other remnants or things either of particular geological or archaeological interest and that such rights, interest and property on or under the Site shall vest in and belong to NMC or the concerned Government Agency. The Developer shall take all reasonable precautions to prevent its workmen or any other person from removing or damaging such interest or property and shall inform NMC forthwith of the discovery thereof and comply with such instructions as the concerned Government Instrumentality may reasonably give for the removal of such property.

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4.6 Felling of trees

NMC shall assist the Developer in obtaining the Applicable Permits for felling of trees to be identified by the Developer for implementation of the Project, if and only if such trees cause a Material Adverse Effect on the construction, operation or maintenance of the Project. The cost of such felling shall be borne by the Developer, and in the event of any delay in felling thereof for reasons beyond the control of the Developer, it shall be excused for failure to perform any of its obligations hereunder if such failure is a direct consequence of delay in the felling of trees. For the avoidance of doubt, the Parties hereto agree that the felled trees shall be deemed to be owned by NMC and shall be disposed in such manner and subject to such conditions as NMC may in its sole discretion deem appropriate.

4.7 Compensatory Afforestation

Compensatory Afforestation shall be carried out by the Developer as per the guidelines of The Compensatory Afforestation Fund Management and Planning Authority (CAMPA) Act, 2016 and under the guidance of the Garden Department, NMC and the Independent Engineer.

Article 5. Independent Engineer/Monitoring Agency

5.1 Appointment

a) NMC has appointed M/s. Architect Hafeez Contractor, Nagpur as its Project Management Consultant for the Project and who shall be the Independent Engineer cum Monitoring Agency of NMC for the activities of the Developer and its PMC for this project. As per the agreement between NMC & the Independent Engineer M/s. Architect Hafeez Contractor, professional fees at the rate of 2% of total cost of construction and development plus additional GST (difference between prevailing rate on the date of signing original MoU in 2012 and current rate) for the Post Tender activities shall be payable by Developer to the PMC. The Bill of the NMC Independent Engineer shall be approved by NMC (Payment of NMC Independent Engineer Fees). The fees of the Independent Engineer to be paid by the Developer shall be over and above the amounts payable to NMC. The fees of the Independent Engineer shall be deposited by Developer in the NMC bank account.

b) The Developer may appoint its own Project Management Consultant ("**PMC**") for the Project and shall execute a PMC Contract for its appointment, a copy of which shall be provided by the Developer to NMC.

c) The Developer do hereby acknowledge the rights and obligations of Independent Engineer contained in the Independent Engineer Contract and undertakes to comply facilitate performance of its obligations by Independent Engineer.

d) The Developer shall provide the Independent Engineer with complete access to the Technical Information as would, in the reasonable option of the Independent Engineer, be necessary for the determination and performance of the services by Independent Engineer as set forth in Article 5.2 below and as more specifically set out in Independent Engineer Contract.

e) The Remuneration payable to the Independent Engineer shall be borne by the Developer.

f) All project related documents, drawings, plans etc. shall be accessible to the NMC Independent Engineer by the Developer, its PMC and any other entity eligible for it.

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5.2 Functions of NMC Independent Engineer

a) Review of Project drawings and construction milestones submitted by the Developer in conformance with the Project construction plan in the DPR; Independent Engineer shall undertake a detailed review of the Drawings to be furnished by the Developer along with supporting data for conformity or otherwise of such Drawings with the Scope of the Work and specifications and standards for the Works. Independent Engineer shall complete such review and send its comments/observations to NMC and the Developer within 15 (fifteen) days of receipt of such Drawings.

b) Review, inspection and monitoring of Construction Works. In the event that the Developer fails to achieve any of the construction milestones as per Clause 6.4.4, Independent Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Independent Engineer determines that completion of the Project Facilities is not feasible within the time specified in the Agreement, it shall require the Developer to indicate within 10 (ten) days the steps proposed to be taken to expedite progress, and the period within which the Construction Works would be completed.
Indicative Work Plan and Methodology has been captured in Volume 3: Design Proposal.

c) For determining that the construction conforms to construction requirements, Independent Engineer shall require the Developer to carry out, or cause to be carried out, tests on a sample basis, in accordance with Good Industry Practices for quality assurance.

d) Review the test reports on completion of construction and issuing Completion/Provisional Certificate;

e) Review, inspection and monitoring of operations and maintenance including books of accounts of the Developer and require the copies of relevant extracts of books of accounts, duly certified by the Statutory Auditors, to be provided to the NMC for verification;

f) Determining as required under the Agreement the cost of any works or services or their reasonableness;

g) Determining as required under the Agreement, the period or any extension thereof, for performing any duty or obligations;

h) Upon reference by NMC, Independent Engineer shall review and comment on the contracts entered into by the Developer for the purpose of implementation of the Project;

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i) Independent Engineer shall review the monthly progress report furnished by the Developer and its PMC and send its comments thereon to NMC and the Developer within 7 days of receipt

j) Assisting the parties in case of any dispute

k) Independent Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice

l) The Independent Engineer shall determine and certify whether the Developer has completed the Project Facilities as per the approved DPR, Work Plan & Methodology and standard industry practices and issue a Project Completion Certificate on the completion of the Project Facilities.

m) The Project Facilities will be deemed complete under the following conditions

I. The Project Facilities will have to comply with approved Detailed Project Report.

II. The Project Facilities will have all the permits and clearances to be obtained.

III. The Project Facilities would have obtained final and unconditional waivers from all Contractors.

IV. The Project Facilities have obtained all evidence of completion as may be required by the Lenders under the Financing Documents.

n) The Independent Engineer will carry out an assessment of the Project in terms of the progress done every 3 (three) months or on request of NMC.

o) Issuance of certificates such as Compliance, Completion etc.

5.3 Right of access to Information to the Independent Engineer

Upon a reasonable notice, the Developer shall grant and procure that all Contractor(s) shall grant to the agents, employees and other representatives of NMC and to the Independent Engineer complete access to the construction and developmental activities for the Project and records maintained by the Developer.

5.4 Decision of the Independent Engineer

The decision of the Independent Engineer regarding any technical/designing matter of the Project shall be final and binding on NMC and the Developer.

Article 6. Obligations of the Developer

6.1 Developer's Obligations

6.1.1 Subject to and on the terms and conditions of this Development Agreement, the Developer shall, at its own cost and expense, procure finance for and undertake the design, engineering, procurement, construction, operation, maintenance, marketing and sales of the components of the Project and observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.

6.1.2 The Developer shall at its own cost and expenses:

a) Obtain all the Applicable Permits and approvals from appropriate Government Agency, as may be required for performance of its Obligations under this Agreement. The Developer shall be responsible for and shall comply with the terms and conditions subject to which Applicable Permits have been issued.

b) Shall assist NMC in obtaining approval for the Project sanction, if any, required from the Government of Maharashtra or any other Competent Authority. Such approval may be necessitated after issuance of the LoA but before signing of the Development Agreement.

c) For any relaxations sought by the Developer with regard to the preparation and approval of the Construction Drawings as per the prevailing DCR and ADTP Department of NMC, the decision of the Commissioner shall be final and binding. All relevant charges for obtaining such relaxations shall be borne by the Developer and NMC shall incur no liability in this regard. If any relaxation from the norms of the DCR/ADTP is allowed and this enhances the revenue earning of the Developer, such benefits of the enhanced revenue shall be shared equally with NMC, failing which such relaxations would be cancelled.

d) make, or cause to be made, necessary applications to the relevant Government Agency with such particulars and details as may be required for obtaining Applicable Permits, comply with all applicable requirements, guidelines etc. laid down under the Applicable Laws and and obtain and keep in force and effect such Applicable Permits in conformity with the Applicable Laws;

e) Shall not mortgage or create any Encumbrance or lien on the Project Land or the Project Facilities.

f) Ensure that the development of the Project Facilities is in accordance with the approved Detailed Project Report (DPR) and Detailed Drawings & Designs and that adjacent property (ies) should not be damaged in any manner. If the adjacent property (ies) is affected or damaged, then the Developer shall restore it to the original state at its own cost;

g) Procure and maintain in full force and effect as necessary, proprietary rights, licenses, agreement and permissions for materials, methods, processes and systems used in or incorporated in the project;

h) Make efforts to maintain harmony and good industrial relation among the personnel employed in connection with the performance of its obligations and shall be solely responsible for compliance with all labor laws and solely liable for all possible project claim and employment and related liabilities of its staff employed in relation with the Project and hereby indemnifies against any claims, damages, expenses or losses in this regards and that in no case and shall for no purpose shall NMC be treated as employer in this regard;

i) Be solely liable for all possible losses and claims in relation to any environmental damages caused during the development of the Project Site and here by indemnifies NMC against claims, damages, expenses or losses in this regards;

j) Make its own arrangement for procuring materials and observe, fulfill and comply with the conducted Environmental Impact Assessment (EIA) study as required for the project.

k) Ensure that the Project Site remains free from any encroachments and in the event of any encroachment or occupation on any part thereof, the Developer shall report such encroachment or occupation forthwith and take all steps necessary to remove encroachments that are at the Project Site subsequently;

l) Allow access to the project Site to authorized representatives of NMC, its Independent Engineer and any Government Agency for the purposes of ascertaining compliance with terms, covenants and conditions of this Agreement.

m) Pay all applicable charges pertaining to the Project Site and the Construction Works being undertaken on the Project Site, including utility charges relating to the Project Site.

n) Undertake Operation and Maintenance for the Project during the entire development and sales period in accordance with O&M Requirements which in turn shall have to be followed diligently by the Developer. Non-compliance on the same ground on a consistent basis for a period of more than 90 days will be

considered a major breach of the agreement and invite action as per stipulated conditions of the agreement.

Detailed Guidelines for O&M has been provided in the Volume 3: Design Proposal.

o) To develop the proposed facility as a Green building with smart features and the bidder shall get it certified from relevant Indian authorities' viz. IGBC, GRIHA etc.

p) Make provision for generation of power through use of Solar panels at the Project Facilities.

q) To undertake all activities for conforming to RERA compliance including maintaining the books of accounts and compulsory registration with MAHARERA.

r) Make provision for development of an Electric Charging Station within the Project facilities.

s) The said Project is to be integrated with the Jaiprakash Nagar Metro Station and hence a constructed space on the fourth floor of the said Multi Utility Complex needs to be earmarked and handed over to NMC for a ticketing office of Metro Station. The Developer shall coordinate with the Mahametro for finalizing the location, dimensions and other technical details of the proposed ticketing office. The Developer shall obtain the approval of Mahametro for the drawings and specifications for such ticketing office from Mahametro. On final approval the same should be submitted to NMC. On completion of construction of the ticketing office, the same shall be handed over to NMC for further handover to Mahametro.

t) Would be responsible for attending and rectifying any Project/construction related grievances of the buyers' for a period of 10 years from the date of signing of Sale Agreement and handing over of property.

u) Would be responsible for attending to any grievances arising during construction as a result of changes in the structural plan of the Project.

v) Should plan and develop mechanical parking facilities at the Project Site.

w) Developer can utilize the rooftop of the proposed building for commercial purpose such as setting up of rooftop restaurant. Such development shall be subject to approval from NMC and NMC may execute a supplementary agreement with the Developer for such additional development.

x) Ensure and procure that its Subcontractors comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Developer's obligations under this Agreement;

y) Surrender the Project to the Authority upon expiry of the Contract Period or upon the Termination of this Agreement, in accordance with the provisions thereof for any reason whatsoever;

z) Deposit the revenue, accrued from the appropriate Contractual Arrangements as per this Agreement, in the NMC Bank Account, till the Surrender Date;

aa) The Developer shall submit a "Structural Safety Certificate" of the proposed Facility from the competent institution such as VNIT before the commencement of commercial activities. The Developer shall ensure that the certificate is also counter certified/ signed by the Independent Engineer.

bb) Shareholding Lock-in Obligations

Shareholding obligation for Single Entity

The Selected Bidder shall hold not less than 51% (Fifty One percent) or more of the Equity of the SPV till completion of the Sales of the complete Project.

Shareholding obligation for Consortium

a) The Developer shall commit that the Lead Member and each of the other members whose experience has been evaluated at this RFP stage, shall subscribe at least 51% (fifty per cent) or more and 26% (twenty six percent) or more respectively, of the paid up and subscribed equity of the SPV till completion of the Sales of the complete Project.

Notwithstanding anything to the contrary, at no stage, no change in the shareholding patterns shall be made by the Developer in the Consortium without obtaining prior approval from the Authority. On an application made for the purpose, the Authority may permit the change of equity components/ shareholding patterns provided the Authority is satisfied that the proposed changes shall be in the interest of the implementation of the Project in future and would not be detrimental to any of the rights or interests of the Authority and any of the confirming authorities. However, no such change in the shareholding pattern shall be permitted by the Authority, which would make the Consortium Members or Associates or the Developer non-compliant with sub-clauses above.

b) The above restriction also applies to the direct or indirect transfer of control of legal or beneficial ownership of shareholders of the Developer. The expression "control" a shall have the meaning ascribed thereto in the Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeover)

Regulations, 2011 or any statutory re-enactment thereof as in force as on the date of acquisition of control.

Obligations Relating to Change in Ownership

The Developer shall not undertake or permit any Change in Ownership, except with the prior approval of NMC.

Specific Obligations

1. **Reserved Ticketing Office for Mahametro on 4th Floor.**

   The said Project is to be integrated with the Jaiprakash Nagar Metro Station and hence a constructed space on the fourth floor of the said Multi Utility Complex needs to be earmarked and handed over to NMC for a ticketing office of Metro Station. The Developer shall coordinate with the Mahametro for finalizing the location, dimensions and other technical details of the proposed ticketing office. The Developer shall obtain the approval of Mahametro for the drawings and specifications for such ticketing office from Mahametro. On final approval the same should be submitted to NMC. On completion of construction of the ticketing office, the same shall be handed over to NMC for further handover to Mahametro.

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6.2 Pre-construction Obligations

6.2.1 Submission and Approval of Detailed Project Report

a) The Developer shall, before commencement of Construction Works, have requisite organization and designate/appoint suitable officers/ representatives as it may deem appropriate to supervise the Project, to liaise with the Independent Engineer/ NMC and to be responsible for all necessary exchange of information required pursuant to this Agreement;

b) undertake, do and perform all such acts, deeds and things as may be necessary or required before commencement of construction under and in accordance with this Agreement, the Applicable Laws and Applicable Permits;

c) The Developer shall, at its own cost and subject to the term and conditions of this Agreement, prevailing bye laws and DCR, prepare a construction plan consistent with the DPR for construction of the Project Facilities and submit the same to NMC for its approval within 30 days from the Appointed Date.

d) NMC shall, within a period of 30 days from submitted DPR, review and approve the same, or shall communicate the changes, revisions and modification in the DPR. The Bidder shall make the changes, revisions and modification within 15 days from such receipt of the comment by NMC /Independent Engineer and shall resubmit the DPR to NMC for its approval. If however, NMC delays in responding towards the DPR and Drawings & Designs submitted for more than 45 days from the receipt of the DPR then the Developer will be entitled to get an extension of the Development and Sales Period, equivalent to the number of days of delay after 30 days period, subject to the discretion of NMC.

e) NMC shall, within a period of 15 days from such resubmission, ascertain whether the Developer has carried out the changes, revision and modification and accordingly accord its approval to the construction Plan and issue a Commencement Certificate to enable the Developer Construction Works.

f) The Developer can commence the Construction Works only after the receipt of the Commencement Certificate. The Developer shall adhere to the approved construction plan and Standards and Specifications mentioned in Schedule 5 to this Agreement. However, if the Developer desires to deviate from the approved construction plan for the Project Facilities, then it shall seek a prior written permission from NMC.

g) The contents of the Detailed Project Report and Drawings & Designs shall include but not necessarily restricted to:

- Existing characteristics of the Project Site

a. Physical characteristics and natural resources
b. Demography
c. Connectivity
d. Facilities
e. Infrastructure

- Land requirement & demarcations for
  a. Commercial areas
  b. Open spaces
  c. Transport and communication
  d. Water bodies
  e. Movement Plan and connectivity with the adjoining Metro Station.
  f. Parking
- Development Aim and Objectives
- Development Proposal
- Construction Plan and Technical Feasibility
- Financial Feasibility and Resource mobilization
- Phasing of the development
- Development mix
- Safety requirement
- Operation and Maintenance Requirements
- Schedule of the materials to be used for construction.
- Detailed Cost Estimates along-with justifications.
- Strategy for Transfer of the facility to NMC in reasonably good condition at the end of the contract period

h) The Developer shall adhere to the approved Detailed Project Report at all times and shall not deviate from the approved Detailed Project Report, without the prior written consent of NMC.

i) The Developer shall submit to NMC a monthly progress report for the progress of implementation of the Project during previous month, on or before 10th Day of the month, commencing from the Appointed Date till the completion of the Project Facilities.

j) Make necessary arrangements with the relevant Government Instrumentality for timely provision of water, electricity, sewage and disposal facility for the construction debris and other utility services at the Project Site as may be required from time to time during the Construction Period including but not limited to conducting the tests as envisaged under this Agreement. The Developer shall not hold NMC responsible for the same or any delay in the provision of the same by any of the Government Instrumentality;

6.3 Project Construction Obligations

6.3.1 Construction of Project Facilities

a. The Developer shall submit a Project Completion Schedule and adhere to such the Project Completion Schedule and achieve COD on or before the Scheduled Project Completion Date. In the event the Developer fails to achieve the COD as per the Scheduled Project Completion Date, unless such failure has occurred due to Force Majeure or for reasons solely attributable to the Authority, the Developer shall pay as damages to NMC, a sum calculated at the rate of 10% interest on the balance amount payable to NMC as on the date of COD, until such COD is achieved. This shall be recovered from the Performance Security Bank Guarantee on a weekly basis. Whenever such damages are payable to NMC, the Developer shall replenish the Bank Guarantee within a period of 7 (seven) days.

b. The Construction period is a period of 18 (Eighteen) months for the entire building but for this Clause 6.3.1 the period of 18 months shall be considered for payment of penalty for delay in achieving COD.

b. The Developer may undertake Construction Works by itself or through a Contractor possessing requisite technical, financial and managerial expertise / capability; but in either case, the Developer shall remain solely responsible to meet Standards and Specifications mentioned under Schedule 5 of this Agreement.

c. Make its own arrangements for procuring materials needed for the Construction Works and in accordance with the Applicable Laws and Applicable Permits.

d. The Developer shall adhere to all the construction requirements as per detailed construction plan and shall adhere to the standards and specification and other applicable standards / guidelines including BIS and Good Industry Practice.

e. The Developer shall promptly and in such sequence as is consistent with the construction plan, submit a copy of the drawings to the Independent Engineer for its review and comments. By submitting the drawings to the Independent

Engineer and NMC as above, the Developer shall be deemed to have represented that it has verified and determined that the drawings forwarded are in conformity with the approved construction plan.

f. Within 10 days of receipt of the drawings, the Independent Engineer shall review the same taking into account, inter-alia, comments of NMC, if any, thereon, and convey its comments / observations to the Developer on the conformity of drawings with construction plan. If the comments / observations of the Independent Engineer indicate that the drawings are not in conformity with the construction plan, such drawings shall be revised by the Developer to the extent necessary and resubmitted to the Independent Engineer for its further review. The Independent Engineer shall give its observations and comments, if any, within 10 (ten) days of receipt of such revised drawings, which shall be taken into account by the Developer while finalising the drawings.

g. Notwithstanding any review or failure to review by or the comments / observations of the Independent Engineer or NMC, the Developer shall be solely responsible for the adequacy of the drawings and their conformity with the construction plan, and shall not be relieved or absolved in any manner whatsoever of any of its obligations hereunder.

h. The Developer shall remove and disposed off all debris and extra construction and building material (sand, gravel, stone, rock, loose earth etc.) lying at the Project Site or generated during the implementation to the Project as instructed by the Independent Engineer/NMC at its own cost.

i. For the purpose of determining that Construction Works are being undertaken in accordance with the requirements mentioned under the Agreement, coordinate with the PMC and diligently carry out all necessary and periodical Tests in accordance with the instruction and under the supervision of the the Independent Engineer. The Developer shall maintain proper record of such tests and the remedial measures taken to cure the defects or deficiencies, if any, indicated by the Test results.

j. The Developer while carrying out the Construction Works in accordance with the Specification mentioned herein, shall ensure the usage of latest and best suitable technology for the implementation of the Project. The cost for such implementation shall be solely borne by the Developer.

k. The Developer shall ensure that no interference or damage is caused to the properties of NMC or any other Person during development;

l. Maintain parts of the Facility wherein the construction has been completed while the construction of the remaining part of the Facility is being undertaken.

m. For the purpose of the construction of the Project and any matters incidental thereto, during the Construction Period, divert the flow of traffic if such diversion or interruption is necessary for the efficient progress of the Construction Works and in case non-diversion would result in a Material Adverse Effect to the Project. The Developer shall be responsible for obtaining all prior written permissions required from the relevant Government Instrumentality for the diversion of any traffic.

n. Shall, subject to Applicable Laws be responsible for the shifting of utility facilities, with the assistance of the relevant Government Instrumentality, such as electric cable/lines, water pipelines, telephone cables, etc., present at the Project Site whether over or under the ground only if such utility would cause a Material Adverse Effect in the construction of the Facility. The Developer shall execute all necessary Documentation required in relation to the shifting of any utility and shall not hold NMC responsible for the same.

o. Within 90 (ninety) days of COD, the Developer shall furnish to the Authority three set of "as built" Drawings, 2 (two) hard copies and 1(one) soft copy, reflecting the Construction Works which have been completed as on COD, are in a manner as set out in construction plan and Standard and Specifications. The Developer shall also submit an as built survey illustrating the layout of the Project Facilities and setback lines, if any, of the building and structures forming part of Project Facilities.

p. The Developer shall comply with the provisions of the National Building Code, General Development Control Rules and other guidelines of principles of Good Industry Practice as a reasonable and prudent person, and follow the statutory requirements which are applicable to it from time to time during the development and operation of the Project.

q. The Developer shall take prior approval of NMC in case there is any change in the Project Facilities defined under the Project during the Development and Sales Period which may be considered by NMC on a case to case basis.

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6.3.2 Commencement & Completion Certificate

a. The Developer shall commence the construction of Project Facilities only when NMC has approved the construction plan consistent with the approved Detailed Project Report and Drawings & Designs and issued the Commencement Certificate to the Developer.

b. Upon completion of Construction Works, and the Independent Engineer determining the Tests to be successful, it shall forthwith issue to the Developer and NMC a certificate certifying completion of the Construction Works ("**Completion Certificate**") and date for commencement of commercial operation for the Project (the "**Commercial Operation Date**" or "**COD**"). The Project shall enter into commercial services on COD.

6.3.3 Rules for Development of the Project Facilities

The Project Facilities hereby proposed by the Developer to be so constructed shall comply with the following rules:

i. The maximum possible floor space index (FSI) as defined by the Development Control Regulation for Nagpur (hereinafter referred as "DCR"), shall be 2.5 subject to the Transit Oriented Development (TOD) policy governing the real estate development along the Metro Corridor.

ii. The maximum height up to which the Project Facilities can be constructed shall be in accordance with the applicable DCR and as allowed by the Airport Authority of India.

In case of any amendment or addition to the DCR as applicable, NMC shall have the final authority to approve the same for the Project.

The Developer has satisfied itself as to usability of the FSI of the Project Site before the signing of this Agreement. Therefore, non-usability of FSI for the Project Site would not be an excuse for the Developer not complying with its obligations.

Plan for approval

No work shall commence or carried out which infringes DCR or any other Applicable Law for the time being in force as regards to construction on the Project Site and until the said plans, elevations, sections, specifications and details have been so approved as aforesaid and thereafter the Developer shall not make any alteration or addition thereto unless such alteration and addition shall be in the manner as approved by the Independent Engineer earlier.

6.4 Project Operational Obligations

6.4.1 General

a) The Developer shall operate and maintain the Project Facilities in accordance with the Applicable Laws and Good Industry Practice during the Development and Sales Period and as per the approved O&M Requirements under the approved DPR. The O&M Requirements contained in O&M manual submitted by the Developer shall be revised and updated every year or in such shorter duration as may be required.

b) The Developer may undertake operations and maintenance of the Project Facilities by itself or through engaging third party contractors with requisite technical, financial and managerial expertise / capability.

c) The Developer shall obtain all the Applicable Permits and clearances from concerned authorities under the Laws and ensure legal compliance with Labor and other Applicable Laws at all times.

d) The Developer shall always display a Logo of Nagpur Municipal Corporation at prominent locations on the Project Facilities, preferably on the side facing the Main Road. Logos of NMC as well as of M/s Architect Hafeez Contractor should also be displayed prominently on any advertisement material, leaflets, brochures, sales documents etc. prepared by the Developer for the marketing & sales of the Project.

e) The Developer waives off any rights for an extension after the initial period of 60 (sixty) months is over and has to transfer the fully constructed project structures peaceful free of cost, free from any encumbrance or encroachments and in good working conditions.

Good conditions shall imply that the conditions of the facilities, utilities, electrical fittings shall not be of a lower quality than as prescribed in the Standards and Specifications at the time of commencement of the Project. Natural wear and tear & deterioration shall be considered but deliberate damages shall not be considered.NMC shall constitute a Committee under the chairmanship of the Hon'ble Municipal Commissioner for examination of the Project Facilities at the end of the 5th year. The issues raised by the committee shall need to be rectified by the Developer within 60 days. In case of failure to do so, for every day of delay under such circumstances, the Developer shall have to pay a sum equal to 0.10% (zero point ten percent) of the Performance Security prevailing at that time per day to NMC. In case NMC encashes the Bank Guarantee to the extent indicated, the Developer shall replenish the same within 7(seven) days. NMC also reserves the right to appropriate the Performance Security in case of delays and damages. Decision of the Municipal Commissioner in this regard shall be final and binding.

f) The Developer shall have to keep all the Project Facilities operational for all 365 days during the year. However, the Developer shall be allowed a maximum of 7 days only in each quarter during which it shall allow non-operational status of any project components on account of preventive maintenance. However, not all project components shall be allowed to be non-operational at any given point in time.

g) In case of persisting default for 10 continuous days for more than 2 times in each financial year after the Commercial Operation Date, same shall be deemed to be a major breach of this Agreement and necessitate action by the NMC as per the terms and conditions of this Agreement.

h) The Developer shall nominate a representative with due legal authorization by way of a Power of Attorney on a stamp paper of appropriate value for conducting the day to day activities of the project including its O&M. The said representative shall be authorized for depositing of the Sales Proceeds with NMC as prescribed in the Development Agreement. In case of the untimely demise of the promoters/partners of the Developer, the respective legal heirs shall assume the mantle of Developer.

6.4.2 Extension of Time

a) Without prejudice to the rights, powers and remedies of NMC, NMC shall issue a notice to the Developer in the event there is a probable delay in completion of Project Facilities and achieving the Commercial Operation Date beyond the period of 18 (Eighteen) months from the Appointed Date for reason(s)other than the Force Majeure events.

b) In case of probable/intermediate delay in completion of the Construction Works of the Project is attributable to the Developer:

Where the COD does not occur as per the timelines indicated in the Project Completion Schedule, unless the delay is on account of reasons solely attributable to NMC or due to Force Majeure, the Developer shall pay liquidated damages to NMC which shall be at the rate of 0.10%(zero point ten percent) for each day of delay in achieving COD, subject to maximum of 10 % (ten percent) of the amount of Performance Security. The performance security used by NMC to recover the liquidated damages needs to be replenished within 07 days of recovery. If Developer fails to replenish performance the NMC shall have right to terminate the contract for default on part of Developer.
If the delay extends beyond a period of two months or if the Developer fails to make any payment as per the penalty terms mentioned above, NMC shall, subject to the provisions of Article 14.1 terminate this Agreement and forfeit the Performance Security.

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6.4.3 Insurance

a) The Developer shall, at its costs and expenses, purchase and maintain during the subsistence of this Development Agreement insurance to cover against:

i. Loss, damages or destruction of the Project Site, at replacement value;

ii. The Developer's general liability arising out of this Agreement;

iii. Liability to third parties;

iv. Labor Insurance in accordance with the prevailing Labor Laws.

iv. The risk that may devolve on NMC as a consequence of any act of negligence or omission by the Developer; and

v. Any other insurance that may be necessary under and in accordance with the Financing Documents, Applicable Laws and Good Industry Practices to protect the Developer and its employees and other including all Force Majeure Events that are insurable and not otherwise covered in items above.

b) For the sake of brevity, the aggregate of the maximum sums insured under the insurance taken out by the Developer pursuant to this Article are herein referred to as the "**Insurance Cover**".

c) **Evidence of Insurance Cover**:
All insurance obtained by the Developer in accordance with this Clause 6.4.3 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 15 (fifteen) days of obtaining any insurance cover, the Developer shall furnish to NMC, 2 (two) notarized true copies of the certificate(s) of the insurance, 2 (two) copies of the insurance policies and premia payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Developer to NMC.

d) Such Insurance Cover shall not be cancelled, changed or terminated until the expiry of the least 45 days after written notice of such cancellation, change or termination has been given to NMC in writing.

e) On transfer of the Project Facilities to the buyers, the residual Insurance Cover shall be transferred to the buyers. The buyers/society formed by buyers shall have the option of maintaining such Insurance Cover.

f) All insurance policies in respect of the Insurance Cover obtained by the Developer shall include a waiver of any and all right of subrogation or recovery of the insurers there under against, inter alia, NMC, and its assigns, successor, undertaking and their subsidiaries, affiliates, employees, insurers and underwriters and of any right of the insurers of any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

g) The Developer hereby further releases, assigns and waives any and all rights of recovery against, inter alia, NMC and its assigns, undertaking, and their affiliates, subsidiaries, employees, successors, assigns, insurers and underwriters, which the Developer may otherwise have or acquire in or from or in any way connected with any loss, liability or obligations covered by policies of insurance maintained or required to be maintained by the Developer pursuant to this Agreement (other than Third Party liability insurance policies) or because of deductible Articles in or inadequacy of limits of any such policies of insurance.

h) Subject to the provisions of the Financing Documents and unless otherwise provided herein, the proceeds under Insurance Cover of all insurance policies received shall be promptly applied by Developer towards repair, renovation, restoration or re-instatement of the Project Facilities or any part thereof which may have been damaged or destroyed. The Developer shall carry such repair, renovation, restoration or re-instatement to the extent possible in such manner that the Project Facilities after such repair, renovation, restoration or re-instatement to the extent possible in the same condition as it were prior to such damage or destruction, normal wear and tear accepted.

i) **Remedy for failure to insure:**

If the Developer shall fail to effect and keep in force all insurance for which it is responsible pursuant hereto, NMC shall have the option to either keep in force any such insurances, and pay such premia and recover the costs thereof from the Developer, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Developer.

6.4.4 Milestones for Construction:

S.N.	Percentage of Project Completion in terms of the approved Project Cost	Percentage of time taken from the maximum of 18 months
1.	10%	25%
2.	35%	50%
3.	65%	75%
4.	100%	100%

Quality Assurance Manual shall be as elaborated in Volume 3: Design Proposal

6.4.5 Safety

The Developer shall abide by the following in so far as they related to safety of the Users:

i. Applicable Laws and Applicable Permits;
ii. Manual for Safety, issued by the Authority;
iii. Provision of this Agreement;
iv. Good Industry Practice

Appointment of Safety Consultant

For carrying out safety audit of the Project, NMC shall appoint from time to time, one or more qualified firms or organization as its consultant **(the "Safety Consultant").**

Once in every Accounting Year, a safety audit shall be carried out by the Safety Consultant. It shall review, compile and analyze the annual report and accident data of the preceding year, and undertake an inspection of the Project. The Safety Consultant shall complete the audit within a period of 1(one) month and submit a Safety Report **(the "Safety Report")** recommending specific improvements, if any, required to be made in the Project. The Safety Report shall be submitted to Authority, in 5 (five) copies.
One copy each of the Safety Report shall be forwarded by NMC to the Developer and the Independent Engineer forthwith.

Safety measures during Contract Period

i. The Developer shall develop, implement and administer a surveillance and safety program for the Project and the users thereof and its and the Contractor's labor and personnel engaged in the provision of any services under any of the project contracts, including correction of safety violations and deficiencies, and taking of all other actions necessary to provide a safe environment at the Project Site in accordance with Applicable Laws and Good Industry Practice.

ii. Take all responsible precautions for the prevention of accident on or about the Project Site and provide all reasonable assistance and medical aid to accident victims.

iii. Maintain liaison with emergency service providers and seek necessary police assistance on payment of applicable charges for the provisions of such services as are not provided in the normal course or are available only on payment.

iv. The Developer shall keep a copy of every first information report (the "**FIR**") recorded by Police with respect to any accident occurring in the Project. In addition, the Developer shall also collect data for all cases of accidents not recorded by the Police. The information so collected shall be summarized in the form prescribed by the Authority for this purpose. The Developer shall also record the exact location of each accident on the Layout plans and aforesaid data shall be submitted to NMC at the conclusion of every quarter.

v. The Developer shall submit to NMC before 31st (thirty first) May of each year, an annual report (in ten copies) containing, without limitation, a detailed listing and analysis of all accidents of the preceding Accounting Year and the measures taken by the Developer for averting or minimizing such accidents in future.

vi. Once in every Accounting Year, a safety audit shall be carried out by the Safety Consultant to be appointed by NMC. It shall review and analyze the annual report and accident data of the preceding year, and undertake an inspection of the Project Facilities. The Safety Consultant shall complete the safety audit within a period of 1 (one) month and submit a Safety Report recommending specific improvements, if any, required to be made in the Project.

6.4.6 Environmental Compliance

The Developer shall, at all times, ensure that all aspects of the Project Facilities/ Project Site and processes employed in the Development thereof shall conform with the laws pertaining to environment, health and safety aspects, policies and guidelines related thereto. The Developer shall obtain and maintain from time to time all necessary clearances from empowered Government Agency and for this purpose shall carry out the necessary studies for assessing the impact of the Project on the environment.

6.4.7 Overriding powers of the Authority for Environmental Compliance

If in the reasonable opinion of NMC, the Developer is in Material Breach of its obligations under this Agreement, and such breach is causing or likely to cause the Project to violate environmental norms or cause any nuisance to the surrounding areas, NMC may, without prejudice to any of its rights under this Agreement including Termination thereof, by notice requiring the Developer to take reasonable measures immediately for rectifying or removing such hardship

or danger, as the case may be.If the Developer fails to rectify or remove such hardship or danger, NMC may, without prejudice to any other rights or remedy available to it under this Agreement, remove such hardship at the risk and costs of the Developer. The cost incurred by NMC in rectifying such default of the Developer, as certified by the Independent Engineer/ NMC, shall be reimbursed by the Developer to NMC within 7 days from the date of receipt of a claim in respect thereof from NMC.

6.5 Obligations relating to Project Agreements

6.5.1 It is expressly agreed that the Developer shall, at all times, be responsible and liable for all its obligations under this Agreement notwithstanding anything contained in the Project Agreements or any other agreement, and no default under any Project Agreement or agreement shall excuse the Developer from its obligations or liability hereunder.

6.5.2 The Developer shall submit to NMC the drafts of all Project Agreements, or any amendments or replacements thereto, for its review and comments, and NMC shall have the right but not the obligation to undertake such review and provide its comments, if any, to the Developer within 21 (twenty one) days of the receipt of such drafts. Within 7 (seven) days of execution of any Project Agreement or amendment thereto, the Developer shall submit to NMC a true copy thereof, duly attested by a Director of the Developer, for its record. For the avoidance of doubt, it is agreed that the review and comments hereunder shall be limited to ensuring compliance with the terms of this Agreement. It is further agreed that no review and/or observation of NMC and/or its failure to review and/or convey its observations on any document shall not relieve the Developer of its obligations and liabilities under this Agreement in any manner nor shall NMC be liable for the same in any manner whatsoever.

6.5.3 The Developer shall ensure that each of the Project Agreements contains provisions that entitle NMC to step into such agreement, in its sole discretion, in substitution of the Developer in the event of Termination or suspension (the "**Covenant**") of the Project. For the avoidance of doubt, it is expressly agreed that in the event NMC does not exercise such rights of substitution within a period not exceeding 90 (ninety) days from the Termination of the Project, the Project Agreements shall be deemed to cease to be in force and effect without any liability whatsoever on NMC and the Covenant shall expressly provide for such eventuality.

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6.5.4 Notwithstanding anything to the contrary contained in this Agreement, the Developer agrees and acknowledges that selection or replacement of any Contractor shall be subject to the approval of NMC from national security and public interest perspective, the decision of NMC in this behalf being final, conclusive and binding on the Developer, and undertakes that it shall not give effect to any such selection or contract without prior approval of NMC. For the avoidance of doubt, it is expressly agreed that approval of NMC hereunder shall be limited to national security and public interest perspective, and NMC shall endeavour to convey its decision thereon expeditiously. It is also agreed that NMC shall not be liable in any manner on account of grant or otherwise of such approval and that such approval or denial thereof shall not in any manner absolve the Developer or its Contractors from any liability or obligation under this Agreement.

6.6 Change in Ownership

6.6.1 The Developer shall not undertake or permit any Change in Ownership, except with the prior approval of NMC.

6.6.2 For the Special Purpose Vehicle (SPV) formed for the purpose of implementing this Development Rights, the following is mandated.

(a) The Lead Member or sole applicant, whose experience will be evaluated for the purposes of RFP, shall subscribe to 51% (fifty one per cent) or more of the Equity of the SPV till completion of the Sales of the complete Project.

(b) The other member of the Consortium (i.e. except the Lead Member), whose experience will be evaluated for the purposes of RFP, shall subscribe to 26% (twenty six per cent) or more of Equity of the SPV till completion of the Sales of the complete Project.

(c) The members of the Consortium shall collectively hold 100% (hundred per cent) of the issued and paid up Equity of the SPV at all times during the Development and Sales Period;

6.7 Sole purpose of the Developer

The SPV having been set up for the sole purpose of exercising the rights and observing and performing its obligations and liabilities under this Agreement, the Developer or any of its subsidiaries shall not, except with the previous

written consent of NMC, be or become directly or indirectly engaged, concerned or interested in any business other than as envisaged herein.

6.8 No Breach of Obligations

The Developer shall not be considered to be in breach of its obligations under this Agreement nor shall it incur or suffer any liability to the extent, if performance of any of its obligations under this Agreement is affected by or on account of any of the following:

a. Force Majeure Event in accordance with Article 12;

b. NMC Event Default;

6.9 Taxes and Charges

a) The Developer shall pay in a timely manner, all taxes, duties, levies, cess and charges including but not limited to income tax, sales tax, goods and service tax, excise duty, customs duty, octroi and other rate and taxes that may be levied, claimed or demanded from time to time by any Government Agency including any increase therein effected from time to time by any Government Agency, in respect of the Project. Project Cost includes all taxes and duties due and no extra payment of any kind shall be made by NMC to the Developer in this regard.

b) New tax regimes/rates as imposed/proposed by the Central/State Government from time to time including but not limited to the Goods and Services Tax (GST) 2016 shall be adhered to by the Developer.

b) Pay all charges, taxes, fines, late fees, including the property taxes and other outgoing in relation to the use of Project Site, utilities and services by the Developer or its Contractors and agents during the implementation and operation of the Project such as water supply, sewage disposal, fuel garbage collection and disposal, electric power, gas, telephone and other utilities and ensure avoidance of any disruption thereof due to disconnection or withdrawal of the facility.

Article 7. NMC's Obligations

In addition to and not in derogation or substitution of any of its other obligations under this Agreement, NMC shall have the following obligations:

NMC shall:

a) Within 60 days from the Effective Date NMC shall handover to the Developer the peaceful physical possession of the Project Site.

b) NMC shall on its reasonable effort basis provide support to the Developer in obtaining timely approvals, permission and authorization for performance for obligations for the Project.

c) Facilitate in a timely manner all such authorization which the Developer may require or is obliged to seek from NMC under this Agreement, in connection with implementation of the Project and the performance of its obligations.

d) provide authorization for availing of utilities such as power, water, sewerage, telecommunications or any other incidental services / utilities on receipt of request from the Developer to make available such authorization;

e) Approve the Detailed Project Report within thirty days of submission

Article 8. Representation and Warranties

8.1 Representation and Warranties of Developer

The Developer hereby represents warrants and covenants to NMC for itself that **("Developer Warranties")**

a) The Developer has been incorporated and organized and is validly existing and in good standing, under Applicable Law. The Developer has the corporate power and authority to own, operate and maintain assets and properties and to carry on its business as currently conducted and proposed to be conducted.

b) The copies of the Memorandum of Association and Articles of Association (having attached thereto copies of all such resolutions as per law, to be attached thereto and all amendments made to date) that have been delivered to NMC are true, accurate and complete. All legal and procedural requirements and other formalities concerning such memorandum of association and articles of association have been duly and properly complied with in all material respects.

c) The Developer has the legal right, power and authority to execute, deliver and perform this Agreement. All action on the part of the Developer and all corporate action on the part of the Board of directors of the Developer necessary for the authorization, execution, delivery of and the performance of all obligations of the Developer have been taken.

d) No further consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any Governmental Authority or any other person is required in connection with the execution and delivery of this Agreement.

a) This Agreement is valid and would constitute the binding obligations on the Developer enforceable against the Developer in accordance with their terms. This Agreement is, and when executed be, the valid and binding obligation of the Developer, enforceable against the Developer in accordance with its terms hereof. As of date, as regards the Developer, there is no applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors" rights generally.

f) The execution and delivery by the Developer of this Agreement and the performance by the Developer of its respective obligations under this Agreement do not and will not:

i. Constitute a breach or a default under any Memorandum of Association and Articles of Association of the Developer.

ii. Result in a breach of, or constitute or default under, any contract to which the Developer is a party or by which it is bound.

iii. Result in a violation or breach of or default under any applicable law or regulation or of any order, judgment or decree of any Governmental Authority to which the Developer is a party or by which the Developer is bound.

g) No order writ, injunction or any decree of any court has been made and no resolution has been passed for the winding up of the Developer for a provisional liquidator to be appointed in respect of the Developer and no petition has been presented and no meeting has convened for the purpose of winding up the Developer. No receiver has been appointed in respect of the Developer or all or any of its assets. The Developer is not insolvent or unable to pay its debts as they fall due.

h) It has the financial standing and capacity to undertake the Project in accordance with the terms of this Agreement;

i) No sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the Development Rights or entering into this Agreement or for influencing or attempting to influence any officer or employee of NMC in connection therewith; and

j) All information provided by the Selected Bidder in response to the Request for Proposal or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects.

8.2 Representation and Warranties of NMC

NMC represents and warrants to the Developer for itself that **("NMC Warranties"):**

a) It is the urban local body for the city of Nagpur, duly established under and functioning as per the MMC Act, 1949 ("**Act**")and has the power to conduct its business as presently conducted and to enter into this Agreement;

b) It has the full power, authority and legal right to execute, deliver and perform its obligations under this Agreement and has taken all necessary sanctions and approvals and followed all the procedure required to authorize the execution, delivery and performance of this Agreement.

c) The execution, delivery and performance of this Agreement by NMC will not:

i. Violate any provision of the organizational documents of NMC.

ii. Conflict with or result in any Material Breach or violation of any of the terms and conditions of, or constitute (or with notice or lapse of time or both constitute) a default under, any agreement to which NMC is a party or by which NMC is bound.

iii. Violate any court order, judgment, injunction, award, decree or writ against, or binding upon, NMC or its securities, properties or business.

iv. Violate any law or regulation of India.

8.3 Obligation to Notify Change

In the event that any of the representations or warranties made/ given by a Party ceases to be true or stands changed, the Party who had made such representation are given such warranty shall promptly notify the other of the same.

Article 9. Disclaimer

9.1 The Developer acknowledges that prior to the execution of this Agreement, the Developer has, after a complete and careful examination, made an independent evaluation of the Site, Request for Proposal, Scope of the Project, Specifications and Standards, Safety Requirements, existing structures, local conditions, physical qualities of ground, subsoil, and geology, and all information provided by NMC or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. NMC makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Developer confirms that it shall have no claim whatsoever against NMC in this regard.

9.2 The Developer acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 9.1 above and hereby acknowledges and agrees that NMC shall not be liable for the same in any manner whatsoever to the Developer and its Associates or any person claiming through or under any of them.

9.3 The Parties agree that any mistake or error in or relating to any of the matters set forth in Clause 9.1 above shall not vitiate this Agreement, or render it voidable.

9.4 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in Clause 9.3 above, that Party shall immediately notify the other Party, specifying the mistake or error; provided, however, that a failure on part of NMC to give any notice pursuant to this Clause 9.4 shall not prejudice the disclaimer of NMC contained in Clause 9.1 and shall not in any manner shift to NMC any risks assumed by the Developer pursuant to this Agreement.

9.5 Except as otherwise provided in this Agreement, all risks relating to the Project shall be borne by the Developer and NMC shall not be liable in any manner for such risks or the consequences thereof.

Article 10. Financial Covenants

10.1 Performance Security

a) The Developer shall submit to the NMC, a Performance Security of Rs. 2,00, 00, 000/- (Rupees Two Crores only) in the form of a Bank Guarantee, in the form as set out in **Schedule 4,** from the list of nationalized Banks issued by NMC which is valid till 90 days after the period of 60 months from Appointed Date, in favor of Nagpur Municipal Corporation, payable at Nagpur. The Performance Security shall be extended by the Developer upon direction of NMC in the event of extension by NMC.

The Performance Security shall be for a period of 60 (sixty) months plus 90 (ninety days) or till the subsistence of the Development Agreement, whichever is later. The Developer may submit the Bank Guarantee for one year at a time but it shall be the responsibility of the Developer to renew the same annually and NMC shall not be responsible for the same in any way for its renewal.

Claim period of the Performance Security Bank Guarantee shall be 12 months beyond the validity period.

b) The Developer agrees that the Performance Security will be kept valid till the Independent Engineer certifies that the construction of Project Facilities is complete in all respect. Provided that if the Development Agreement is terminated due to any event other than Developer's Event of Default, then the Performance Security subsisting as of the Termination Date shall, subject to NMC's right to receive amounts, if any, payable by the Developer to NMC under this Agreement, be duly discharged and released to the Developer.

c) The decision of NMC as to any breach/delay having been committed, liability accrued or losses or damage caused or suffered shall be conclusive, absolute and binding on the Developer. The Developer specifically confirms and agrees that no proof of any amount of liability accrued or loss or damages caused or suffered by NMC under this Agreement is required to be provided in connection with any demand made by the NMC to recover such compensation through encashment of the Performance Security under this Agreement and that no document or any action shall be required other than the NMC's written demand as aforesaid.

d) Notwithstanding anything to the contrary in this Agreement, the Developer shall have the right to seek discharge of the entire Performance Security upon completion of the Development and Sales period, subject to other provisions of this Development Agreement.

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10.2 Appropriation of Performance Security

a) If the Agreement is terminated due to any event other than an Event of Default by the Developer, the Performance Security shall, subject to the NMC's right to receive or recover amounts, if any, payable by the Developer to NMC under this Agreement, be duly discharged and released to the Developer.

b) Upon occurrence of a Developer Default, the NMC shall, without prejudice to its other rights and remedies hereunder or in law, been entitled to invoke and appropriate the relevant amounts from the Performance Security as Damages for such Developer Default. Upon such invocation and appropriation from the Performance Security by NMC, in part or in full, the Developer shall, within 7 (seven) days thereof, replenish, in case of partial appropriation, the Performance Security to its original level, and in case of appropriation of the entire Performance Security provide a fresh Performance Security, as the case may be, and the Developer shall, within the time so granted, replenish or furnish fresh Performance Security as aforesaid failing which the NMC shall be entitled to terminate this Agreement in accordance with provisions of Article 14 hereof. The provisions of this Article 10.2 shall apply mutatis mutandis to such fresh Performance Security.

c) Release of Performance Security

The Authority shall release the Performance Security forthwith, upon expiry of 120 (one hundred and twenty) days from the Surrender Date, subject however to deductions towards any outstanding amount payable to Authority by Developer in terms hereof.

The Performance Security shall remain in force and effect by the Developer, throughout the Contract Period.

Upon request made by the Developer for release of the Performance Security along with the particulars which establish satisfaction of the requirements, the Authority shall release the Performance Security forthwith.

10.3 Payments:

10.3.1 Pursuant to grant of development and sales rights by NMC and in consideration of grant of rights in accordance with this Agreement, the Developer shall pay to NMC the following payments:

Part A: Up-front Premium of Rs. 5.00 crores (Rupees Five Crores only) to be paid to NMC within 60 days of issue of Letter of Award.

Part B: Sale Proceeds of Rs.....crores (Remaining amount as quoted Rs.....less Part A Rs 5 crores upfront) from the sale of various components of the Project. Part B equals Rs.....

- Payment of the Sales Proceeds shall be done proportionate to the Sales Proceeds after adjusting for the Upfront Premium of Rs. 5.00 crores.

  The detailed payment schedule is as mentioned below:

S.N.	Percentage Sales completed of the various components of the Shopping/Commercial Complex	Percentage of Part B payable to NMC on receipt of corresponding Sale Percentage
1.	20%	25%
2.	45%	50%
3.	70%	75%
4.	80%	100%

The Developer shall have an option of paying the entire NMC part within 2 (two) years.

- In case the payment of Part B to NMC exceeds 24 (twenty four months), then the balance amount of Part B payable to NMC shall be increased by a percentage equivalent the increase in Ready Reckoner Rates from previous year for the Project Site area for the upcoming respective year.

- 100% of the Lump-sum Financial Offer amount payable to NMC increased proportionately with the inflation percentage as mentioned above shall be payable by the Developer on or prior to the completion of 80% of the projected Sale proceeds as shown in the financial proposal from the Project.

10.4. Sale Proceeds:

a) The Developer has, inter-alia been granted development and sales rights to finance, build, operate and manage market and undertake sales of a Shopping/Commercial Complex as part of Project Facilities. The Developer shall be permitted to collect sale proceeds, entry/membership fees, parking, advertisements etc from the sale of various components of the Project.

b) Post signing of the Development Agreement with NMC and on issue of Commencement Certificate from NMC, the Developer can market the project and undertake the Sales of the various components of the said Project.

c) The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement.
A tripartite agreement shall be executed between NMC, the Developer and the Buyer. The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement.

10.5 Revenue from Parking and Advertisement:

The planning for the parking at the Project Site shall be strictly in consonance with the DCR as modified from time to time.

As per the present planning, parking is proposed on the lower & upper basements and part of the ground floor of the proposed building. It should be the endeavour of the Developer to maximize the parking area.

NMC envisages that the lower basement parking shall be handed over to the buyers of the Project components as per the allocation mentioned in the DCR as modified from time to time.

Similarly the Developer can identify and enlist the locations & spaces suitable for display of commercial advertisements in consonance with the present planning and in consultation with M/s Architect Hafeez Contractor.
The location & spaces shall be compliant with rules and regulations prevalent at that point of time. The area and list shall be submitted and got approved from the competent authority and shall be notified to NMC.

NMC envisages that the parking on the upper basement and the ground floor shall be operated commercially and the Developer shall have exclusive rights to earn revenues from such commercial parking facilities and advertisement as specified in above paragraph for seven years from the date of signing of the Development Agreement. After seven years the right to lease and earn parking and advertisement revenues shall vest exclusively with NMC.

NMC desires that the Developer should plan for development of mechanical parking facilities at the Project Site.

The Operation & Maintenance of the entire Project including the parking shall be the responsibility of the Developer till formation of the society and thereafter it shall be the responsibility of the owners themselves.

The Operation & Maintenance of the commercial parking area as long as it remains with the Developer shall be the responsibility of the Developer for five years from the date of signing of the Development Agreement thereafter it shall be handed over to NMC.

The right to lease and earn Advertisement Revenue from the Project for seven years from the date of signing of the Development Agreement shall be with the Developer and after seven years it shall be exclusive right of NMC to lease and earn revenue from the advertisement from the Project facilities.

The content of advertisements displayed at the approved locations must be in accordance with the guidelines of Advertisement Council of India;

Revenue from Additional Development:

The Developer can explore and utilize the additional revenue earning areas including the rooftop of the proposed building for commercial purpose such as setting up of rooftop restaurant, and such other facilities. Such development shall be subject to approval from NMC and NMC may execute a supplementary agreement with the Developer for such additional development. The Developer shall have exclusive rights to develop. The revenue from such development for seven years from the date of signing of the Development Agreement shall be shared equally between NMC and the Developer and after seven years it shall be exclusive right of NMC to lease/operate and earn revenue from such facilities.

The NMC share of Revenue from the Project shall be deposited by the Developer in the Bank Account of NMC within 02 days of receipt of the Revenue in Developers' Bank Account.

10.6. Financing:

10.6.1 Financial Close

a) The Developer shall at its cost, expenses and risk make all or any financing arrangement as would be necessary to implement the Project and achieve the Financial Close within 120 days. In the event of delay, it shall be entitled to a further period not exceeding 30 (thirty) days, subject to payment of Damages to NMC in a sum calculated at the rate of 0.25% of the Performance Security for each week of delay. In any case, the delay in achieving Financial Close shall not impact the Appointed Date.

b) Notwithstanding anything to the contrary contained in this Agreement, in the event that Financial Close does not occur, for any reason whatsoever, within the period set forth in Clause 10.6.1(a) or the extended period provided there under, all rights, privileges, claims and entitlements of the Developer under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Developer, and the Development Agreement shall be deemed to have been terminated.

c) The Developer is not allowed to mortgage, hypothecate or create lien or procure financial assistance for development of the Project Site by creating any third party interest over the Project Land and constructed Project Facilities.The Project land, at all times shall be in the name and ownership of NMC.

d) The Developer shall, upon occurrence of Financial Close, notify NMC within 7 (seven) days of the Financial Close with a copy of letter received in this regard from the Senior Lenders.

e) Within 7 (seven) days after the execution of the Financing Documents the Developer shall provide true copies of the same duly attested by a Director of Developer.

10.6.2 Termination due to failure to achieve Financial Close

a) Notwithstanding anything to the contrary contained in this Agreement, in the event that the Financial Close does not occur, for any reason, attributable to Developer only , within the period set forth in Clause 10.6.1 (a) above, all rights, privileges, claims and entitlements of the Developer under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Developer, and the Development Agreement shall be deemed to have been terminated by mutual agreement of the Parties, without prejudice to any remedies that the NMC shall have under this Agreement and/or under the Applicable Laws.

b) Upon Termination under Clause 10.6.2 (a) above, NMC shall be entitled to encash the Performance Security as liquidated damages. Provided, however, if Financial Close has not occurred solely as result of NMC being in default of any of its obligations under this Agreement it shall, upon Termination, return the Performance Security.

Article 11. Liability and Indemnity

11.1 The Developer agrees to indemnify and hold harmless NMC and its Officers and Employees and Advisors (each known as **"NMC Indemnified Party"**) promptly upon demand at any time and from time to time, from and against any or all suits, proceedings, actions, demands, losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursement)and expenses (collectively known as "**Losses**") to which NMC Indemnified Party may become subject, insofar as such Losses directly arise out of, in any way relate to, or result from:

i. Any mis-statement or any breach of any representation or warranty made by Developer or

ii. The Failure by Developer to fulfill any agreement, covenant or condition contained in this Agreement, including without limitation the breach of any terms and conditions of this Agreement by any employee or agent or Sub-Contractors of the Developer or

iii. Any claim or proceeding by any third party against NMC arising out of any act, deed or omission by the Developer; or

iv. Any defect or deficiency in the provision of services by the Developer; or

v. Failure of the Developer to comply with Applicable Laws and Applicable Permits; or

vi. Payment of taxes required to be made by the Developer in respect of the income or other taxes of the Developer's contractors, suppliers and representatives; or

vii. Non-payment of amounts due as a result of materials or services furnished to the Developer or any of its Contractors which are payable by the Developer or any of its contractors.

For the avoidance of doubt, indemnification of losses pursuant to this Article shall be made in an amount or amounts sufficient to restore each NMC Indemnified Party to the financial position it would have been in, had the Losses not occurred or caused.

11.2 Any payment made under this Agreement pursuant to an indemnity or claim for breach of any provision of this Agreement shall be net of applicable Taxes.

11.3 Without limiting the generality of the provisions of this Article 11, the Developer shall fully indemnify, hold harmless and defend the NMC Indemnified Persons from and against any and all suits, proceedings, actions,

claims, demands, liabilities and damages which NMC Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other intellectual property, proprietary or confidentiality rights with respect to any materials, information, design or process used by the Developer or by the Developer's Contractors in performing the Developer's obligations or in any way incorporated in or related to the Project. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Developer shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure the revocation or suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Project, or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the Developer shall promptly make every reasonable effort to secure for NMC a licence, at no cost to NMC, authorising continued use of the infringing work. If the Developer is unable to secure such licence within a reasonable time, the Developer shall, at its own expense, and without impairing the Specifications and Standards, either replace the affected work, or part, or process thereof with non-infringing work or part or process, or modify the same so that it becomes non-infringing.

11.4 The provisions of this Article 11 shall survive Termination.

Article 12. Force Majeure

12.1 Force Majeure Event

Force Majeure shall means occurrence in India of any event or circumstance or a combination of events or circumstances set out below that materially and adversely affects any Party ("**Affected Party**") in the performance of its obligations in accordance with the terms of this Agreement, but only if and to the extent that such event and circumstances pertains to the Project and has a Material Adverse Effect on the operations on the Project Site, which is beyond the Affected Party's reasonable control, and/or the effects of which the Affected Party could not have prevented through Good Industry Practice or, through reasonable skill and care, including through the expenditure of reasonable sums of money;

a) **Natural Force Majeure**

i. act of God, earthquake, flood, inundation and landslide

ii. Storm, tempest, hurricane, cyclone, lighting, thunder or other extreme atmospheric disturbances

iii. fire caused by reasons not attributable to the Developer or any of its employees, Sub-Contractors or agent appointed by the Developer for purpose of the Project;

b) **Indirect Political Force Majeure**

i. Acts of terrorism;

ii. Industry wide or state-wide Strikes, labor disruptions or any other industrial disturbances not arising on account of the acts or omissions of the Developer or the Contractor;

iii. War, hostilities (whether declared or not), invasion, act of foreign enemy, rebellion, riots, weapon conflict or military actions, civil war, ionizing radiation, contamination by radioactivity from nuclear fuel, any nuclear waste, radioactive toxic explosion, volcanic eruption,

iv. Any failure or delay of Sub-Contractor caused by the event mentioned in the sub clause 12.1 (b) for which no offsetting compensation is payable to the Developer by or on behalf of the Contractor.

v. Early Termination of this Agreement by NMC for reason of national emergency or national security.

vi. The discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection;

c) **Direct Political Force Majeure**

i. Action of Government Agency having Material Adverse Effect including but not limited to

a. Acts of expropriation, compulsory acquisition or takeover by the Government Agency of the Project/Project Site or any part thereof or of the Developer's or the Contractor's right in relation to the Project when there exists no default by the Developer, and

b. Any unlawful, unauthorized or without jurisdiction refusal to issue or to renew or the revocation of any Applicable Permits, in each case, for reason other than Developer's or its Sub-Contractor's breach or failure in complying with the Project Requirements, Applicable laws, Applicable Permits, any judgment or order of a Governmental Agency or of any contract by which the Developer or its Contractor as the case may be inbound.

12.2 Exclusion from Force Majeure Event

Force Majeure shall expressly not include the following conditions, except to the extent resulting from a Force Majeure:

a) Unavailability, late delivery or changes in cost of plant, machinery, equipment, material, spare parts or consumable for the Project;

b) A delay in the performance of any Contractor or supplier;

c) An indirect effect on the operations of the project;

d) Non-performance resulting from normal wear and tear typically experienced in a Project of this kind; and non-performance caused by, or connected with, the non-conforming party's (a) negligent or intentional acts, errors or omissions (b) failure to comply with any of the Laws of India, or (c) breach of, or default under this agreement.

e) Failure or follow Good Industry Practices.

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12.3 Notice of Force Majeure Event

a) As soon as practicable and in any case within 7 days of the date of occurrence of a Force Majeure Event or the date of knowledge thereof, the Affected Party shall notify the other party of the same setting out, inter alia, the following in reasonable detail:

i. The nature and extent of a Force Majeure Event;

ii. The estimated Force Majeure Period;

iii. The estimated period of impact of such Force Majeure;

iv. The nature of an extent to which, performance of any of its obligations under this Agreement is affected by the Force Majeure Event;

v. The measure which the Affected Party has taken or proposes to take to alleviate/mitigate the impact of the Force Majeure Event and to resume performance of such of its obligations affected thereby.

vi. Any other relevant information concerning the Force Majeure Event, and/or the right and obligations of the Parties under this Agreement.

b) As soon as practical and in any case within 5 days of notification by the Affected Party in accordance with the preceding clause (a), the parties shall, if applicable, meet and hold discussion in good faith and where necessary conduct physical inspection/survey of the Project Site and the Project Facilities in order to:

i. Assess the impact of the underlying Force Majeure Event,

ii. To determine the likely duration of Force Majeure Period and,

iii. To formulate damage mitigation measures and steps to be undertaken by the Parties for resumption of obligations, the performance of which shall have been affected by the underlying Force Majeure Event.

c) The Affected Party shall during the Force Majeure Period provide to the other Party regular (not less than weekly) reports concerning the matters set out in the preceding clause (b) as also any information, details or document, which the other Party may reasonable require.

12.4 Performance of Obligations

If the Affected Party is rendered wholly or partially unable to perform any of its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such obligations to the extent it is unable to perform the same on account of such Force Majeure Event provided that:

a) Due notice of the Force Majeure Event has been given as required by the preceding Article 12.3;

b) The excuse from performance shall be of no greater scope and of no longer duration than is necessitated by the impact period of such Force Majeure Event.

c) The Affected Party has taken all reasonable efforts to avoid, prevent, mitigate and limit damage, if any, caused or is likely to be caused to the Project Facilities / as result of the Force Majeure Event and to restore the Project Facilities, in accordance with the Good Industry Practice and its relative obligations under this Agreement;

d) When the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party a written notice to that effect and shall promptly resume performance of its obligations hereunder, the non-issue of such notice being no excuse for any delay for resuming such performance;

e) The Affected Party shall continue to perform such of its obligations which are not affected by the Force Majeure Event and which are capable for being performed in accordance with this Agreement; and

f) Any insurance proceed received shall be, subject to the provisions of Financing Documents, entirely applied to repair, replace or restore the assets damaged on account of the Force Majeure Event, or in accordance with Good Industry Practice.

12.5 Effect of Force Majeure Event on the Development and Sales Rights

a) If any Force Majeure Event occurs, before COD, the Development and Sales Period and the dates set forth in the Project Completion Schedule shall be extended by a period equal in length to the duration for which such Force Majeure Event subsists; and

b) If any Force Majeure Event occurs after COD, if the Operation and Maintenance is suspended, the Development and Sales Period shall be extended by a period equal in length to the period during which such Operation and Maintenance is suspended.

12.6 Allocation of costs arising out of Force Majeure

Upon occurrence of any Force Majeure Event, the Parties shall bear their respective costs and no Party shall be required to pay to the other Party any costs thereof. For the avoidance of doubt, Force Majeure costs may include interest payments on debt, O&M Expenses, any increase in the cost of Construction Works on account of inflation and all other costs directly attributable to the Force Majeure Event.

12.7 Termination Notice for Force Majeure Event

If a Force Majeure Event subsists for a period of 180 (one hundred and-eighty) days or more within a continuous period of 365 (three hundred and sixty five) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days' time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

Article 13. Event of Default

Event of Default shall mean either Developer Event of Default or the NMC Event of Default or both as the context may require.

13.1 Developer's Event of Default

Any of the following events shall constitute an Event of Default by the Developer ("**Developers Event of Default**") unless such event has occurred as a result of one or more reasons set out under No Breach of Obligations mentioned under Article 6.8, and the Developer fails to cure the default within the cure period specified therein ("**Cure Period**"); or if no Cure Period is specified, then within a period of 30 days.

Cure Period shall mean the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and shall:

(a) Commence from the date on which a notice is delivered by one Party to the other Party asking the latter to cure the breach or default specified in such notice;

(b) Not relieve any Party from liability to pay Damages or compensation under the provisions of this Agreement; and

(c) Not in any way be extended by any period of Suspension under this Agreement; provided that if the cure of any breach by the Developer requires any reasonable action by the Developer that must be approved by NMC or its Independent Engineer hereunder, the applicable Cure Period shall be extended by the period taken by NMC / its Independent Engineer to accord their approval

The defaults referred herein shall include:

a) Failure to obtain and maintain the Applicable Permits and clearances from concerned authorities under Applicable Laws and ensure legal compliance with labor laws and other statues applicable.

b) The Developer has failed to adhere to any construction milestone in Project Completion Schedule or complete the construction of the Project Facilities on or before Scheduled Project Completion Date and extension of time period granted thereof;

c) The Developer has failed to make any payment due to NMC from the Revenue earned from the Project and more than 30 days have elapsed since the default of this payment.

d) The Performance Security has been en-cashed and the Developer has failed to place or replenish the amount of Performance Security within the time period mentioned in Article 10.1.

e) The Developer does not construct and operate any of the items of Project Facilities mentioned in the Scope of work;

f) The Developer has failed to cure the default within the cure period and failed to make any payment towards Damages within the period specified in this Agreement;

g) The Developer has failed to submit and take approval of a Detailed Project Report within 60 days of the Effective Date.

h) The Development of the Project is not in conformity with the approved construction plan and Detailed Project Report (DPR) approved by NMC including safety requirements.

i) The development of the Project does not adhere to the Environmental Impact Assessment (EIA) Study- Schedule 2.

j) The Developer is found interfering or causing damages to the properties of NMC or others during the development.

k) The Developer has encroached upon any adjoining land, road, pathway, footpath etc. of NMC/Government of India/Government of Maharashtra/Government Agency/private party in any manner whatsoever.

l) The Developer creates any Encumbrance including on the Project Land in breach of this Agreement;

m) Upon occurrence of a default under Financial Document, the Lenders' have by notice required NMC to undertake suspension or Termination, as the case may be, in accordance with the Substitution Agreement and the Developer fails to cure the default within the Cure Period specified therein;

n) A Change in Ownership has occurred in breach of the provisions of Clause 6.6; or the Equity holding of the Developer is not in line with Clause 6.6.2.

o) Change in management control of the Developer which according to the NMC may have Material Adverse Effect towards the completion or operation of the Project.

p) Any representation made or warranty given by the Developer under this Agreement is found to be false or misleading;

q) The Developer is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Developer or for the whole or material part of its assets;

r) A resolution for winding up of Developer has been passed or Any petition for winding up of the Developer has been admitted and liquidator or provisional liquidator has been appointed or the Developer has been ordered to be wound up by Court of competent jurisdiction, except for the purpose of amalgamation or reconstruction with the prior consent of NMC, provided that, as part of such amalgamation or reconstruction and the amalgamated or reconstructed entity has unconditionally assumed all surviving Obligations of the Developer under this Agreement.

s) The Developer abandons the Project manifests intention to abandon the construction or operation of the Project without the prior written consent of NMC;

t) The Developer has unlawfully repudiated this Agreement or has other wise expressed an intention not to be bound by this Agreement or commits any breach which has caused a Material Adverse Effect;

u) The Developer has failed to fulfil any obligation, for which failure Termination has been specified in this Agreement; or

v) The Developer has committed any material breach or is likely to cause a material breach having Material Adverse Effect on the Project.

13.2 NMC Event of Default

Any of the following events shall constitute an Event of Default by NMC ("**NMC Event of Default**") when not caused by a Developer Event of Default or Force Majeure Event, and NMC fails to cure the default within the cure period specified therein; or if no cure period is specified, then within a period of 30 days.

a) The Project Site has not been handed over to the Developer within 60 days from the Effective Date; However handing over of minor portions to the extent of 20% of project area, if delayed due to unavoidable reasons beyond the control of NMC, shall not be treated as a default.

b) NMC has made breach of any of its obligations under this Agreement and has failed to rectify the breach within 45 (forty-five) days of receipt of notice thereof issued by the Developer;

Article 14. Termination

14.1 Termination Procedure

a) For Developer's Event of Default

i. Without prejudice to any other right or remedy which NMC may have in respect thereof under this Agreement, upon the occurrences of a Developers Event of Default, NMC shall, subject to the provisions of the "**Substitution Agreement**" (if any, with the Lenders, pursuant to which, in case of default by Developer, Lenders shall be allowed to take charge of Developer's roles and responsibilities under this Agreement), be entitled to terminate this Agreement in the manner as set out under the subsequent sub clauses.

ii. If NMC decides to terminate this Agreement pursuant to preceding clause (i), it shall issue Notice of Intent to terminate the Development Agreement. Within 30 (thirty) days of receipt of the Notice of Intent to Terminate, the Developer shall submit to NMC in sufficient detail, the manner in which it proposes to cure the underlying Event of Default, if any ("**Developer's Proposal to Rectify**"). In case of non-submission of the Developer's Proposal to Rectify within the said period of 30days, NMC shall be entitled to terminate this Agreement by issuing Termination Notice and appropriate the Performance Security, if subsisting.

iii. If the Developers Proposal to rectify is submitted within the period stipulated thereof, the Developer shall have further period of 45 days from the date of submission of the Proposal to rectify to remedy/cure the underlying Event of Default within such further period allowed. If, however the Developer fails to remedy / cure the underlying Event of Default or the factors causing the Event of Default within such further period allowed, NMC shall be entitled to terminate this Agreement, by issue of Termination Notice and appropriate the Performance/Operation Security. For the avoidance of doubt, the Authority, at its sole discretion, can reject the Developer Proposal to rectify if it feels that it is not adequate to cure the Event of Default or prevent the Event of Default from reoccurring.

C) For NMC Event of Default

i. Without prejudice to any other right or remedy which the Developer may have in respect thereof under this Agreement, upon the occurrences of NMC Event of Default, Developer shall be entitled to terminate this Agreement by issuing Termination Notice.

ii. If the Developer decides terminate this Agreement pursuant to preceding clause (i) it shall issue Notice of Intent to Terminate Development Agreement. Within 30 days of receipt of the Notice of Intent to Terminate, the NMC shall forward

to the Developer its proposal to remedy/cure the underlying Event of Default (the "**NMC Proposal to Rectify**"). In case of non-submission of NMC Proposal to Rectify within the period stipulated hereof, the Developer shall be entitled to terminate this Agreement by issuing Termination Notice.

iii. If NMC Proposal to Rectify is forwarded to the Developer submitted within the period stipulated thereof, the NMC shall have further period of45 days from the date of submission of NMC Proposal to Rectify to remedy/cure the underlying Event of Default within such further period allowed. If, however the Authority fails to remedy / cure the underlying Event of Default within such further period allowed, Developer shall be entitled to terminate this Agreement by issuing Termination Notice.

14.2 Termination Notice

If any Party entitled to issue a Termination Notice, decides to terminate this Agreement pursuant to the preceding Article 14.1, it shall issue Termination Notice setting out;

a) In sufficient detail the underlying Force Majeure Event / Event of Default as applicable;

b) The Termination Date which shall be a date occurring not earlier than 30 days from the date of Termination Notice;

c) The estimated Termination Payment including the details of computation thereof and;

d) Any other relevant information.

14.3 Obligations of Parties

Following the issue of Termination Notice by either Party, the Parties shall promptly take all such steps as may be necessary or required to ensure that;

a) Until Termination the Parties shall, to the fullest extent possible, discharge the irrespective obligations so as to maintain the continued operation of the Project Facilities;

b) The Termination Payment, if any, payable by NMC in accordance with the following Article 14.5 shall be paid to the Developer on the Termination Date and

c) The Project Facilities are handed back to NMC as instructed by NMC, by the Developer on the Termination Date free from any encumbrancealong with any payment that may be due by Developer to NMC.

14.4 Withdrawal of Termination Notice

Notwithstanding anything inconsistent contained in this Agreement, if the Party who has been served with the Termination Notice cures the underlying Event of Default to the satisfaction of the other Party at any time before the Termination occurs, the Termination Notice shall be withdrawn by the Party which had issued the same.

14.5 Termination Payments

14.5.1 Payment in case of Force Majeure Event

i. If Termination is due to a Force Majeure Event, described under Article 12, no Termination Payment shall be made by NMC to the Developer but, the Developer shall be entitled to receive and appropriate the proceeds of any amounts under Insurance Cover.

14.5.2 Payment in case of Developer's Event of Default

a) Upon Termination on account of a Developer Event of Default after COD, Developer shall pay to the NMC, by way of Termination Payment, an amount equal to 10% of the balance amount payable to NMC as quoted by the Developer in its Financial Offer. In addition to this the Upfront Premium paid earlier shall also not be returned. The Developer shall be entitled for the 90% (value of the work done) payment for the work done by it and which has been certified by the Independent Engineer from time to time. The balance amount payable to the Developer shall be adjusted with the amount it has received from the Sales Proceeds and other revenues.

b) For the avoidance of doubt, the Developer hereby acknowledges that no Termination Payment shall be due or payable on account of a Developer's Event of Default occurring prior to COD.

c) Upon Termination of this Agreement on account of Developer Event of Default the Performance Security shall be en-cashed by NMC. The Developer expressly agrees that Termination Payment under this Clause 14.5 shall constitute a full and final settlement of all claims of the Developer on account of Termination of this Agreement for any reason whatsoever and that the Developer or any shareholder thereof shall not have any further right or claim under any law, treaty, convention, contract or otherwise.

14.5.3 Payment in case of NMC Event of Default

i. Upon Termination of this Agreement on account of the Authority Event of Default, the Developer shall receive from the Authority, the Upfront Payment made.

NMC shall also release the Performance Guarantee Security, of subsisting value.

ii. Payment for the construction done equivalent to 90% value of the work done. The amount payable to the Developer shall be adjusted with the amount it has received from the Sales Proceeds and other revenues.

iii. The raw material, or any other goods brought on the Project Site for the purpose of Project and lying at Project Site can be taken by the Developer and no separate cost shall be paid by NMC for any such raw material or goods etc. However any constructed part, fixed parts/fittings etc shall not be allowed to be removed and taken away by the Developer. The Site Office and its furniture and fittings shall be the property of NMC. The Ticketing counter on the fourth floor shall be the property of NMC

14.6 Rights of the Authority on Termination

Upon Termination of this Agreement for any reason whatsoever, NMC shall have the power and authority to:

i. Enter upon the Site and take exclusive possession and control of Project Site and Project Facilities forthwith;

ii. Prohibit the Developer and any Person claiming through or under the Developer from entering upon the Project Site and Project Facilities and dealing with or any part thereof.

iii. Revoke development and sales rights under this Development Agreement, if any pending to be given to the Developer;

iv. All other movable or detachable assets, including plant, machinery, construction equipment, raw material, stocks etc lying on the Site and which form part of the Project Assets shall become property of NMC on the date this Development Agreement is terminated.

14.7 Liability for other losses, damages etc.

Save and except as expressly provided in this Article 14, neither Party hereto shall be liable in any manner whatsoever to the other Party is respect of any loss, damage, cost, expense, claims, demands and proceeding relating to or arising out of occurrence or existence of any Force Majeure Event.

Notwithstanding anything contained in this Agreement, NMC shall not, as a consequence of Termination or otherwise, have any obligation whatsoever including but not limited to obligations as to compensation for loss of employment, continuance or regularization of employment, absorption or re-employment on any ground, in relation to any person in the employment of or engaged by Developer in connection with the Project, and the handover of the Project Facilities by Developer to NMC shall be free from any such obligation.

14.8 Survival of Right of Parties

Termination pursuant to any of the provisions of this Agreement shall be without prejudice to accrued right of either Party including its rights to claim and recover money damages and other rights and remedies which it may have in law or contract. The rights and obligations of either Party under this Agreement, including without limitation those relating to the Termination Payment, shall survive the Termination but only to the extent such survival is necessary for giving effect to such rights and obligations.

14.9 Foreclosure

At any time should the parties mutually decide to abandon or reduce the scope of work for any reason whatsoever and hence not require the whole or any part of the works to be carried out under the Agreement, either of the parties shall give notice in writing to that effect to the other party and the other party shall act accordingly in the matter within 30 days.

On foreclosure of the Development and Sales Period by NMC, NMC shall return the Upfront Premium paid by the Developer and the subsisting Performance Security and also allow payments of work done by the Developer at the per square metre rates or by detailed valuation as derived by the Developer at the time of bidding less 20%.This payable amount shall be adjusted/recovered from the payments accrued to the Developer out of the advances/sales proceeds received by it

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Article 15. Suspension of Developer's Rights

15.1 Suspension upon Developer Event of Default

Upon occurrence of a Developer Event of Default, NMC shall, without prejudice to its other rights and remedies under this Agreement including its rights of Termination, (i) suspend all rights of the Developer under this Agreement and (ii) be entitled to exercise such rights itself and perform the obligations hereunder or authorize any other person to exercise or perform the same on its behalf during such suspension (the "**Suspension**"). Suspension hereunder shall be effective forthwith upon issue of notice by NMC to the Developer and may extend up to a period not exceeding 180 (one hundred and eighty) days from the date of issue of such notice; provided that upon written request from the Developer and the Lenders' representative, NMC shall extend the aforesaid period of 180 (one hundred and eighty) days by a further period not exceeding 90 (ninety) days.

15.2 Authority to act on behalf of Developer

a) During the period of Suspension, NMC shall be entitled to make withdrawals from the bank account of the Developer for meeting the costs incurred by it for remedying and rectifying the cause of Suspension, and thereafter for defraying the expenses.

b) During the period of Suspension hereunder, all rights and liabilities vested in the Developer in accordance with the provisions of this Agreement shall continue to vest therein and all things done or actions taken, including expenditure incurred by NMC for discharging the obligations of the Developer under and in accordance with this Agreement and the Project Agreements, shall be deemed to have been done or taken for and on behalf of the Developer and the Developer undertakes to indemnify NMC for all costs incurred during such period. The Developer hereby licenses and sub-licenses respectively, NMC or any other person authorized by it under Clause 15.1 to use during Suspension, all Intellectual Property belonging to or licensed to the Developer with respect to the Project and its design, engineering, construction, Operation and Maintenance, and which is used or created by the Developer in performing its obligations under the Agreement.

15.3 Revocation of Suspension

a) In the event that the Developer has rectified or removed the cause of Suspension within a period not exceeding 90 (ninety) days from the date of Suspension, NMC shall revoke the Suspension forthwith and restore all rights of the Developer under this Agreement. For the avoidance of doubt, the Parties expressly agree that NMC may, in its discretion, revoke the Suspension at any

time, whether or not the cause of Suspension has been rectified or removed hereunder.

b) Upon the Developer having cured the Developer Event of Default within a period not exceeding 90 (ninety) days from the date of Suspension, NMC shall revoke the Suspension forthwith and restore all rights of the Developer under this Agreement.

15.4 Termination

At any time during the period of Suspension under this Article 15, the Developer may by notice require NMC to revoke the Suspension and issue a Termination Notice. Subject to the rights of the Lenders' representative to undertake substitution in accordance with the provisions of this Agreement and within the period specified in Clause 15.4, NMC shall, within 15 (fifteen) days of receipt of such notice, terminate this Agreement under and in accordance with Article 14.

Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within 180 (one hundred and eighty) days from the date of Suspension hereunder or within the extended period, if any, set forth in Clause 15.1, the Development Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all the provisions of this Agreement shall apply, mutatis mutandis, to such Termination as if a Termination Notice had been issued by the Authority upon occurrence of a Developer Event of Default.

Article 16. Transfer Procedure

16.1 The Project Facilities shall be handed over and transferred to the buyers on the signing of the Sale Agreement and disbursement of the sale price by the buyers. The unsold Project Facilities shall be transferred to NMC on the Transfer Date as per the Development Agreement, being the date on which this Agreement shall come to an end by efflux of time or the date of Termination, whichever is earlier.

16.2 The Developer shall initiate the process of transfer of the Project Assets created after making full repairs, corrections, rectifications etc., as may be required, in good and working condition at least 90 days before the date on which this Agreement shall end or is terminated.

16.3 The Developer is bound to keep the structures standing on the land as it is, and on the Termination of the Agreement handover the same in good condition, i.e. to maintain the same during the stipulated period, subject only to the changes caused by reasonable wear and tear or irresistible force, and to allow the NMC and his agents, at all reasonable times during the term, to enter upon the property and inspect the condition thereof and give or leave notice of any defect in such condition; and, when such defect has been caused by any act or default on the part of the Developer, his servants or agents, the Developer is bound to make it good within three months after such notice has been given or left;

16.4 The Developer shall not demolish any part or entire structure at any point of time, he shall not remove any fixtures which is part of the structures but not permanently attached to the structure, any lamp post or fittings erected or attached to structure as part of design shall not be removed by Developer post termination or completion of agreement.

16.5 The Developer undertakes to initiate the process of transfer and handovers upon Termination of this Agreement or upon expiry of the Development Agreement or otherwise, for which no separate notice is necessary. In case of failure to do so, for every day under such circumstances, the Developer shall pay a sum equal to Rs.5.00 Lakhs per day towards Damages or unauthorized occupation of Project Site.

16.6 The Developer shall bear all cost and comply with all other requirements as may be prescribed or required under Applicable Laws for completing the divestment and assignment of all rights, title and interest of the Developer in the Project and Project Facilities free from all Encumbrances, absolutely unto NMC or to its nominee. Notwithstanding above, it shall be within the right of the NMC to enter into the premises and take over the possession in the case of breach of any conditions of this Article 16, at the end of agreement.

16.7 The Parties shall cooperate on a best effort basis and take all necessary measures, in good faith, to achieve a smooth transfer of the Project in accordance with the provisions of this Agreement so as to protect the safety of and avoid undue delay or inconvenience, other members of the public or the lawful occupiers of any part of the Site.

16.8 The Developer shall hand over the Maintenance Manual and the As-Built Drawings at the end of the 5th year and in case of default in the same, the Performance Security shall be appropriated by NMC.

Article 17. Change in Law

17.1 Change in law shall mean the occurrence or coming into force of any of the following, after the Appointed Date:

i. the enactment of any new Indian Law;

ii. The repeal, modification or re-enactment of any existing Indian law including Rules and Regulations there under;

iii. A change in the interpretation or application of any Indian law by a court of record.

iv. The commencement of any Indian law which has not entered in effect until the date of this Agreement.

Provided that change in Law shall not include:

a) Coming into effect, after the Appointed Date, of any provision or statute which is already in place as of the Appointed Date,

b) Any new law or any change in the existing law under the active consideration of or in the contemplation of the GoI or any Government Agency as of the Appointed Date which is matter of public knowledge,

c) Any change in the rate of Taxes

17.2 Subject to Change in Law resulting in Material Adverse Effect and subject to the Developer taking necessary measures to mitigate the impact or likely impact of Change in Law on the Project, if as a consequence of a Change in law, the Developer is obliged to incur Additional Costs then, the Parties may by mutual consent modify the term of the Agreement in order to suitably compensate the Developer towards Additional Costs.

17.3 Upon occurrence of a change in Law, the Developer may, notify NMC of the following:

i. the nature and an impact of Change in Law on the Project

ii. in sufficient detail, the estimate of the additional cost likely to be incurred by the Developer on account of Change in Law

iii. The measures, which the Developer has taken or proposed to take to mitigate the impact of change in Law, including in particular, minimizing the additional cost

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iv. The relief sought by the Developer

17.4 NMC shall not incur any additional cost for compensating the Developer in case of Change in Law.

17.5 In-case of conflict between Central Government and State Government law for the same issue/clause, the State Government law shall prevail.

Article 18. Dispute Resolution

18.1 Amicable Resolution

a) If any difference of opinion or dispute of whatever nature arises between the Parties, out of or in relation to this Agreement, (the "**Dispute**") shall in the first instance be attempted to be resolved amicably in accordance with the procedure set forth in clause (a) below and if not resolved amicably in accordance with clause(a), then the procedure set forth in clause (b & c) below shall apply.

a) The Parties may refer such Dispute to the Chief Engineer of NMC or a similar level officer appointed by the Commissioner of NMC, for settlement of dispute amicably. Upon such reference, the Parties shall meet at the earliest mutual convenience and in any event within 15 days of such reference to discuss and attempt to amicably resolve the Dispute. If the Dispute is not amicably resolved within 15 (fifteen) days of such meeting between the two, either party may refer the Dispute to the Commissioner.

b) If such dispute is not amicably resolved even after the meeting with the Commissioner, then it shall be decided by reference to arbitration to an Arbitrator. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "Rules") or such other rules as may be mutually agreed by the Parties, and shall be subject to provisions of the Arbitration and Conciliation Act, 1996 and its subsequent amendments.

c) The Arbitrator shall issue a reasoned award and such award shall be final and binding on the Parties. The venue of arbitration shall be Nagpur and the language of arbitration shall be English.

18.2 Performance during Dispute

Pending the submission of and/or decision on a Dispute and until the dispute resolution is declared; the Parties shall continue to perform their respective obligations under this Agreement without prejudice to a final adjustment in accordance with such award and rights and obligations of the Parties shall remain in full force and effect.

Article19.Miscellaneous

19.1 Assignment and Charges

a) The Developer shall not assign in favor of any Person this Agreement or the right, benefits and obligations hereunder save and except with prior consent of the NMC.

b) The Developer shall not create nor shall permit any Encumbrance over the Project Land and the constructed Project Facilities. However, the restraints set forth in this Clause 19.1 shall not apply to:

(i) liens arising by operation of law (or by an agreement evidencing the same) in the ordinary course of business of the Project;

(ii) pledges / hypothecation of goods / assets and their related documents of title as security only for indebtedness to the Lenders under the Financing Agreements and/or for working capital arrangements for the Project;

(iii) assignment of rights, interest and obligations of the Developer to or in favour of the Lenders' Representative as nominee and for the benefit of the Lenders, to the extent covered by and in accordance with the Substitution Agreement as security for financing provided by Lenders under the Financing Documents; and

(iv) liens or encumbrances required by any Applicable Law.

c) The Developer cannot create the mortgage of the Project land under any circumstances.

19.2 Accounts

Collection & Handling

The Developer shall be liable for the loss of any Sales Proceeds collected by it or its agents or servants whether by fraud, misappropriation, theft, accident, event of Force Majeure or any other event or circumstance whatsoever.

The Developer shall put in place, prior to the receipt of any of the Sales Proceeds, security measures necessary for handling, deposit and protection of Sales Proceeds from loss, theft or destruction. Notwithstanding such security measures (i) all money being held by the Developer shall at all times be insured against loss due to but no limited to theft, loss, fire and natural disasters and (ii) the Developer shall remain liable for timely payment of Revenue Share to NMC in accordance with the terms of this Agreement.

Monthly Sales Statement

During the Contract Period, the Developer shall furnish to the NMC, within 7 (seven) days of completion of each month, a statement of Sales.

The Developer shall also furnish to the NMC its quarterly GST Returns and a certificate from its Statutory Auditor indicating the Expenditure incurred on the Project and revenue earned from sales from this Project and such other information as NMC may reasonably require, at specified intervals, in discharge of its statutory functions.

Books of Account

The Developer shall maintain books of accounts recording all its receipts (including all revenues derived/collected by it from or on account of the Project and/ or its use), income, expenditure, payments (including payments into the NMC Account), assets and liabilities, in accordance with this Agreement, Good Industry Practice, Applicable Laws and Applicable Permits.

The Developer shall provide 2 (two) copies of its Balance Sheet, Cash Flow Statement and Profit and Loss Account, along with a report thereon by its Statutory Auditor, within 90 (ninety) days of the close of the Accounting Year to which they pertain and such audited accounts, save and except where expressly provided to the contrary, shall form the basis of payments by either Party under this Agreement.

NMC shall have the right to inspect the records of the Developer during office hours and require copies of relevant extracts of books of accounts, duly certified by the Statutory Auditor, to be provided to NMC for verification of basis of payments, and in the event of any discrepancy or error being found, the same shall be rectified and such rectified account shall form the basis of payments by either Party under this Agreement.

On or before the thirty-first day of May each Year, the Developer shall provide to NMC, for the preceding Accounting Year, a statement duly audited by its Statutory Auditors giving summarised information on (a) the traffic count for each category of persons using the commercial parking facility and liable for payment of User Fee thereof, (b) Fee charged and received and other revenues derived from the Project, and (c) such other information as NMC may reasonably require.

19.3 Governing Law and Jurisdiction

This Agreement shall be Govern by Indian Laws. The Courts at Nagpur shall have jurisdiction over all matters arising out or relating to this Agreement.

19.4 Waiver

a) Waiver by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement:

i. Shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions or obligations under this Agreement;

ii. Shall not be effective unless it is in writing and execute by a duly authorized representative of such Party; and

iii. Shall not affect the validity or enforceability in this Agreement in any manner.

b) Neither in failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or

any obligation hereunder nor time or other indulgence granted by a Party of the other Party shall be treated or deemed as waiver / breach of any terms, conditions and provisions of this Agreement.

19.5 Amendment

This Agreement and the Schedules together constitute a complete and exclusive understanding of the terms of the Agreement between the parties on the subject hereof and no amendment or modification hereto shall be valid and effective unless agreed to by all the Parties hereto and provided in writing.

19.6 Notices

All notices of communications required or otherwise to be given hereunder shall be in the English Language and sent by facsimile and email/s followed by a signed original by prepaid air or speed post class mail addressed to the addressee at the Registered Office or the Principal place of business, as the case may be, as set forth below or at such other place as may be designated in writing from time to time hereafter for the Parties for the receipt of such notices or communications:

To NMC:

Nagpur Municipal Corporation
Civil Lines, Mahanagar Palika Marg,
Nagpur.

Kind Attention: Office of the Executive Engineer (Project)
Phone: 0712-254283
Email: eeprojectnmc@gmail.com

To Developer:
M/S Prafulved Infra Pvt.Ltd.
F No 501, Shrikrishna Residency,
Dharampeth, Nagpur Maharashtra, 440010
Kind Attention: Praful N Deshmukh
Phone: 9604078999
Email: prafuldeshmukh9@gmail.com

19.7 Severability

If for any reason whatsoever any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties shall negotiate in good faith with a view to agreeing upon one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable. Provided failure to agree upon any such provisions shall not be subject to Dispute Resolution under this Agreement or otherwise.

19.8 Language

All notices require to be given under this Agreement and all communications, documentation and proceeding which are in any way relevant to this Agreement shall be in writing and in English Language.
Notices or instructions issued in Marathi shall also prevail, the Developer shall interpret accordingly. In case of any ambiguity the Developer can seek written clarifications from NMC.

19.9 Exclusion of Implied Warranties

This Agreement expressly excludes any warranty, condition or other undertaking implied by law or by custom or otherwise arising out of any other agreement between the Parties and any other representation by any Part not contained in a binding legal agreement executed by the Parties.

19.10 No Partnership

Nothing contained in this agreement shall be construed or interpreted as constituting a partnership between the Parties. Neither Party shall have any authority to bind the other in any manner whatsoever.

19.11 Interest on delayed Payments and Right of Set Off

Any sum which becomes payable under any of the provisions of this agreement by one Party to the other Party shall, if the same be not paid within the time allowed for payment thereof or within 30 days of receiving demand, whichever is less, and same shall be deemed to be a debt owned by the Party responsible for payment thereof to the Party entitled to receive the same. Such sum shall until payment thereof carry interest at prevailing bank rate (of State Bank of India) plus 2% per annum from the due date for payment hereof until the same is paid to or otherwise realized by the Party entitles to the same save as otherwise specifically mentioned in the respective clause. Without prejudice to any other right or remedy that may be available under this Agreement or otherwise under Law, the Party entitled to receive such amount shall also have the right of set off.

19.12 Entire Agreement

This Development Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Developer arising from the Request for Proposal shall be deemed to form part of this Development Agreement and treated as such.

19.13 Third Parties

This Agreement is intended solely for the benefit of the Parties and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement.



19.14 Successors and Assigns

This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns.

19.15 Duty and Charges

All duties and charges in respect of execution this Agreement, including the Stamp Duty and registration, shall be borne by the Developer.

19.16 Counterparts

This Agreement may be executed in 2 counterparts, each of which when executed and delivered shall constitute an original of this Agreement but shall together constitute one and only the Agreement.

IN WITNESS THEREOF THE, PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED SEALED AND DELIVERED

For and on behalf of NMC by:

9.2.22

(Pradeep R Khawle)
(Chief Engineer PWD ,NMC Nagpur)

Chief Engineer
Nagpur Municipal Corporation

Authorized by the Resolution passed by the Governing Body of the Nagpur Municipal Corporation on 22nd day of December 2021.

For and on behalf of Developer by:

9.2.22.

(Praful N Deshmukh)
(Director)

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THE COMMON SEAL OF DEVELOPER has been affixed pursuant to the resolution passed by the Board of Directors of the Developer at its meeting held on the 5th day of February 2021 hereunto affixed in the presence of both, Directors, who has signed these presents in token thereof.

In the presence of following:

Witnesses: 1)

Navesh Borkar
EE (Project) NMC

2)

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 2023.

SCHEDULES

Schedule 1

Details and Maps of Project Site

(to be attached)

Schedule-2

Environmental Impact Assessment Study

(to be attached)

Schedule - 3

FORMAT OF ACKNOWLEDGEMENT OF PROJECT SITE

[on the letter head of the DEVELOPER]

(See Clause 4.1.3)

FORMAT OF ACKNOWLEDGEMENT OF PROJECT SITE [•]
Date:
To:
[•]
Re: Handing over of Project Site [•]

Dear Sir,
We write in reference in to the Development Agreement dated [•], entered into by us with authority. As per the requirements of Article 4.1.3(b) of the said Development Agreement, this is to acknowledge receipt of Project Site from the Authority.

We further acknowledge that the project site is unencumbered and is fit and immediately available for the purpose of development of Assets thereon.

We have undertaken a due diligence over the project site, ourselves/through our shareholders. For the purposes of this Agreement,

We further acknowledge that we, or any entity claiming under us, shall have no recourse against the Authority if it is, at a later date, found that the Project Site is deficient in any manner whatsoever, and in the event of any mistake made or misapprehension harboured by us in relation to any of the foregoing provisions mentioned above(deficiency).If a Deficiency is found, we acknowledge and agree that we shall, at its own cost, take all appropriate measures to remedy the same in order to undertake the Project.

It is clarified that all fossils, antiquities, structures and/or other remains or things either of archaeological or of particular geological interest discovered at project site or in the course of carrying out any work shall not be the our property and we shall have no right or interest in such fossils, antiquities and structures.

For and on behalf of

Signature of Authorized Representative Seal/

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR

Schedule- 4

Form of Performance Security

(Refer Clause 10.1)

The Commissioner,
Nagpur Municipal Corporation
Civil Lines,
Mahanagar Palika Marg,
Nagpur.

WHEREAS:

A. Nagpur Municipal Corporation ("**NMC**") and ..... (the "**Developer**"), have entered into a Development Agreement dated ..... (the "**Agreement**") whereby NMC has agreed to grant the Developer the Concession for implementing the project for planning and development of Multi Utility Shopping Complex at Jaiprakash Nagar ("**Project**") on design, build, finance, operate and sales("**DBFOS**") basis, subject to and in accordance with the provisions of the Development Agreement.

B. The Agreement requires the Developer to furnish a Performance Security to NMC in a sum of Rs. **[•] (Rupees •)** (the "**Guarantee Amount**") as security for due and faithful performance of its obligations, under and in accordance with the Agreement, during for the Construction Work (as defined in the Agreement).

C. We, ...through our Bank.....Branch at..... (the "**Bank**") have agreed to furnish this Bank Guarantee towards the Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Developer's obligations during the Construction Works, under and in accordance with the Agreement, and agrees and undertakes to pay to NMC, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Developer, such sum or sums up to an aggregate sum of the Guarantee Amount as NMC shall claim, without NMC being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the authorised representative of NMC that the Developer has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that NMC shall be the sole judge as to whether the Developer is in default in due and faithful performance of its obligations during the Construction Work under the Agreement and its decision

that the Developer is in default shall be final, and binding on the Bank, notwithstanding any differences between NMC and the Developer, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Developer for any reason whatsoever.

3. In order to give effect to this Guarantee, NMC shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Developer and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.

4. It shall not be necessary, and the Bank hereby waives any necessity, for NMC to proceed against the Developer before presenting to the Bank its demand under this Guarantee.

5. NMC shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Developer contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by NMC against the Developer, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to NMC, and the Bank shall not be released from its liability and obligation under these presents by any exercise by NMC of the liberty with reference to the matters aforesaid or by reason of time being given to the Developer or any other forbearance, indulgence, act or omission on the part of NMC or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

6. This Guarantee is in addition to and not in substitution or derogation of any other guarantee or security now or which may hereafter be held by NMC in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Developer under the Agreement.

7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee will remain in force until compliance of the conditions specified in paragraph 8 below and unless a demand or claim in writing is made by NMC on the Bank under this Guarantee, no later than 6 (six) months from the date of expiry of this Guarantee, all rights of NMC under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

8. The Performance Security will be valid for 90 days after the completion of 60 (sixty) months from the appointed Date.

9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of NMC in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.

10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of NMC that the envelope was so posted shall be conclusive.

11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for a period specified in Paragraph 8 above.

Signed and sealed this ..... day of ....., 20..... at .....

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

i. The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee

ii. The address, telephone number and other details of the Head Office of the Bank as well as of issuing Branch should be mentioned on the covering letter of issuing Branch.

Schedule- 5

Standards and Specifications for Construction with Quality Assurance Manual

As specified in the Volume 3- Design Proposal

Schedule- 6

Safety Requirements during and post Construction

As specified in the Volume 3- Design Proposal

Schedule- 7

Operations and Maintenance Manual

As specified in the Volume 3- Design Proposal

Schedule- 8

Form of Substitution Agreement

DRAFT SUBSTITUTION AGREEMENT

THIS SUBSTITUTION AGREEMENT is entered into on this the ..... day of ..... 20....

AMONGST

1. Nagpur Municipal Corporation, the urban local body for the city of Nagpur, duly established under and functioning as per the MMC Act, 1949 ("**Act**") having its office at Nagpur Municipal Corporation, Civil Lines, Mahanagar Palika Marg, Nagpur (hereinafter referred to as "**NMC**", which expression shall, unless excluded by or repugnant to the context or meaning thereof, mean and include its administrators, successors and assigns)OF ONE PART;acting through it [•] ;

2. ..... LIMITED, a company incorporated under the provisions of the Companies Act, 1956 and having its registered office at....., (hereinafter referred to as the "**Developer**" which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns and substitutes);

3.name and particulars of Lenders' Representative and having its registered office at ....., acting for and on behalf of the Lenders as their duly authorised agent with regard to matters arising out of or in relation to this Agreement (hereinafter referred to as the "Lenders' Representative", which expression shall unless repugnant to the context or meaning thereof include its successors and substitutes);

WHEREAS:

A. NMC has entered into a Development Agreement dated ..... with the Developer (the "**Development Agreement**") for the Project on design, build, finance, operate and sales basis (DBFOS), and a copy of which is annexed hereto and marked as **Annex-A** to form part of this Agreement.

B. Lenders have agreed to finance the Project in accordance with the terms and conditions set forth in the Financing Documents.

C. Lenders have requested the Authority to enter into this Substitution Agreement for securing their interests through assignment, transfer and substitution of the

Concession to a Nominated Company in accordance with the provisions of this Agreement and the Development Agreement.

D. In order to enable implementation of the Project including its financing, construction, operation and maintenance, the Authority has agreed and undertaken to transfer and assign the Concession to a Nominated Company (hereinafter defined) in accordance with the terms and conditions set forth in this Agreement and the Development Agreement.

NOW THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

1.1 Definitions and Interpretation

1.1.1 Definitions

In this Substitution Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

"**Agreement**" means this Substitution Agreement and any amendment thereto made in accordance with the provisions contained in this Agreement;

"**Financial Default**" means occurrence of a any breach of the terms and conditions of the Financing Agreements or a continuous default in Debt Service by the Developer for a minimum period of 3 (three) months;

"**Lenders' Representative**" means the person referred to as the Lenders' Representative in the foregoing Recitals;

"**Nominated Company**" means a company, incorporated under the provisions of the Companies Act, 1956, selected by the Lenders' Representative, on behalf of Lenders, and proposed to the Authority for assignment/transfer of the Concession as provided in this Agreement;

"**Notice of Financial Default**" shall have the meaning ascribed thereto in Sub-clause 1.3.2 (a) of Clause 1.3.2; and

"**Parties**" means the parties to this Agreement collectively and "Party" shall mean any of the Parties to this Agreement individually.

1.1.2 Interpretation

(a) References to Lenders' Representative shall, unless repugnant to the context or meaning thereof, mean references to the Lenders' Representative, acting for and on behalf of Lenders.

(b) References to Clauses are, unless stated otherwise, references to Clauses of this Agreement.

(c) The words and expressions beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein, and the words and expressions used in this Agreement and not defined herein but defined in the Development Agreement shall, unless repugnant to the context, have the meaning ascribed thereto in the Development Agreement.

(d) The rules of interpretation stated in Clauses 1.2 of the Development Agreement shall apply, mutatis mutandis, to this Agreement.

1.2 Assignment

1.2.1 Assignment of rights and title

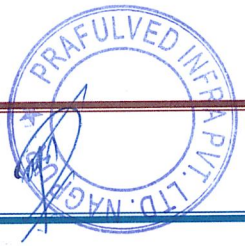
The Developer hereby agrees to assign the rights, title and interest in the Concession to, and in favour of, the Lenders' Representative pursuant to and in accordance with the provisions of this Agreement and the Development Agreement by way of security in respect of financing by the Lenders under the Financing Agreements.

1.3 Substitution of the Developer

1.3.1. Rights of substitution

(a) Pursuant to the rights, title and interest assigned under Clause 1.2.1, the Lenders' Representative shall be entitled to substitute the Developer by a Nominated Company under and in accordance with the provisions of this Agreement and the Development Agreement.

(b) The Authority hereby agrees to substitute the Developer by endorsement on the Development Agreement in favour of the Nominated Company selected by the Lenders' Representative in accordance with this Agreement. (For the avoidance of doubt, the Lenders or the Lenders' Representative shall not be entitled to operate and maintain the Project as Developer either individually or collectively).



1.3.2 Substitution upon occurrence of Financial Default

(a) Upon occurrence of a Financial Default, the Lenders' Representative may issue a notice to the Developer (the "**Notice of Financial Default**") along with particulars thereof, and send a copy to the Authority for its information and record. A Notice of Financial Default under this Clause 0 shall be conclusive evidence of such Financial Default and it shall be final and binding upon the Developer for the purposes of this Agreement.

(b) Upon issue of a Notice of Financial Default hereunder, the Lenders' Representative may, without prejudice to any of its rights or remedies under this Agreement or the Financing Agreements, substitute the Developer by a Nominated Company in accordance with the provisions of this Agreement.

(c) At any time after the Lenders' Representative has issued a Notice of Financial Default, it may by notice require the Authority to suspend all the rights of the Developer and undertake the operation and maintenance of the Project in accordance with the provisions of Article 15 of the Development Agreement, and upon receipt of such notice, the Authority shall undertake Suspension under and in accordance with the provisions of the Development Agreement. The aforesaid Suspension shall be revoked upon substitution of the Developer by a Nominated Company, and in the event such substitution is not completed within 180 (one hundred and eighty) days from the date of such Suspension, the Authority may terminate the Development Agreement forthwith by issuing a Termination Notice in accordance with the provisions of the Development Agreement; provided that upon written request from the Lenders' Representative and the Developer, the Authority may extend the aforesaid period of 180 (one hundred and eighty) days by a period not exceeding 90 (ninety) days. For the avoidance of doubt, the Authority expressly agrees and undertakes to terminate the Development Agreement forthwith, upon receipt of a written request from the Lenders' Representative at any time after 240 (two hundred and forty) days from the date of Suspension hereunder.

1.3.3 Substitution upon occurrence of Developer Event of Default

(a) Upon occurrence of a Developer Event of Default, the Authority shall by a notice inform the Lenders' Representative of its intention to issue a Termination Notice and grant 15 (fifteen) days' time to the Lenders' Representative to make a representation, stating the intention to substitute the Developer by a Nominated Company.

(b) In the event that the Lenders' Representative makes a representation to the Authority within the period of 15 (fifteen) days specified in Sub-clause (a) of

Clause 1.3.3, stating that it intends to substitute the Developer by a Nominated Company, the Lenders' Representative shall be entitled to

undertake and complete the substitution of the Developer by a Nominated Company in accordance with the provisions of this Agreement within a period of 180 (one hundred and eighty) days from the date of such representation, and the Authority shall either withhold Termination or undertake Suspension for the aforesaid period of 180 (one hundred and eighty) days; provided that upon written request from the Lenders' Representative and the Developer, the Authority shall extend the aforesaid period of 180 (one hundred and eighty) days by a period not exceeding 90 (ninety) days.

1.3.4 Procedure for substitution

(a) The Authority and the Developer hereby agree that on or after the date of Notice of Financial Default or the date of representation to the Authority under Clause 1.3.2 and Clause 1.3.3 above as the case may be, the Lenders' Representative may, without prejudice to any of the other rights or remedies of the Lenders, invite, negotiate and procure offers, either by private negotiations or public auction or tenders for the take over and transfer of the Project including the Concession to the Nominated Company upon such Nominated Company's assumption of the liabilities and obligations of the Developer towards the Authority under the Development Agreement and towards the Lenders under the Financing Agreements.

(b) To be eligible for substitution in place of the Developer, the Nominated Company shall be required to fulfil the eligibility criteria that were laid down by the Authority for short-listing the bidders for award of the Concession; provided that the Lenders' Representative may represent to the Authority that all or any of such criteria may be waived in the interest of the Project, and if the Authority determines that such waiver shall not have any material adverse effect on the Project, it may waive all or any of such eligibility criteria.

(c) Upon selection of a Nominated Company, the Lenders' Representative shall request the Authority to:

(i) accede to transfer to the Nominated Company the right to construct, operate and maintain the Project in accordance with the provisions of the Development Agreement;

(ii) endorse and transfer the Concession to the Nominated Company, on the same terms and conditions, for the residual Concession Period; and

(iii) enter into a Substitution Agreement with the Lenders' Representative and the Nominated Company on the same terms as are contained in this Agreement.

(d) If the Authority has any objection to the transfer of Concession in favour of the Nominated Company in accordance with this Agreement, it shall within 15 (fifteen) days from the date of proposal made by the Lenders' Representative, give a reasoned order after hearing the Lenders' Representative. If no such objection is raised by the Authority, the Nominated Company shall be deemed to have been accepted. The Authority thereupon shall transfer and endorse the Concession within 15 (fifteen) days of its acceptance/deemed acceptance of the Nominated Company; provided that in the event of such objection by the Authority, the Lenders' Representative may propose another Nominated Company whereupon the procedure set forth in this Clause 0 shall be followed for substitution of such Nominated Company in place of the Developer.

1.3.5 Selection to be binding

The decision of the Lenders' Representative and the Authority in selection of the Nominated Company shall be final and binding on the Developer. The Developer irrevocably agrees and waives any right to challenge the actions of the Lenders' Representative or the Lenders or the Authority taken pursuant to this Agreement including the transfer/assignment of the Concession in favour of the Nominated Company. The Developer agrees and confirms that it shall not have any right to seek revaluation of assets of the Project or the Developer's shares. It is hereby acknowledged by the Parties that the rights of the Lenders' Representative are irrevocable and shall not be contested in any proceedings before any court or Authority and the Developer shall have no right or remedy to prevent, obstruct or restrain the Authority or the Lenders' Representative from effecting or causing the transfer by substitution and endorsement of the Concession as requested by the Lenders' Representative.

1.4 Project Agreements

1.4.1 Substitution of Nominated Company in Project Agreements

The Developer shall ensure and procure that each Project Agreement contains provisions that entitle the Nominated Company to step into such Project Agreement, in its discretion, in place and substitution of the Developer in the event of such Nominated Company's assumption of the liabilities and obligations of the Developer under the Development Agreement.

1.5 Termination of Development Agreement

1.5.1. Termination upon occurrence of Financial Default

At any time after issue of a Notice of Financial Default, the Lenders' Representative may by a notice in writing require the Authority to terminate the Development Agreement forthwith, and upon receipt of such notice, the Authority shall undertake Termination under and in accordance with the provisions of Article 14 of the Development Agreement.

1.5.2 Termination when no Nominated Company is selected

In the event that no Nominated Company acceptable to the Authority is selected and recommended by the Lenders' Representative within the period of 180 (one hundred and eighty) days or any extension thereof as set forth in Sub-clause 0 of Clause 0, the Authority may terminate the Development Agreement forthwith in accordance with the provisions thereof.

1.5.3. Realisation of Debt Due

The Authority and the Developer hereby acknowledge and agree that, without prejudice to their any other right or remedy, the Lenders' Representative is entitled to receive from the Developer, without any further reference to or consent of the Developer, the Debt Due upon Termination of the Development Agreement. For realisation of the Debt Due, the Lenders' Representative shall be entitled to make its claim from the Escrow Account in accordance with the provisions of the Development Agreement and the Escrow Agreement.

1.6 Duration of the Agreement

1.6.1 Duration of the Agreement

This Agreement shall come into force from the date hereof and shall expire at the earliest to occur of the following events:

(a) Termination of the Agreement; or

(b) no sum remains to be advanced, or is outstanding to the Lenders, under the Financing Agreements.

1.7 Indemnity

1.71 General indemnity

(a) The Developer will indemnify, defend and hold the Authority and the Lenders' Representative harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense of whatever kind and nature arising out of any breach by the Developer of any of its obligations under this Agreement or on account of failure of the Developer to comply with Applicable Laws and Applicable Permits.

(b) The Authority will indemnify, defend and hold the Developer harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Authority to fulfil any of its obligations under this Agreement, materially and adversely affecting the performance of the Developer's obligations under the Development Agreement or this Agreement, other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Authority, its officers, servants and agents.

(c) The Lenders' Representative will indemnify, defend and hold the Developer harmless against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of the Lenders' Representative to fulfil its obligations under this Agreement, materially and adversely affecting the performance of the Developer's obligations under the Development Agreement, other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by the Lenders' Representative, its officers, servants and agents.

1.7.2 Notice and contest of claims

In the event that any Party hereto receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under Clause 0 or in respect of which it is entitled to reimbursement (the "Indemnified Party"), it shall notify the other Party responsible for indemnifying such claim hereunder (the "Indemnifying Party") within 15 (fifteen) days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, such approval not to be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim, it may conduct the proceedings in the name of the Indemnified Party and shall bear all costs involved in contesting the same. The Indemnified Party shall provide all cooperation and assistance in contesting any claim and shall sign all such writings and documents as the Indemnifying Party may reasonably require.

1.8 Dispute Resolution

1.8.1 Dispute resolution

(a) Any dispute, difference or claim arising out of or in connection with this Agreement which is not resolved amicably shall be decided by reference to arbitration to a Board of Arbitrators comprising one nominee each of the Authority, Developer and the Lenders' Representative. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi (the "Rules") or such other rules as may be mutually agreed by the Parties, and shall be subject to provisions of the Arbitration and Conciliation Act, 1996.

(b) The Arbitrators shall issue a reasoned award and such award shall be final and binding on the Parties. The venue of arbitration shall be Delhi and the language of arbitration shall be English.

1.9 Miscellaneous Provisions

1.9.1 Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the Courts at Nagpur shall have jurisdiction over all matters arising out of or relating to this Agreement.

1.9.2 Waiver of sovereign immunity

The Authority unconditionally and irrevocably:

(a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;

(b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Authority with respect to its assets;

(c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and

(d) consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

1.9.3 Priority of agreements

In the event of any conflict between the Development Agreement and this Agreement, the provisions contained in the Development Agreement shall prevail over this Agreement.

1.9.4 Alteration of terms

All additions, amendments, modifications and variations to this Agreement shall be effectual and binding only if in writing and signed by the duly authorised representatives of the Parties.

1.9.5 Waiver

(a) Waiver by any Party of a default by another Party in the observance and performance of any provision of or obligations under this Agreement:

(i) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;

(ii) shall not be effective unless it is in writing and executed by a duly authorised representative of the Party; and

(iii) shall not affect the validity or enforceability of this Agreement in any manner.

(b) Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to another Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

1.9.6 No third party beneficiaries

This Agreement is solely for the benefit of the Parties and no other person or entity shall have any rights hereunder.

1.9.7 Survival

(a) Termination of this Agreement:

(i) shall not relieve the Parties of any obligations hereunder which expressly or by implication survive termination hereof; and

(ii) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, shall not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of or caused by acts or omissions of such Party prior to the effectiveness of such termination or arising out of such termination.

(b) All obligations surviving the cancellation, expiration or termination of this Agreement shall only survive for a period of 3 (three) years following the date of such termination or expiry of this Agreement.

1.9.8 Severability

If for any reason whatever any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to dispute resolution under Clause 0 of this Agreement or otherwise.

1.9.9 Successors and assigns

This Agreement shall be binding on and shall inure to the benefit of the Parties and their respective successors and permitted assigns.

1.9.10 Notices

All notices or other communications to be given or made under this Agreement shall be in writing, shall either be delivered personally or sent by courier or registered post with an additional copy to be sent by facsimile or e-mail. The address for service of each Party, its facsimile number and e-mail address are set out under its name on the signing pages hereto. A notice shall be effective upon actual receipt thereof, save that where it is received after 5.30 (five thirty) p.m. on any day, or on a day that is a public holiday, the notice shall be deemed to be received on the first working day following the date of actual receipt. Without prejudice to the foregoing, a Party giving or making a notice or communication by facsimile or e-mail shall promptly deliver a copy thereof personally, or send it by courier or registered post to the addressee of such notice or communication. It is hereby agreed and acknowledged that any Party may by notice change the address to which such notices and communications to it are to be delivered or mailed. Such change shall be effective when all the Parties have notice of it.

1.9.11 Language

All notices, certificates, correspondence and proceedings under or in connection with this Agreement shall be in English.

1.9.12 Authorised representatives

Each of the Parties shall by notice in writing designate their respective authorised representatives through whom only all communications shall be made. A Party hereto shall be entitled to remove and/or substitute or make fresh appointment of such authorised representative by similar notice.

1.9.13 Original Document

This Agreement may be executed in three counterparts, each of which when executed and delivered shall constitute an original of this Agreement.

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 2023.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED SEALED AND DELIVERED
For and on behalf of Nagpur Municipal Corporation by:
(Signature)
(Name)
(Designation)
(Address)
(Fax No.)
(e-mail address)

THE COMMON SEAL OF DEVELOPER has been affixed pursuant to the resolution passed by the Board of Directors of the Developer at its meeting held on the ..... day of 2021 hereunto affixed in the presence of ....., Director, who has signed these presents in token thereof and ....., Company Secretary / Authorised Officer who has countersigned the same in token thereof:

SIGNED, SEALED AND DELIVERED
For and on behalf of LENDERS by the Lenders' Representative:
(Signature)
(Name)
(Designation)
(Address)
(Fax)
(e-mail address)
In the presence of:
1.
2.

1

PRAFULVED INFRA PVT. LTD. NAGPUR

DEVELOPER PRESENTATION



Portfolio Presentation | 2021

PROJECT REPORT

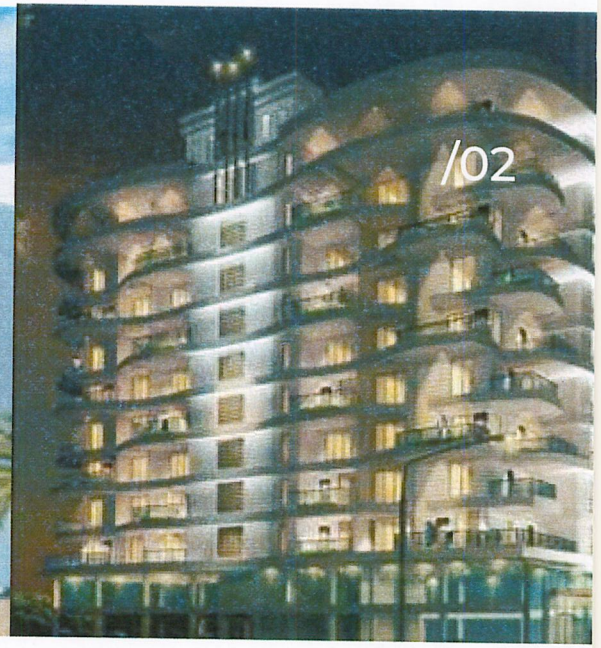
Prafulved Infra Pvt Ltd

Portfolio Presentation | 2021

About Us

Prafulved Infra Pvt. Ltd





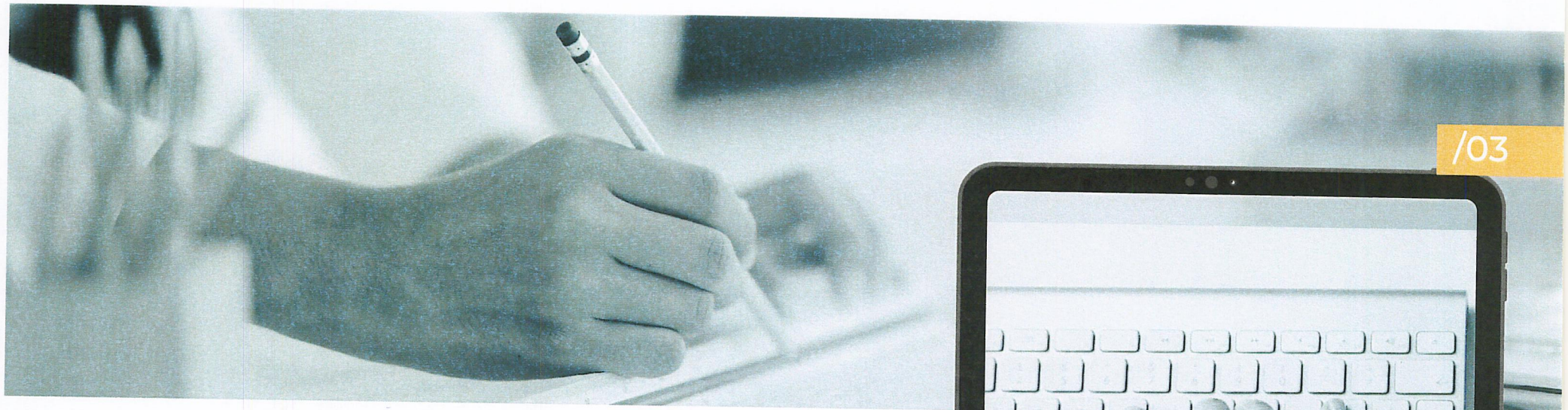
Praful Deshmukh & Co. began as a buildership & general works contractor in 2006. Over the years, the group has undertaken several challenging projects and accumulated skills, know-how and experience in design-and-build solutions, project management services and related engineering work.

Our Vision

To deliver beyond expectations every single time by cultivating consistency and practicing attention to detail.

Mission

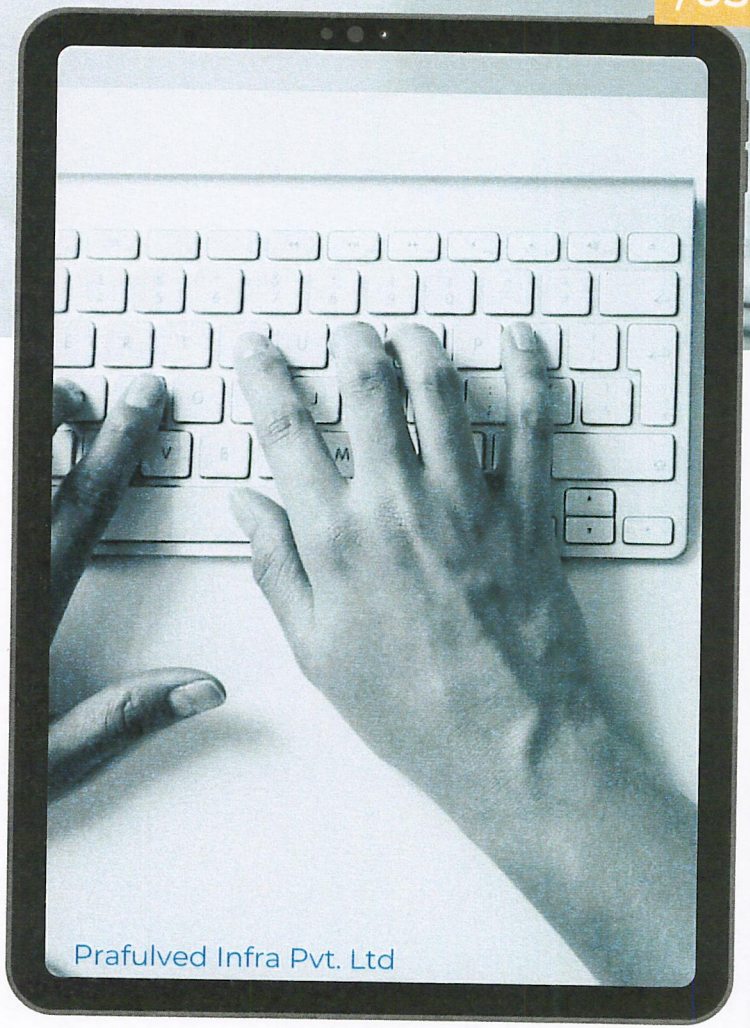
To procure projects at competitive pricing, provide safe working conditions and deliver quality results within a given time frame.

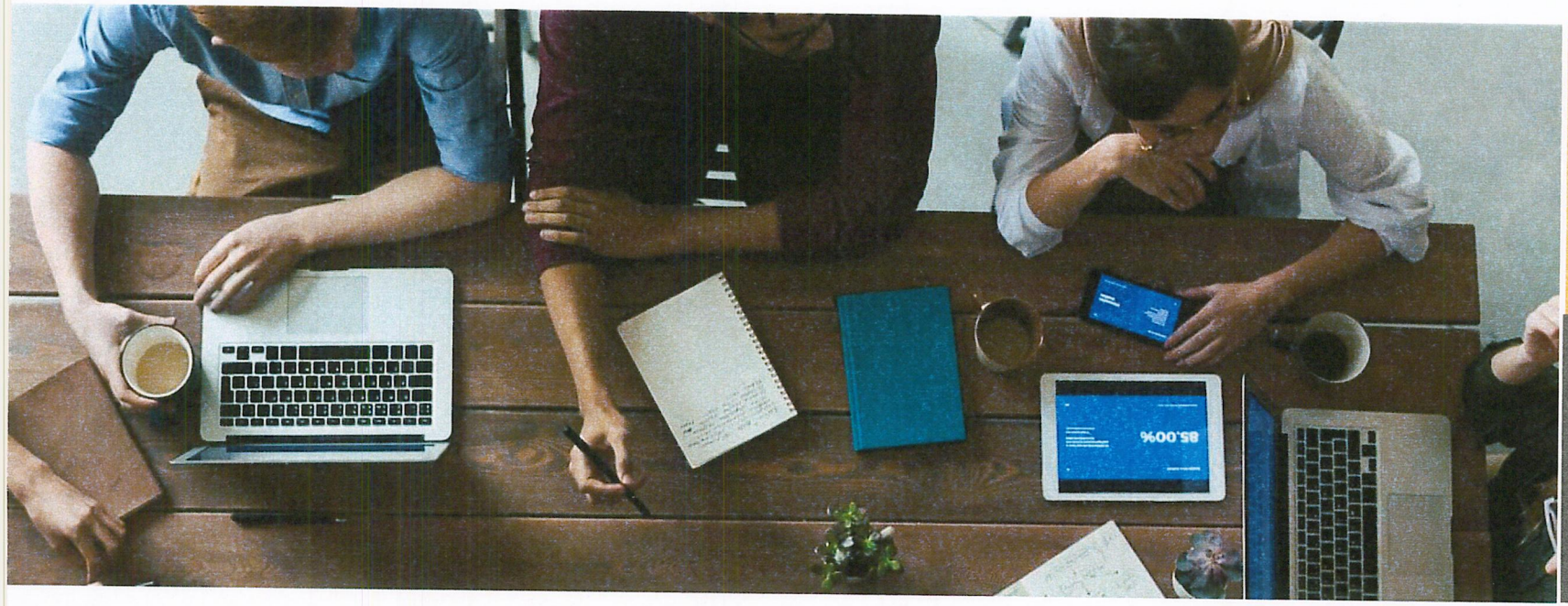


Our Management Team

The business is driven by our two working directors who have collectively accumulated more than 20 years of experience in the building industry. They are deeply involved in all aspects of business development, procurement, project management and administration of the company.

The management team proactively gathers feedback, identifies changes in business environment, reviews work processes and communicates key learning points and company policy to all staff at regular meetings





Our People

We value our team and its pivotal role in successful delivery of our services. Our comprehensive training program ensures our people are equipped with technical, managerial and interpersonal skills.

We firmly believe that a team that receives the right training, accredited certification and practical knowledge is the only one that can remain confident and relevant in an ever-changing market place.

Completed Projects



- Worked for SRA (NMC Nagpur) Built more than 1000 homes
- Constructed 3 Bridges under PWD. Patented with the name ARC Technology at Satara District. Contract Value: 20 Cr.
- Tallest commercial building in Nagpur ,G+18 with 2 basement
- Over 20 Residential & Commercial projects successfully completed

Completed Projects

PRAFULVED INFRA PVT. LTD. NAGPUR

Completed Projects

Completed Projects





Constructed the Prestigious **Kavivarya Suresh Bhat Auditorium** (Project by NMC) inaugurated by President of India

Hon. Shri Ramnath Kovind

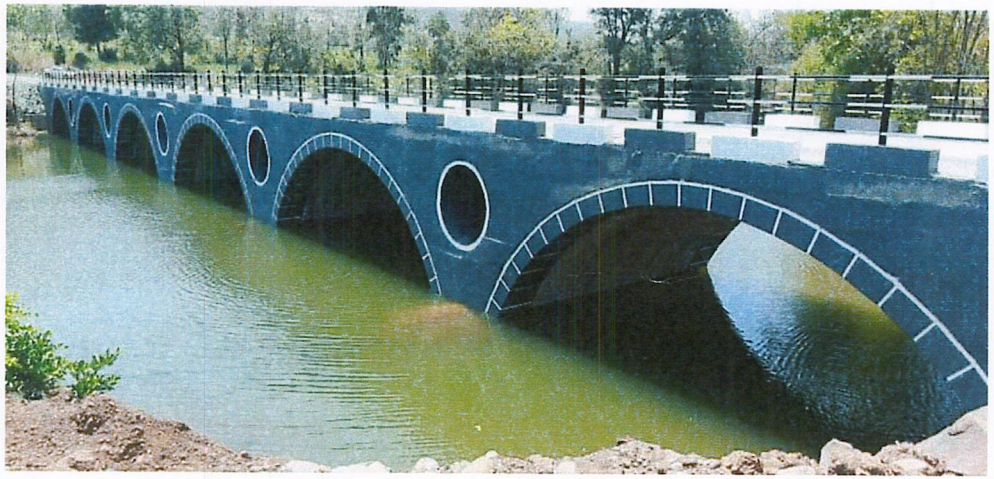
Achievements



Awarded by Nagpur Municipal Corporation at the hands of Hon. Shri Nitinji Gadkari - Union Minister, Road Transport & Highways, for successful completion of Kavivarya Suresh Bhat Auditorium

Paid second Highest Demand (12.79 Cr) for Building Permission of Commercial Tower to ADTP Nagpur Municipal Corporation.

Other Achievements



Constructed 3 bridges using
Flexi Arch technology for the first time in India & completed the project in a brief span of 4 months one of them is nominated for best Precast structure in India by ICI (Indian Concrete Institute) held at Delhi in 2018.

Casted longest PT BEAM in a Commercial /Public building 38m x1.8m x 1.8m.



COVID-19 WORK

Renovated 110-bedded Indira Gandhi Rugnalaya in 1 Month & 36-bedded Isolation Facility in just 7 days for NMC during the first Covid-19 Lockdown in 2020

Prafulved Infra Pvt. Ltd

Our Prestigious Customers

Mr.Umesh Yadav
Indian Cricketer

Mr.Anil Pansare
High Court Judge

Mr.Pradeep Deshmukh
Tribunal Judge, NCLT

Lotus Properties

CDET Explosive

Mr.Ramesh Tolani
Tribunal Judge, Income Tax

Lotus Properties



Orange City Mall Project



CONSTRUCTION

- Quality
- On-Time Completion

SALE

- Fast-Selling
- Reputed Brands

FINANCE

- Revenue Generation
- Payment Schedule

Quality of CONSTRUCTION

Orange City Mall Project

The Orange City Mall is a visionary project which promises to be a gem in Nagpur's future skyline and proposed London Street.

As an ISO 9001:2015 & ISO 14001:2015-certified company with a work ethic rooted in quality and service, we believe our long-standing associations with vendors and suppliers of the highest repute, will continue to aid us in delivering the kind of high-quality, world-class construction required for a prestigious project such as this.



ON-TIME Completion

Orange City Mall Project

Construction Schedule as per the Existing Plan is as follows:

RCC Part Completion Period- 11 Months

Services Completion Period- 5 Months



HOW IS THIS ACHIEVABLE?

- **Our team of In-house** Architects Project Planers & Own Shuttering material simplifies achieving above deadlines
- **Opting for** floor extension as we proposed 18 months for G+8 Building would give us ample time to meet deadlines

Orange City Mall Project

FAST SELLING



As seen here, we sold our last G+18 fully Commercial Tower in a record-breaking span of 15 Days.

For the Orange City Mall Project too, Fast-selling will play an important role, as NMC'S Land Cost Payment would depend on it.

With our far-reaching customer base, extensive network and having already received letters of interest from existing clients; we can guarantee fast-moving sales

Interested Customers

Orange City Mall Project

Sr No	Name Of Customer	Area Required in Sq ft
1.	MR.UMESH YADAV	5000 Sq ft
2.	DASS JEWELLERS	10000 Sq ft
3.	CAPELLO SALON	7000 Sq ft
4.	CENTRAL SWITCHGEARS PVT LTD.	10000 Sq ft
5.	R & Y LOGISTICS	6000 Sq ft
6.	CDET EXPLOSIVE	5000 Sq ft
7.	MR.GAURAV SARDA	16000 Sq ft
8.	SAI INFRASTRUCTURE	7500 Sq ft
9.	SAMRUDHHI INFRA PROJECTS	7500 Sq ft

Letters of Interest

Orange City Mall Project

CENTRAL SWITCHGEARS PVT. LTD.

Office: 8, Tanksale Complex,Opp. NMC Water Works Deptt., Sitabuldi, Nagpur- 440 012
(Office) 0712-2521345, (Mobile) 9975464077
E-mail ID - centralswitchgears777@gmail.com
www.centralswitchgears.com

Business Associates
ABB
MV/LV SWITCHGEAR

To,
Prafulved Infra Private Limited,
Flat No. 501, Plot no.14-A, Shrikrishna Residency,
Dahake Lay-out, Khare Town, Dharampeth, Nagpur-440010

Dear Sir,

We have been your customer right from your first Venture and now became a member of the family of all your customer owing to your good co-ordination and reciprocal relations with all your customers. We are satisfied about your quality of construction and also your dealing with all of us. We deal with the **manufacture of 11KV HT, LT Panels** / we want to enter in the business of **Commercial Commodity.**

It is learnt that you are proposing to venture a Commercial/Multi Shopping Mall at Chhatrapati Nagar Chowk in Jaripatka Nagar Metro Station, Nagpur.

We hereby confirm that we are much interested in purchasing an establishment of about **10000 Sq ft.** in the Mall at above said location upto **8 crores** for which we are ready pay in advance or as per the terms of the Project proposed by you.

Looking forward to hear an early communication from your side.

Thanking You.

Yours faithfully,

R&Y LOGISTICS

AEO
INAAACR9011KOF203

14/10/2021

To,
Prafulved Infra Private Limited,
Flat No. 501, Plot no.14-A, Shrikrishna Residency,
Dahake Lay-out, Khare Town, Dharampeth, Nagpur-440010

Dear Sir,

We have been your customer right from your first Venture and now became a member of the family of all your customer owing to your good co-ordination and reciprocal relations with all your customers. We are satisfied about your quality of construction and also your dealing with all of us. We are dealing in business of logistics.

It is learnt that you are proposing to venture a Commercial/Multi Shopping Mall at Chhatrapati Nagar Chowk in Jaripatka Nagar Metro Station, Nagpur.

We hereby confirm that we are much interested in purchasing an establishment of about 6000 Sq ft. in the Mall at above said location upto 5 crores for which we are ready pay inadvance or as per the terms of the Project proposed by you.

Looking forward to hear an early communication from your side.

Thanking You.

Yours faithfully,
For R & Y LOGISTICS PVT LTD.

HAFEEZ CONTRACTOR MUMBAI 2023.

Letters of Interest

Orange City Mall Project

GAURAV SARDA

Address: 303, The Heritage, Civil Lines, Nagpur - 440001

To,
Prafulved Infra Private Limited,
Flat No. 501, Plot no.14-A, Shrikrishna Residency,
Dahake Lay-out, Khare Town, Dharampeth, Nagpur-440010

Dear Sir,

We have been your customer right from your first Venture and now became a member of the family of all your customer owing to your good co-ordination and reciprocal relations with all your customers. We are satisfied about your quality of construction and also your dealing with all of us. We are dealing in manufacturing of PP bags and Jumbo bags and are selling in India and abroad.

It is learnt that you are proposing to venture a Commercial/Multi Shopping Mall at Chhatrapati Nagar Chowk in Jaripatka Nagar Metro Station, Nagpur.

We hereby confirm that we are much interested in purchasing an establishment of about 1500 Sqm. in the Mall at above said location proposed by you.

Looking forward to hear an early communication from your side.

Thanking You.

Nagpur.

Dated : 14.10.21

Yours faithfully

Gaurav Sarda

DASS™
JEWELLERS

To,
Prafulved Infra Private Limited,
Flat No. 501, Plot no.14-A, Shrikrishna Residency,
Dahake Lay-out, Khare Town, Dharampeth, Nagpur-440010

Dear Sir,

We have been your customer right from your first Venture and now became a member of the family of all your customer owing to your good co-ordination and reciprocal relations with all your customers. We are satisfied about your quality of construction and also your dealing with all of us. We are dealing in jewellery retail. We want to expand our business with an additional store.

It is learnt that you are proposing to venture a Commercial/Multi Shopping Mall at Chhatrapati Nagar Chowk in Jaripatka Nagar Metro Station, Nagpur.

We hereby confirm that we are very much interested in purchasing an establishment of about 10000 Sq.ft. in the Mall at above said location upto 8 crores for which we are ready pay in advance or as per the terms of the Project proposed by you.

Looking forward to hear an early communication from your side.

Thanking You.

Nagpur:

Date: 13th Oct 2021

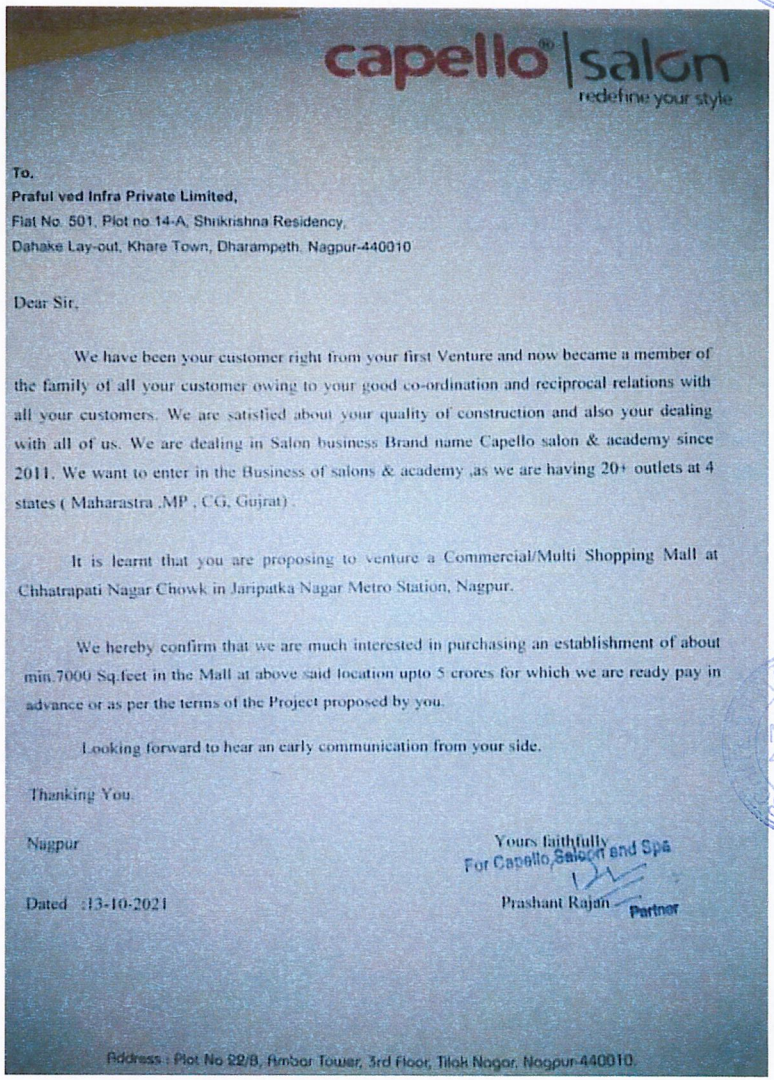
Yours faithfully

DASS JEWELLERS • NAGPUR •

'Impressa Rise', Opp. L.A.D. College, 8, North Ambazari Road, Shivaji Nagar, Nagpur - 440 010 (M.S.) INDIA
T. +91-712-2423614, 2436652 E. dassjewellers@yahoo.com W. www.dassjewellers.in

Letters of Interest

Orange City Mall Project



capello® | salon
redefine your style

To,
Praful ved Infra Private Limited,
Flat No. 501, Plot no.14-A, Shikrishna Residency,
Dahake Lay-out, Khare Town, Dharampeth, Nagpur-440010

Dear Sir,

We have been your customer right from your first Venture and now became a member of the family of all your customer owing to your good co-ordination and reciprocal relations with all your customers. We are satisfied about your quality of construction and also your dealing with all of us. We are dealing in Salon business Brand name Capello salon & academy since 2011. We want to enter in the Business of salons & academy ,as we are having 20+ outlets at 4 states (Maharastra ,MP , CG, Gujrat) .

It is learnt that you are proposing to venture a Commercial/Multi Shopping Mall at Chhatrapati Nagar Chowk in Jaripatka Nagar Metro Station, Nagpur.

We hereby confirm that we are much interested in purchasing an establishment of about min.7000 Sq.feet in the Mall at above said location upto 5 crores for which we are ready pay in advance or as per the terms of the Project proposed by you.

Looking forward to hear an early communication from your side.

Thanking You.

Nagpur

Yours faithfully
For Capello Salon and Spa

Dated :13-10-2021

Prashant Rajan — Partner

Address : Plot No 22/B, Ambar Tower, 3rd Floor, Tilak Nagar, Nagpur-440010.

PRAFULVED INFRA PVT. LTD. NAGPUR

AFEEZ CONTRACTOR MUMBAI 400 023.

REPUTED BRANDS

Orange City Mall Project

The success of any commercial property is hugely dependent on its brand associations, which in turn impacts customer footfall.

This is where a commercial complex's ambience & maintenance play a defining role. Higher visible potential to attract customer footfall is a sure way of attracting valuable brands.

Our experience in commercial projects and in dealing with corporates will enable us to forge the right brand associations for this one-of-its-kind project.



Companies Associated With Us for Commercial Spaces



thyssenkrupp

DASS
JEWELLERS

Domino's Pizza

THE Albert Ellis INSTITUTE

Kawasaki

MAX LIFE INSURANCE

MOTOR HARLEY-DAVIDSON CYCLES

Revenue Generation Table

Sr no	Particulars	Particulars	Amount in Crore
1	Third & Fourth Floor	28,000 Sq. Ft @ 7500/- Per Sq. Ft	21.00 Cr
2	Sixth & Seventh Floor	36,000 Sq. Ft @ 7000/- Per Sq. Ft	25.20Cr
3	Fifth & Eighth Floor	34,000 Sq. Ft @ 9000/- Per Sq. Ft	30.60 Cr
3	First & Second Floor	26,000 Sq. Ft @ 9000/- Per Sq. Ft	23.40 Cr
3	Ground Floor	6500 Sq. Ft @ 15000/- Per Sq. Ft	9.75 Cr
	Total Revenue Generated in Crore		109.95Cr

Orange City Mall Project

Revenue Generation Table

Revenue Generation: ₹109.95 Cr

Project Cost: ₹94.70 Cr

Profit= Revenue Generation -Total Project Cost

Hence, Profit from said Project =109.95Cr - 94.70Cr = ₹15.25 Cr

So, the Profitability of this Project is 11%* (approx.)

Orange City Mall Project

Orange City Mall Project

NMC Payment Schedule

Proposing Two Payment Options:



A. Up-front ₹2Cr & Remaining Amount as per the Tender Clause

i) Upfront 2Cr within 60 days of Appointment Date.
ii) Remaining amount As Per the tender clause.

B. Up-front ₹2Cr & Remaining Amount will be paid Outright ₹2Cr Per Month after Moratorium Period of 3 Months

i) Upfront 2Cr within 60 days of Appointment Date.
ii) Outright 2Cr per Month after Moratorium Period of 3 Months

*Moratorium period will begin after the execution of development agreement

Revenue sharing with NMC in case of enhanced height

- Currently approved height by AAI is 42.83 mts .
- As discussed earlier we are planning to complete the project with existing plan in 18 months so we can increase the floors without hampering the project timeline.
- In such case we are ready to share the 30% of revenue generated by selling the extra floors over the height of 42.83mtr.
- The selling rate will be the current ready reckoner rate at the time of selling.

Orange City Mall Project



Portfolio Presentation | 2021

Prafulved Infra Pvt Ltd

Volume I:

REQUEST FOR PROPOSAL

(RFP) DOCUMENT FOR

DESIGN, BUILD, FINANCE, OPERATE and SALE OF MULTI UTILITY SHOPPING MALL WITH OFFICE SPACES at NMC ORANGE CITY SHOPPING MALL site at NAGPUR

(Next to Jaiprakash Nagar Metro Station)

Project Proponent:

NAGPUR
MUNICIPAL CORPORATION

Issued by:
Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg, Nagpur.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com

July 2021

RFP No:.....

AGREEMENT

महाराष्ट्र शासन
GOVERNMENT OF MAHARASHTRA
ई-सुरक्षित बँक व कोषागार पावती
e-SECURED BANK & TREASURY RECEIPT (e-SBTR)

19453661260040

Bank/Branch: IBKL - 6910596/Nagpur Dharam Peth
Pmt Txn id : 707256877
Pmt DtTime : 09-FEB-2022@18:42:20
ChallanIdNo: 69103332022020952417
District : 4601-NAGPUR

Stationery No: 19453661260040
Print DtTime : 09-FEB-2022 18:46:41
GRAS GRN : MH012893930202122S
Office Name : IGR383-NGP1_HQR SUB REG
GRN Date : 09-Feb-2022@18:42:21

StDuty Schm: 0030046401-75/STAMP DUTY
StDuty Amt : R 5,55,100/- (Rs Five, Five Five, One Zero Zero only)

RgnFee Schm: 0030063301-70/Registration Fees
RgnFee Amt : R 0/- (Rs Zero only)

Article : 5(g-a)(ii)--Development Agreement
Prop Mvblty: Immovable
Consideration: R 55,55,70,000/-
Prop Descr : NMC Orange City,Mall Near,Jaiprakash Nagar,,Metro Station,Khamla Nagpur,Nagpur,Maharashtra,440025
Duty Payer: PAN-AAKCP2972M,Prafulved Infra Private Limited

Other Party: TAN-NGPA02945F,Nagpur Municipal Corporation

IDBI BANK LTD. Dharampeth Nagpur

Bank official1 Name & Signature

Bank official2 Name & Signature

--- --- Space for customer/office use - - - Please write below this line --- ---

e-SBTR IS VALID UPTO SIX MONTHS FROM THE DATE OF PAYMENT.

भारतीय गैर न्यायिक

भारत INDIA

रु. 500 FIVE HUNDRED RUPEES

पाँच सौ रुपये Rs. 500

सत्यमेव जयते

INDIA NON JUDICIAL

NAGPUR TREASURY

महाराष्ट्र MAHARASHTRA ◑ 2021 ◑

BF 407591
28 JAN 2022

Agreement

This Development Agreement mutually agreed and entered into on this 9th day of February, Two Thousand and Twenty-Two at Nagpur Municipal Corporation, Civil Lines, Nagpur.

BETWEEN

Nagpur Municipal Corporation, the urban local body for the city of Nagpur, duly established under and functioning as per the MMC Act, 1949 ("**Act**") through its Municipal Commissioner, having its office at Nagpur Municipal Corporation, Civil Lines, Mahanagar Palika Marg, Nagpur (hereinafter referred to as "**NMC**", which expression shall, unless excluded by or repugnant to the context or meaning thereof, mean and include its administrators, successors and assigns) OF ONE PART;

AND

Prafulved Infra Private Limited a private limited company incorporated under the Companies Act, 1956 and having its registered office at F No 501, Shrikrishna Residency, Dharampeth, Nagpur Maharashtra, 440010 (hereinafter referred to as "**Developer**") which expression shall where context so admits be deemed to include its successor or administrators and permitted assigns or assigns) of the OTHER PART;

NMC and the Developer are hereinafter referred to individually as the "**Party**" and collectively as the "**Parties**".

१) मुद्रांक विक्री नोंद वही अनुक्रमांक 32000 /दिनांक -1 FEB 2022

२) दस्ताचा प्रकार [illegible]

३) दस्त नोंदणी करणार आहेत का ? होय/नाही -1 FEB 2022

४) मिळकतीचे थोडक्यात वर्णन

५) मुद्रांक विकत घेणाऱ्याचे नाव व सही प्रफुल्लवेद इन्फ्रा प्रा. लि. [illegible]

६) हस्ते असल्यास त्याचे नाव पत्ता व सही. ना. कंदिप

७) दुसऱ्या पक्षकाराचे नाव

८) मुद्रांक शुल्क रक्कम 400/-

संजय हरडे	मुद्रांक विक्रेता, ला.क्र. ४/८६ कोड क्र. ४६०१०२४ जिल्हाधिकारी परिसर, त. कार्यालय, नागपूर (शहर)

ज्या कारणासाठी त्यांनी मुद्रांक खरेदी केला त्याची त्याच कारणासाठी मुद्रांक खरेदी केल्यापासून ६ महिन्यात वापरणे बंधनकारक आहे.

WHEREAS;

1. NMC has decided to develop the Orange City Street Project at Nagpur on the stretch of starting from Wardha Road up to Jaitala, Nagpur.

2. Currently NMC proposes to develop as a component of the Orange City Street Project, a Multi Utility Shopping Mall and Office spaces with requisite parking at the NMC ORANGE CITY MALL site at Nagpur (Next to Jaiprakash Nagar Metro Station).

3. Nagpur Municipal Corporation, is desirous that the Developer Execute the work for "DESIGN, BUILD, FINACE, OPERATE and SALE OF MULTI UTILITY SHOPPING MALL WITH OFFICE SPACES at NMC ORAGNE CITY SHOPPING MALL site at NAGPUR" (Next to Jaipraksh Nagar Metro Station).

4. NMC had carried out a competitive bidding process for the selection of a suitable developer to implement the aforesaid Project, and issued a Request for Proposal ("**RFP**") dated July 2021 inviting proposals from the interested developers. Upon evaluation of the proposals received, NMC accepted the proposal of the Successful Bidder and issued Letter of Award ("LOA") No.64/EE/P dated 04/01/2022 to the Successful Bidder and invited it to *interalia* execute this Development Agreement for implementation of the Project in accordance therewith.

5. The Developer had submitted its technical and financial bid and after due technical evaluation, NMC has accepted the Financial Bid of the Developer and the Developer has a quoted lump-sum financial offer to be shared with NMC of **Rs 55,55,70,000 /-** from the sales of various components of the aforesaid Project.

6. The said bid of the Developer has been accepted by NMC vide its Standing Committee Resolution No ठ.क्र.205/ वि.क्र. 181 dated 22/12/2021 and subsequent order of the Municipal Commissioner for executing this Agreement & proposal has been approved by General Body of NMC on dated 25/01/2022 vide resolution no 226 dated 25/01/2022.

7. NMC and the Developer are executing this Development Agreement to award to the Developer the development and sales rights including right and obligation with regards to designing, planning, financing, construction, operations and maintenance, marketing and sales of the various components of the Multi Utility Shopping Mall with Office Spaces and requisite parking of the Project and the Developer has agreed to enter into this Development Agreement for execution of the Project on DBFOS basis subject to and on the terms, conditions and covenants set forth hereinafter

Now this Agreement witness as follows.

1) In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of Agreement.
2) In consideration of the payments to be made by the Developer to NMC as hereinafter mentioned, the Developer hereby covenants with NMC to all aspects with the provisions of the contract (Volume I to IV).
3) The Developer shall have to complete the Project within the stipulated time frame and maintaining the quality parameters at all times from the date of the signing of this Agreement and as stipulated in all the contract documents mentioned below.
4) The following documents shall be deemed to form and be ready construed as part of this agreement viz.
    - Volume I -Request for Proposal (RFP)
    - Volume II- Development Agreement
    - Volume III- Design Proposal.
    - Volume IV- Drawings
    - All corrigenda/addenda/Pre Bid Minutes/CSD etc issued from time to time
    - Technical Presentation made by the Developer to the NMC Tender Committee dated 20/10/2021.
    - Bid Signatory undertaking
    - NMC House Resolution accepting the Bid of the Developer
    - Letter of Acceptance
    - Bank Guarantee Letter
    - Financial Bid Opening document
    - Plot Details
    - Advocate Resolution for Sale of Property.

Any other documents listed in the Contract Date as forming part of the contract.
IN WITNESS THEREOF THE, PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED SEALED AND DELIVERED

For and on behalf of NMC by:

9.2.22

(Pradeep R Khawle)

(Chief Engineer PWD, NMC Nagpur)

Chief Engineer
Nagpur Municipal Corporation

For and on behalf of Developer by:

9.2.22

(Praful N Deshmukh)

(Director)

PRAFULVED INFRA PVT. LTD. NAGPUR

Authorized by the Resolution passed by the Governing Body of the Nagpur Municipal Corporation on 25th day of JAN 2022.

THE COMMON SEAL OF DEVELOPER has been affixed pursuant to the resolution passed by the Board of Directors of the Developer at its meeting held on the 5th day of February 2021 hereunto affixed in the presence of both, Directors, who has signed these presents in token thereof.

In the presence of following:

Witnesses: 1)

Naresh Borkar
EE (Project) NMC

2)

AUTHORISED SIGNATORY

भारतीय गैर न्यायिक

एक सौ रुपये

Rs. 100

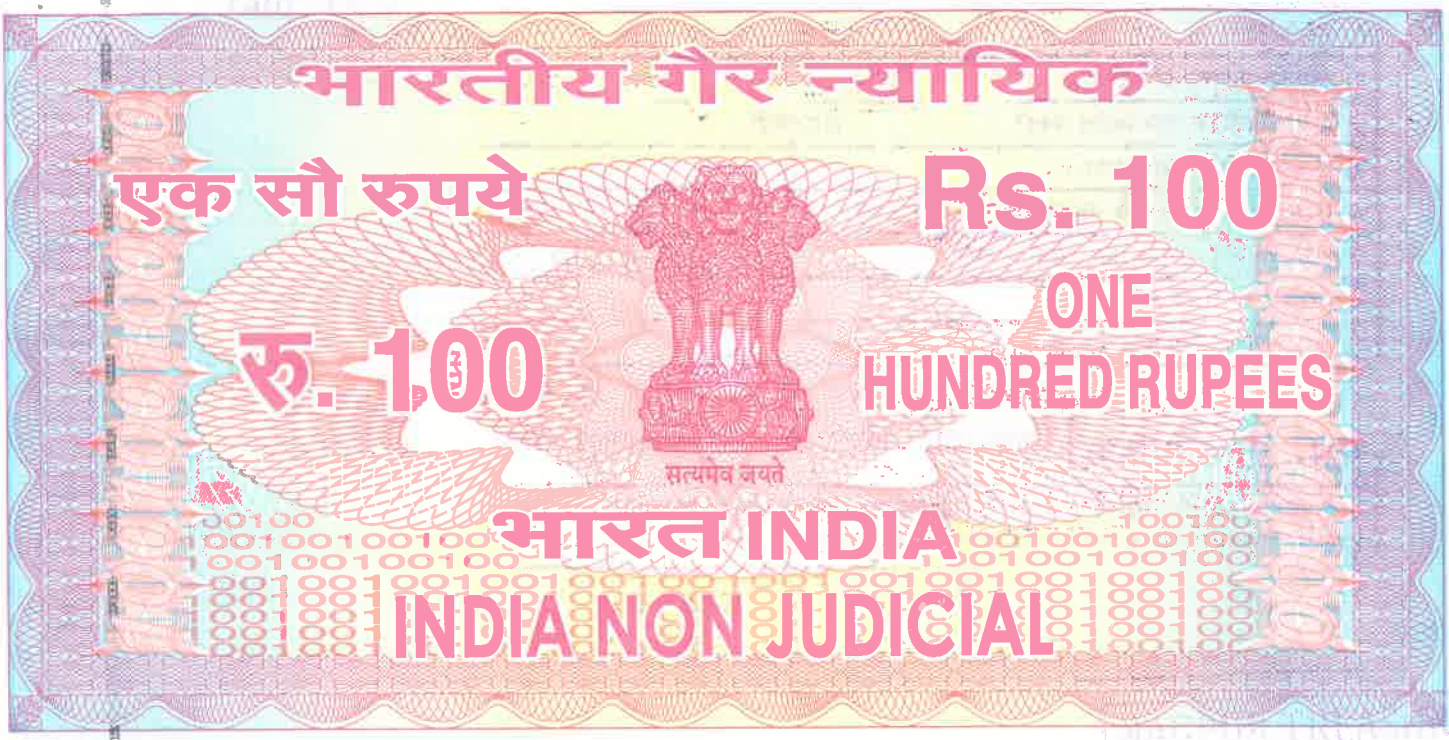
रु. 100

ONE HUNDRED RUPEES

सत्यमेव जयते

भारत INDIA

INDIA NON JUDICIAL



महाराष्ट्र MAHARASHTRA ◐ 2020 ◐ YF 367377

NOTARIAL REG.
ENTRY NO. 15577.
DATE 04/10/2021

Power of Attorney for signing of Application

Know all men by these presents, We, Prafulved Infra Private Limited, F no 501,Shrikrishna Residency, Dharampeth, Nagpur, Maharashtra440010 do hereby irrevocably constitute, nominate, appoint and authorize Mr. Praful Narendra Deshmukh, son of Narendra Nilkhantrao Deshmukh and presently residing at 501,Shrikrishna Residency, Dharampeth, Nagpur,Maharashtra 440010,who is holding the position of Director, as our true and lawful attorney (hereinafter referred to as the "**Attorney**") to do in our name and on our behalf, all such acts,deeds and things as are necessary or required in connection with or incidental to submission of our bid for the Project – Development of NMC Orange City Shopping Mall, being developed by Nagpur Municipal Corporation ("**NMC**") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders" and other conferences and providing information / responses to NMC, representing us in all matters before NMC, signing and execution of all contracts including the Development agreement and undertakings consequent to acceptance of our bid, and generally dealing with NMC in all matters in connection with or relating to or arising out of our bid for the said Project and/or upon award thereof to us and/or till the entering into of the Development agreement with NMC.

NOTARY
Suresh Kashiv Meshram
Nagpur
Maharashtra India
Regn. No.
15840
My Term Expires
On 05-12-2024
GOVT. OF INDIA

१) मुद्रांक विक्री नोंद वही अनु.क्रमांक 16557 /दिनांक 1 OCT 2021

२) दस्ताचा प्रकार LU

३) दस्त नोंदणी करणार आहेत काय? होय/नाही

४) मिळकतीचे थोडक्यात वर्णन

५) मुद्रांक विकत घेणाऱ्याचे नाव व सही

६) ज्यास असल्यास त्यांचे नाव, पत्ता व सही

७) दुसऱ्या पक्षकाराचे नाव

८) मुद्रांक शुल्क रक्कम 100

एम. ए. जोगीया

मुद्रांक विक्रेता. ला.क्र ९२/९२ कोड क्र ४६१९०४
जिल्हाधिकारी परिसर, ता. कार्यालय नागपूर (शहर)

ज्या कारणासाठी ज्यांनी मुद्रांक खरेदी केला त्यांनी त्याच कारणासाठी मुद्रांक खरेदी केल्यापासून ६ महिन्यात वापरणे बंधनकारक आहे.

Rani



AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, Prafulved Infra Private Limited, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON 4th DAY OF October, 2021

For

Prafulved Infra Private Limited
Director
1. Praful Narendra Deshmukh
501,Shrikrishna Residency, Dharampeth,
Nagpur,Maharashtra440010
2. Rahul R Deshmukh
115 Priti Apartment Laxmi Nagar Nagpur.

Witnesses:

1. _____

(Nillesh U Pandit)

2. _____

(Ravi B Birha)

Accepted Notarised

NOTARY Suresh S. Meshram Nagpur (M.S.) India Regn. No 15840 GOVT. OF INDIA

NOTARY Suresh Sadashiv Meshram Nagpur (M.S.) INDIA Regn. No. 15840 GOVT. OF INDIA

ATTESTED
4.10.20
Suresh Sadashiv Meshram
Advocate & Notary
Rani Durgawati Square, NIT
Complex, Flat No.A-5, 1st Floor
Nagpur-17. Maharashtra

NOTARIAL NOTARIAL NOTARIAL NOTARIAL NOTARIAL

PRAFULVED INFRA PVT. LTD.
ENGINEERS | BUILDERS | CONTRACTORS
CIN NO.:-U45200MH2019PTC319415

Certified copy of the Resolution passed at the meeting of the directors of the board on 5th February 2022 at the registered office of the company at 501, Shri Krishna Residency, Khare town, Dharampeth, Nagpur 440010

RESOLVED THAT Mr. Praful Narendra Deshmukh, Director of Prafulved Infra Private Limited, be and is hereby authorized to sign and execute with any party, person or relevant authority as may be required, all such contracts/ agreements/any other documents on behalf of the Company, in relation to the Orange City Mall, Jaiprakash nagar, Nagpur for the performance of the business of the Company as may be necessary or requisite on behalf of the Company, and any modifications agreed to therein and to do all such things as may be required in connection therewith and that such contracts and / or agreements shall be binding on the Company."

For Prafulved Infra Private Limited

(Director) **(Director)**

PRAFULVED INFRA PVT. LTD. NAGPUR

14 - A, Shri Krishna Residency, Khare Town, Dharampeth, Nagpur-440010
Mob.: 9604078999 | e-mail: prafuldeshmukh9@gmail.com

नागपूर महानगरपालीका, नागपूर

प्रकल्प

कार्यालयीन टिप्पणी

आरोग्य विभाग द्वारे मौजा भामटी येथील Plinth Level चे वरील उर्वरीत बांधकाम खाजगी उद्योजकामार्फत पायाभूत तत्वावर पूर्ण करून (म.न.पा.चा अधाप पर्यंत झालेल्या खर्चाच्या प्रतिपूर्तीसह) सेवाकरीता निविदा बोलाविण्याच्या व त्याअनुषंगीचा करारनामा इ. करण्याचे अधिकार मा. आयुक्त यांना प्रदान करणे बाबतच्या विषयास मा.स्थायीसमितच्या दि.२५.३.२०२१ च्या सभेमध्ये ठराव क्र.७५ अन्वये मंजूरी प्रदान करण्यात आली होती.

या पूर्वीच्या विकासाकरीता DHMO तत्वावर म.न.पा.तर्फे E-Tender No२०२१ NMC/N ७०४८८६२ दि.१५.७.२०२१ ला ऑनलाईन निविदा प्रकाशित करण्यात आली, परंतु कोणत्याही निविदाकाराने निविदा सादर न केल्यामुळे या प्रकल्पाची द्वितीय निविदा काढण्याचा निर्णय म.न.पा.तर्फे घेण्यात आला, त्यानुसार द्वितीय निविदा E-Tender No२०२१ NMC/N ७०४८८६२ दि.२८.५.२०२१ ला प्रकाशित करण्यात आली, त्यामध्ये एकूण ४ निविदा प्राप्त झाल्या, या कामाची द्वितीय निविदा दि.२१.१०.२०२१ ला उघडण्यात आली असता प्रफुल नेद इन्फ्रा.प्रा.लि. यांची रु.५५५५७०००००/- ची सहत्तम निविदा प्राप्त झाली.

अशा सहत्तम प्राप्त झालेल्या निविदाकार प्रफुल नेद इन्फ्रा.प्रा.लि. यांची देकार राशी रु.५५५५७०००००/- मंजूरीस्तव व निविदा मान्यतेकरीता म.न.पा.स्थायी समितीपुढे दि.१.११.२०२१ ला प्रस्ताव सादर करण्यात आला, सदर प्रस्तावास स्थायी समिती ठराव क्र.२०५ दि.२२.१२.२०२१ अन्वये मान्यता प्रदान करण्यात आली, सदर मान्यते अन्वये प्रफुल नेद इन्फ्रा.प्रा.लि. यांना कामाचे LoA दि.४.१.२०२२ ला देण्यात आले, निविदाकार प्रफुल नेद इन्फ्रा.प्रा.लि. यांनी दि.२७.१.२०२२ ला Performance Security रु.२०००००००/-(दोन कोटी) BG च्या स्वरुपात म.न.पा.कडे जमा केलेली आहे. (BG No.००४५४१८२२०००००४ Dt.२७.१.२०२२, Indian Bank, Civil Lines Nagpur)

B.G. प्राप्त झाल्यानंतर विकासकायोबत विकास करारनामा करावयाचा आहे, करीता या करारनाम्यावर (Development Agreement) सर आयुक्त यांचेवतीने स्वाक्षरी करण्यास सक्षम अधिकाऱ्यास प्राधिकृत करण्याच्या आदेशार्थ प्रस्तुत.

2/2/22.

PTO

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अधि. अभियंता

मुख्य अभियंता

मा. आयुक्त यांचे वतीने करारनाम्यावर स्वाक्षरी करण्यास कार्यकारी अभियंता (प्रकल्प) यांना प्राधिकृत करण्याचे आदेशास्तव सादर.

3.2.22

मा. आयुक्त

Let CE to sign on behalf of Commr, NMC and take review and update commr. on fortnightly.

8/2/22

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HOUSE RESOLUTION

कार्यालय, नागपूर महानगरपालिका, नागपूर
(सचिवालय)

स्वच्छ भारत
एक कदम स्वच्छता की ओर

स्थायी समितीच्या दिनांक 22.12.2021 रोजी भरलेल्या सभेच्या अहवालातून घेतलेला उतारा

ठ.क्र.२०५/वि.क्र.१८१ :- ऑरेंज सिटी स्ट्रिट प्रकल्पाअंतर्गत वर्धा रोड (हॉटेल रेडीसन ब्ल्यू) जवळील जयप्रकाश नगर मेट्रो स्टेशनलगत भुखंड क्रं. १ वर आधुनिक

(प्रकल्प विभाग) शॉपीग ऑरेंज सिटी मॉल (मट्रोमॉल) चे प्लींथ लेव्हल वरील वांधकाम खाजगी उदयोजकामार्फत (DBFOS) तत्वावर पुर्ण करण्याच्या (म.न.पा. चा अदयाप पर्यत झालेल्या खर्चाच्या प्रतिपुर्तीसह) कामास कमीत कमी रु. ४५ कोटी निम्नतम देकार (Offset Value) च्या निवीदा मागविल्या असता प्राप्त निविदेपैकी महत्तम निविदाकार मे. प्रफुलवेद इन्फ्रा प्रायव्हेट लिमीटेड यांची महत्तम दराची रु. ५५,५५,७०,०००/- ची निविदा प्राप्त झाली आहे. करीता महत्तम निविदाकार मे. प्रफुलवेद इन्फ्रा प्रायव्हेट लिमीटेड यांची रु. ५५,५५,७०,०००/- ची निविदा मंजुरीचा प्रश्न समितीने विचारात घेऊन यास एकमताने मंजुरी प्रदान केली.

सत्य प्रतिलिपी

सहाय्यक अधिक्षक
समिती विभाग, म.न.पा. नागपूर.

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कार्यालय, नागपूर महानगरपालिका, नागपूर

(सचिवालय)

नागपूर महानगरपालिकेच्या गुरुवार दिनांक २५/०३/२०२१ रोजी भरलेल्या स्थगित सर्वसाधारण सभेच्या कार्यवृत्तातून घेतलेला उतारा

ठराव क्र.७६/वि.क्र.४२ :- (प्रकल्प विभाग) ऑरेंज सिटी स्ट्रिट प्रकल्पाअंतर्गत वर्धा रोड (हॉटेल रेडीसन ब्ल्यु) जवळील जयप्रकाश नगर मेट्रो स्टेशनलगत भुखंड क्र. 1 वर आधुनिक शॉपींग मेट्रो मॉलचे बांधकाम महा मेट्रो रेल्वे कॉ. लि. यांचेमार्फत अग्रीम राशी जमा तत्वावर, सामंजस्य करार करून करण्यास म.न.पा. सभागृहाचे ठराव क्र. 290, दिनांक 29/09/2018 अन्वये मंजूरी प्राप्त आहे. तसेच याबाबत स्थायी समिती ठराव क्र. 529, दिनांक 02/01/2019 अन्वये महा मेट्रो रेल्वे कॉ. लि. सोबत करण्यात आलेल्या सामंजस्य करार (MOU) चे प्रारूपास तथा रू. 11.00 कोटी अग्रीम राशी महा मेट्रो रेल्वे कॉ लि. यांना भुगतान करण्यास मंजूरी प्राप्त आहे.

म.न.पा. सभागृहामध्ये ठराव क्र. 290, दिनांक 29/09/2018 अन्वये मा. आयुक्त यांना महा मेट्रो रेल्वे कॉ. लि. सोबत सामंजस्य करार करण्यास्तव प्रधिकृत केले असल्याने त्याअनुषंगाने 20/12/2018 रोजी करारनामा करण्यात आला. तसेच प्रस्तावित मेट्रो मॉलचे वांधकाम हाती घेण्यास त्यांना रू. 11.00 कोटी रक्कम दिनांक 10/01/2019 ला देण्यात आली. त्यानुसार मेट्रो मॉलचे बांधकाम महा मेट्रोद्वारे सुरू करण्यात आले असून सद्यःस्थितीत काम प्रगतीपथावर आहे.

दरम्यानच्या काळात महामेट्रो द्वारे काम संत गतीने करण्यात येत असल्याने म.न.पा. ठराव क्र. 480/दि. 13/1/2019 नुसार खालील प्रमाणे सभागृहाने मंजूरी प्रदान केलेली होती.

1) मेट्रो मॉलं बांधकामाकरीता महा मेट्रो रेल्वे कॉ. लि. सोबत दिनांक 20/12/2018 रोजी झालेल्यां सामंजस्य कराराचे आधिन त्यांच्यामार्फत करावयाचे मेट्रो मॉलचे बांधकाम फक्त Plinth Level पर्यंत सिमीत ठेवण्यास मंजूरी प्रदान करण्याचा तथा याबाबतचा सामंजस्य करार सुधारीत करण्याचे अधिकार मा. आयुक्त यांना प्रदान करणे.

2) मेट्रो मॉलचे Plinth Level वरील कामाचे वर्ष 2019–20 च्या SSR वर आधारीत दरावर रू. 53,66,66,069/– चे प्राकलनास प्रशासकीय मान्यता देण्याचा तथा या कामाचा रीतसर निविदा मागवून हे काम म.न.पा. द्वारे करण्यास एकमताने मंजुरी प्रदान केलेली आहे.

उपरोक्त ठरावानुसार मेट्रो मॉलचे Plinth Level वरील Superstructure च्या वांधकामाकरीता निविदा बोलविण्यात आल्यात मात्र कोव्हिड–19 मुळे महसुली उत्पनात झालेली घट लक्षात घेता. निधी अभावी कार्यादेश निर्गमीत करण्यात आले नाहीत.

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उपरोक्त स्थिती लक्षात घेता मेट्रो मॉलचे बांधकाम पूर्णत्वास नेण्याचे दृष्टीने म.न.पा. ठराव क्र. 490/दि. 13/01/19 चे अ. क्र. 2 वरील प्रस्तावाऐवजी बदल करून खालीलप्रमाणे प्रस्तावास मान्यता देण्याचा प्रश्न विचारात घेणे.

- मेट्रो मॉलचे Plinth Level चे वरील उर्वरीत बांधकाम खाजगी उद्योजकामार्फत भागीदारी तत्वावर पुर्ण करून (म.न.पा. चा अद्याप पर्यत झालेल्या खर्चाच्या प्रतिपुर्तीसह) घेण्याकरीता निविदा बोलविण्याच्या व त्यासंबंधीचा करारनामा इ. करण्याचे अधिकार मा. आयुक्त यांना प्रदान करणे.

निविदा बोलविल्यानंतर केलेल्या कार्यवाहीचा अहवाल सभागृह समक्ष ठेवण्यात येईल.

उपरोक्त प्रश्न सभागृहाने विचारात घेवून त्यास मंजूर मंजूरच्या आवाजाने एकमताने मान्यता प्रदान केली.

सत्य प्रतिलीपी

अधिक्षक
समिती विभाग

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ठरावाचे प्रारुप

ऑरेन्ज सिटी स्ट्रिट मॉल इमारतच्या Plinth Level चे वरील उर्वरीत बांधकाम खाजगी उद्योजकामार्फत भागीदारी तत्वावर पूर्ण करून (म.न.पा.चा अद्याप पर्यत झालेल्या खर्चाच्या प्रतिपुर्तीसह) घेण्याकरीता निविदा बोलविण्याच्या व त्यासंबधीचा करारनामा इ. करण्याचे अधिकार मा. आयुक्त यांना प्रदान करणे बाबतच्या विषयास मा.सभागृहाच्या दि.२५.३.२०२१ च्या सभेमध्ये ठराव क्र.७६ अन्वये मंजूरी प्रदान करण्यात आली.

या ठरावामध्ये मंजूर केल्याप्रमाणे निविदा बोलविल्यानंतर केलेल्या कार्यवाहीचा अहवाल सभागृह समक्ष ठेवण्यात येत आहे.

सदर कामाच्या कार्यान्वयनाकरीता प्रस्तावास म.न.पा. सभागृहातर्फे मान्यता प्रदान करण्यात आली आहे. त्यानुसार निविदा बोलावण्यास केलेली कार्यवाहीचा अहवाल सभागृहाकडे सादर करण्याचे नमुद आहे. त्यानुसार सदर माहिती ठेवण्यात येत आहे.

प्रकल्पाचे नांव :- The Orange City Multi Utility Shopping Mall and Office spaces with requisite parking at the NMC Orange City Mall site at Nagpur.(Next to Jaiprakash Nagar Metro Station) भुखंड क्र.१

भुखंड तपशिल :- भुखंड क्र.१

भुखंडाचे क्षेत्रफळ ३३०८ चौ.मी.

उपलब्ध Built up area-१०६२९.६३,

उपलब्ध FSI-३.२१३

या भुखंडाच्या विकासाकीता DBFOS तत्वावर निविदा पत्रे या प्रकल्पाचे सल्लागार आर्किटेक्ट हफीज कॉन्ट्रॅक्टर यांच्या मार्फत सादर करण्यात आले होते. सदर निविदा प्रपत्रे म.न.पा. चे अधिवक्ता ॲडव्होकेट श्री. कप्तान यांचेकडे दि.१५.६.२०२१ ला पाठविण्यात आले व त्याची लिगल वेटींग करुन दि.६.७.२०२१ ला महानगरपालिकेस प्राप्त झाले. त्यानुसार म.न.पा. तर्फे E-Tender No:-२०२१_NMCN_७०४८६२_१ दि.१५.७.२०२१ निविदा ऑनलाईन प्रकाशित करण्यात आल्या. या प्रकल्पाची पूर्व निविदा बैठक ३०.७.२०२१ नियोजीत होती. तसेच याची बिड सबमिशन डेट २८/०८/२०२१ होती.

प्रथम निविदा वेळी पूर्व निविदा बैठकीत कोणतेही निविदाकार उपस्थित झाले नाही तसेच प्रथम निविदेदरम्यान कोणत्याही निविदा काराने निविदा सादर केली नव्हती. उक्त परीस्थितीत या प्रकल्पाची द्वितीय निविदा काढण्याचा निर्णय म.न.पा. तर्फे घेण्यात आला. त्यानुसार द्वितीय निविदा क्र. E-Tender No:-२०२१_NMCH_७०४८६२_२ दि.२८.५.२०२१ प्रमाणे प्रकाशित करण्यात आल्या. त्यानुसार पूर्व निविदा बैठक दि. ०८/०९/२०२१ ला आयोजित करण्यात आली होती. या निविदेची, निविदा स्विकृती दि.२७.९.२०२१ ही होती. निविदा अटीनुसार कमीत कमी रु.४५ कोटी निम्नतम देकाराच्या निविदा मागविण्यात आल्या. त्यामध्ये खालीलप्रमाणे एकूण ४ निविदा प्राप्त झाल्या.

१) विदर्भ इन्फाटेक प्रा.ली.

२) प्रफुलवेद इन्फा प्रा.ली.

३) सुफलाम इन्फ्रास्ट्रक्चर ली.

४) संदेश इन्फ्रास्ट्रक्चर प्रा.ली.

वरील प्राप्त निविदाची या कामाच्या PMC द्वारे तांत्रिक पडताळणी केली असता संदेश इन्फ्रास्ट्रक्चर प्रा.ली. यांची निविदा तांत्रिक पात्रता पूर्ण करीत नसल्याने Disqualified करण्यात आली व पूढे या कामाच्या वित्तीय निविदा दि.२१.१०.२०२१ ला उघडण्यात आल्या. त्याप्रमाणे प्राप्त महत्तम निविदाचे विवरण पुढील प्रमाणे आहे.

अ.क्र.	निविदाकाराचे नांव	निविदा देकार	शेरा
१	सुफलाम इन्फ्रास्ट्रक्चर ली.	रु.४७ ०००००००/-	H३
२	विदर्भ इन्फाटेक प्रा.ली.	रु.४७३०००००००/-	H२
३	प्रफुलवेद इन्फा प्रा.ली.	रु.५५५५७००००/-	H१

उक्त निविदेने प्राप्त महत्तम निविदाकाराचे नांव :- प्रफुलवेद इन्फा प्रा.ली.

प्राप्त निविदा राशी रु.५५,५५,७०,०००/-

अशा उच्च प्राप्त झालेल्या निविदाकार प्रफुलवेद इन्फा प्रा.ली. यांची देकार राशी रु.५५,५५,७०,०००/- मंजूरीस्तव व निविदा मान्यता करीता म. न.पा. स्थायी समीतीपूढे दि.१.११.२०२१ ला प्रस्ताव सादर करण्यात आला. सदर प्रस्तावात (विषयाला) स्थायी समीती ठराव क्र.२०५ दि.२२.१२.२०२१ अन्वये मान्यता प्रदान करण्यात आली आहे. सदर मान्यते अन्वये प्रफुलवेद इन्फा प्रा.ली. यांना कामाचे LOA दि.४.१.२०२२ ला देण्यात आले आहे.

उक्त प्रमाणे निविदेबाबत विवेचन मा. सभागृहाच्या माहितीस्तव सादर करण्यात येत आहे.

कार्यकारी अभियंता (प्रकल्प)
मनपा नागपूर

टिप :- सविस्तर टिप्पणी व माहिती नस्तीस उपलब्ध आहे.

LETTER OF AWARD

Nagpur Municipal Corporation, Nagpur
(Office of Executive Engineer (Project)
NMC Building, New Administrative Building, Civil Line, Nagpur 440001
☎ 0712-2542831 🖷 0712 -2561584
E-mail eeprojectnmc@gmail.com

No. 64/EE/P **Date:-** 4 / 1 /2022

LETTER OF AWARD

To,

PrafulVed Infra Ltd
F. No. 501, Shrikrishna Residency,
Dharampeth, Nagpur-440010.

Subject: - Letter of Award (LoA) for Selection as Developer for the Construction of Multi Utility Shopping Mall and Office spaces with requisite parking at the NMC ORANGE CITY MALL site at Nagpur (Next to Jaiprakash Nagar Metro Station) on Design-Build-Finance-Operate and Sale (DBFOS) basis mode.

Dear Sir,

1. This is with reference to the bidding-process vide NIT No.2021_NMCN_704862_2 dated 25/08/2021 conducted by Nagpur Municipal Corporation, for the Selection of Developer for the Construction of Multi Utility Shopping Mall and Office spaces with requisite parking at the NMC ORANGE CITY MALL site at Nagpur (Next to Jaiprakash Nagar Metro Station) on Design-Build-Finance-Operate and Sale (DBFOS) basis mode.
2. Your company i.e. M/s PrafulVed Infra Ltd. hereinafter referred to as PrafulVed, had submitted its technical and financial proposal in response to the above mentioned bidding on the bid submission date i.e.08/10/2021 and was found technically qualified and hence your financial proposal was opened on 21/11/2021.

   Based on the evaluation of your financial proposal and in accordance with the bidding criteria of the RFP document and subsequent clarifications sought by Nagpur Municipal Corporation, we are pleased to inform you that PrafulVed has emerged as the H-1bidder for the Project and therefore is the Selected Bidder for the Project.
3. **The quoted Lump-sum Financial offer to be shared by PrafulVed with NMC from Sale Proceeds from the various components of the Project is Rs. 55,55,70,000/-** Accordingly the proposal was submitted to the Standing Committee, Nagpur Municipal Corporation on 01/11/2021 and the Standing Committee, Nagpur Municipal Corporation has accorded approval to your Proposal vide its Resolution 205 dated 22/12/2021 and accepted and accorded consent / approval to the proposal of PrafulVed to act as the Developer for the Construction of Multi Utility Shopping Mall and Office spaces with requisite parking at the NMC ORANGE

CITY MALL site at Nagpur (Next to Jaiprakash Nagar Metro Station) on Design-Build-Finance-Operate and Sale (DBFOS) basis mode for the quoted Lump-sum Financial offer to be shared by PrafulVed with NMC of Rs. 55,55,70,000/- and has selected PrafulVed as the Developer for the Construction of Multi Utility Shopping Mall and Office spaces withrequisite parking at the NMC ORANGE CITY MALL site at Nagpur (Next to Jaiprakash Nagar Metro Station) in accordance with the terms and conditions of the RFP document and its subsequent corrigenda.

4. In accordance with the approval of the Standing Committee, the Hon'ble Municipal Commissioner, Nagpur Municipal Corporation vide its order Dated 30/12/2021 has given the approval for the implementation of your Proposal.

5. The Selected Bidder is also required to fulfill the terms and conditions as required in the RFP document and corrigenda issued by Nagpur Municipal Corporation at the earliest.

   The Selected Bidder and the Nagpur Municipal Corporation shall also execute a Development Agreement, the draft of which was issued along with the RFP document. The terms and conditions to be fulfilled immediately on issue of this Letter of Award are:

a) Sign and return a duplicate copy of LOA to the NMC within 7 days,

b) Submit the Performance Security 5% of the construction cost i.e. Rs.2Cr. within 14 days of LOA, (in the form of B.G) as per the RFP data sheet and RFP clause no 3.2.8.

c) Execute the Development Agreement in accordance with the RFP document, subsequent corrigenda and sought clarifications, within 21 days of issue of this LOA,

d) Disburse the Upfront Premium to NMC by paying minimum Rs. 2 Crores within 60 days of signing of the Development Agreement.

   The balance Upfront Premium shall be paid by way of postdated cheques within 6 months from the initial 60 days i.e. entire Upfront Payment shall be paid to NMC within 240 days from signing of the Development Agreement,

e) Submit Rs 5,55,100/- denomination Stamp Paper/ by way of Franking for execution of the Development Agreement.

f) The Bid Security of Rs 10, 00,000/- (Rupees Ten Lacs only) shall be retained till you have provided the Performance Security in accordance with the Clause 3.2.8 of the RFP& as per this Letter of Award and as a pre-condition to the execution of the Development Agreement.

g) All the terms and conditions of the RFP Document, the subsequent corrigenda and the clarifications sought shall form part of the Development Agreement to be entered intosubsequently.

6. The selected bidder and Nagpur Municipal Corporation shall finalize and execute the Development Agreement on the fulfillment of the above mentioned clauses i.e.5 "a" to"g".

In token of unconditional acceptance of the above mentioned terms and conditions and this LoA, we request you to give an accepted duplicate copy of this Letter of Award within seven (7)days of its issue.

Executive Engineer (Project)
Nagpur Municipal Corporation

Accepted by



(Authorized Signatory)
(M/s Prafulved Infra Ltd.)

Copy Submitted to:-

1) The Hon'ble Municipal Commissioner, Nagpur for information please.

2) The Chief Engineer, NMC, Nagpur for info0rmation please.

BANK GUARANTEE

PRAFULVED INFRA PVT. LTD.
ENGINEERS | BUILDERS | CONTRACTORS
CIN NO.:-U45200MH2019PTC319415

Ref. No- PVI/GOV/LSM/004

Date 27/01/2022

To,

The commissioner,

Nagpur Municipal Corporation,

Nagpur.

Subject – Submission of Bank Guarantee for the Project construction of Multi Utility shopping mall & Office Spaces with Requisite Parking at the NMC orange City Mall Site at Nagpur on Design Build Finance Operate and Sale (DBFOS) Basis Mode.

Reference-: Letter of award no 64/EE/P dated 04/01/2022 from your office.

Respected sir,

With reference to above mentioned letter we are submitting the performance security 5% of the construction cost i.e. 2cr in the form of bank guarantee issued by INDIAN Bank Shivaji Nagar branch valid for 2 Years i.e. 24/01/2024 (Original copy of Bank Guarantee Attached)

It is requested that as we have furnished bank guarantee now we can move forward by executing development agreement in accordance with RFP document, subsequent corrigendum & clarification given by NMC, so that we can prepare to start the work.

Thanking You.

27/01/22

P A to Commissioner
Nagpur Municipal Corporation

Your's Faithfully

PRAFULVED INFRA PVT. LTD. NAGPUR

Prafulved Infra Pvt Ltd.

O/C copy

Copy to –

1) Executive Engineer (Project)
NMC

14 - A, Shri Krishna Residency, Khare Town, Dharampeth, Nagpur-440010
Mob.: 9604078999 | e-mail: prafuldeshmukh9@gmail.com

NAGPUR MUNICIPAL CORPORATION

OFFICE OF THE EXECUTIVE ENGINEER (PROJECT)
MAHANAGARPALIKA MARG, CIVIL LINES NAGPUR – 440 001
☎ 0712 – 2542831, ☎(Fax) 2561584

No : B.G. Confirmation / 68/EE(P)/2021-22 Date : 27 / 01 /2022

To,
The Branch Manager,
Indian Bank,
Zonal Office,
Civil Lines, Nagpur.
Email – nagpur@indianbank.co.in

Subject :- Confirmation of Bank Guarantee.

The following B.G. which was issued on behalf of **M/s. Praful Ved Infra Private Ltd. , Nagpur** is submitted to this office.

Bank Guarantees No.	Date of Issue	Validity Period	Rs.
00454IG220000004	27.01.2022	24.01.2024	2,00,00,000/-

Kindly confirm the same & send confirmation letter to this office at the earliest.

Executive Engineer (Projects)
NMC, Nagpur.

Copy forwarded to M/s. Praful Ved Infra Private Ltd., Nagpur information & necessary action.

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR MUMBAI

इंडियन बैंक
Indian Bank

PHONE: 91-0712-2534380, 2521056
NAGPUR BRANCH Per.:2527737
Cement Road,
Shivaji Nagar, **Fax:** (0712)2527737
Nagpur-440010
INDIA
Email: nagpur@indianbank.co.in
Visit Us: www.indian-bank.com

Date: 27/01/2022

To,
THE COMMISSIONER
NAGPUR MUNICIPAL CORPORATION, CIVIL LINES
MAHANAGAR PALIKA MARG
NAGPUR

Dear Sir,

Reg : Confirmation of BANK GUARANTEE NO. 00454IG220000004 dated 27/01/2022

This covering letter is issued to be annexed to the issuance of letter of Bank Guarantee No. **00454IG220000004 dated 27/01/2022** for amount of Rs. 2,00,00,000/-(Rupees Two Croreonly) & valid till 24/01/2024 withexecuted on non-judicial stamp papers of Rs.500 issued by this office under the joint signatures of Shri Pradeep M, Branch Manager and Mr Yogesh Yewale, Asst Manager. This guarantee is issued on behalf of our Customer, M/S Praful Ved Infra Private Limited, Nagpur, Dist- Nagpur- 440037

Yours faithfully,

इंडियन बैंक NAGPUR INDIAN BANK

Branch Manager

CC. Zonal Office
Indian Bank,
Civil Lines,
Nagpur

PRAFULVED INFRA PVT. LTD. NAGPUR

HAFEEZ CO MUMBAI

भारतीय गैर न्यायिक

भारत INDIA

रु. 500 FIVE HUNDRED RUPEES

पाँच सौ रुपये Rs. 500

सत्यमेव जयते

INDIA NON JUDICIAL

NAGPUR TREASURY
BF 908026
21 JAN 2022
Stamp Head Clerk/Sr. Clk

महाराष्ट्र MAHARASHTRA ◑ 2021 ◑

BG No. 00454IG220000004

To,
The Commissioner,
Nagpur Municipal CorporationCivil Lines,
Mahanagar Palika Marg,Nagpur.

WHEREAS:

A. Nagpur Municipal Corporation ("**NMC**") as per the Letter of Award dt. 4-01-2022 whereby NMC has agreed to grant **Prafulved Infra Private Limited** (the "**Developer**"), the Concession for implementing the project for planning and development of Multi Utility Shopping Complex at Jaiprakash Nagar ("**Project**") on design, build, finance, operate and sales ("**DBFOS**") basis and and will enter into a Development Agreement ("**Agreement**"), subject to and in accordance with the provisions of the Development Agreement.

B. The Agreement requires the Developer to furnish a Performance Security to NMC in a sum of Rs. **TWO CRORE** (the "**Bank guarantee Amount**") as security for due and faithful performance of its obligations, under and in accordance with the Agreement, during for the Construction Work (as defined in the Agreement).

C. We Indian bank, a body corporate constituted under the banking companies (Acquisition and Transfer of undertaking) Act V of 1970, having its corporate office at 254-260, Avvai Shanmugam salal, Royapettah, Chennai-600014 Tamilnadu and one of its branch office at 199, Cement road, Shivaji Nagar Nagpur 440010 (hereinafter called the bank which expression shall include its successors and assign.)

PRAFULVED INFRA PVT. LTD. NAGPUR

कृते इंडियन बैंक
For INDIAN BANK
सहा./वरि./मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Branch
Sr. No. 35323

INDIAN BANK NAGPUR

कृते इंडियन बैंक
For INDIAN BANK
सहा./वरि./मुख्य प्रबंधक
Asst./Sr./Chief Manager
नागपूर शाखा/Nagpur Branch
Sr. No. 32614

ARCHITECT HAFEEZ CONTRACTOR MUMBAI

24 JAN 2022

NOW. THEREFORE. the Bank hereby, unconditionally and irrevocably. bank guarantees andaffirms as follows:

1. The Bank hereby unconditionally and irrevocably bank guarantees the due and faithful performance of the Developer's obligations during the Construction Works, under and in accordance with the Agreement, and agrees and undertakes to pay to NMC,upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Developer, such sum or sums up to an aggregate sum of the Bank guarantee Amount as NMC shall claim. without NMC being required to prove or to show grounds or reasons for its demand and/orfor the sum specified therein.

2. A letter from the authorized representative of NMC that the Developer has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that NMC shall be the solejudge as to whether the Developer is in default in due and faithful performance of its obligations during the Construction Work under the Agreement and its decision that the Developer is in default shall be final, and binding on the Bank, notwithstanding any differences between NMC and the Developer, or any dispute between them pending before any court, tribunal, arbitrators or any other authorityor body, or by the discharge of the Developer for any reason whatsoever.

3. In order to give effect to this Bank guarantee, NMC shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Developer and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of theBank under this Bank guarantee.

4. It shall not be necessary, and the Bank hereby waives any necessity, for NMC to proceed against the Developer before presenting to the Bank its written demand under thisBank guarantee.

5. NMC shall have the liberty. without affecting in any manner the liability of the Bank under this Bank guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfillment and/ or performance of all or any of the obligations of the Developer contained in the Agreement or to postpone for any time, and from time to time, any of the rightsand powers exercisable by NMC against the Developer, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to NMC, and the Bank shall not be released from its liability and obligation under these presents by any exercise by NMC of the liberty with reference to the matters aforesaid or by reason of time being given to the Developer or any other forbearance, indulgence, act or omissionon the part of NMC or of any other matter or thing whatsoever which under any law relating to sureties and guarantors Would but for this provision have the effect of releasing the Bank from its liability and obligation under this Bank guarantee and theBank hereby waives all of its rights under any such law.

6. Notwithstanding anything contained in any law for the tine being in force or banking practice this guarantee shall not be assignable or transferable by the beneficiary:-
   - Our liability under this bank Guarantee shall not exceed Two Crore
   - This bank guarantee shall be valid up to **24-01-2024**
   - We are liable to pay up the guarantee amount only and only if we receive from you a written claim or demand no later than 12 month from the said expiry date i.e. **24-01-2024**. Unless a written clean of demand under this guarantee is received by us on or before 12 month from the date of expiry of guarantee. I.e. **24-01-2024** all your rights under this bank guarantee shall be extinguished and we shall have been from all liabilities hereunder, irrespective of return of original guarantee.

कृते इंडियन बैंक
For INDIAN BANK
सहा./वरि./मुख्य प्रबंधक
Asst./Sr./Chief Manager

कृते इंडियन बैंक
For INDIAN BANK
सहा./व[illegible]
Asst./Sr.[illegible]

7. This Bank guarantee is in addition to and not in substitution or derogation of any other bank guarantee or security now or which may hereafter be held by NMC in respect of or relating to the Agreement or for the fulfillment, compliance and/or performance of all or any of the obligations of the Developer under the Agreement

8. The Bank undertakes not to revoke this Bank guarantee during its currency, except withthe previous express consent of NMC in writing, and declares and warrants that it has the power to issue this Bank guarantee and the undersigned has full powers to do soon behalf of the Bank.

9. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch, which shall be deemed to havebeen duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelopecontaining the notice was posted and a certificate signed by an officer of NMC thatthe envelope duly acknowledged was so posted shall be conclusive.

10. This Bank guarantee shall come into force with immediate effect and shall remain in force and effect for a period specified in Paragraph 8 above.

Signed and sealed this 27 day of January 2022 at Nagpur.

For INDIAN BANK

Asst./Sr./Chief Manager
Nagpur Branch/Nagpur Branch

Sr. No. 35323

For INDIAN BANK

Asst./Sr./Chief Manager
नागपुर/शाखा/Nagpur Branch

Sr. No. 326/1

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by

(Signature)

Designation- CHIEF MANAGER / BRANCH MANAGER

Code Number- 35323

Address-199, Cement road,
Shivaji Nagar Nagpur 440010

BR. Code :- 00454

PRAFULVED

HAFEEZ CONTRACTOR

FINANCIAL BID

PRAFULVED INFRA PVT. LTD.
ENGINEERS | BUILDERS | CONTRACTORS
CIN NO.:-U45200MH2019PTC319415

Annexure C1 - Financial Offer Format:

Dated: 06/10/2021

To
The Municipal Commissioner
Nagpur Municipal Corporation,
Mahanagar Palika Marg, Civil Lines,
Nagpur.
Sub: Financial Bid for Selection as Developer for the NMC Orange City Shopping Mall Project.

Dear Sir,

1. With reference to your RFP dated July 2021, we, having examined the Bidding Documents and understood their contents, hereby submit our Financial Quote for the aforesaid Project.

2. The Financial Quote is unconditional and unqualified.

3. We hereby offer the Maximum Lump-sum Financial Offer of Rs **555570000** (Rs Fifty Five Crore Fifty Five Lakh Seventy Thousand Only) over and above the minimum of Rs 45 crores (Rupees Forty Five crores) (i.e. Rs 45 crores plus the quoted amount) in respect of the Maximum Lump-sum Financial Offer to be paid to NMC from the Sale Proceeds of various components of the Project.

4. We agree to keep this offer valid for 180 (one hundred and eighty) days from the Bid Due Date.

5. We agree and undertake to abide by all the terms and conditions of the RfP.

In witness thereof, we submit this Financial Quote under and in accordance with the terms of the RfP.

Yours faithfully,

PRAFULVED INFRA PVT. LTD.

(Praful Ved Infra Pvt Ltd)

Date:06/10/2021

Place:Nagpur

PRAFULVED INFRA PVT. LTD. NAGPUR

14 - A, Shri krishna Residency, Khare Town, Dharampeth, Nagpur-440010
Mob.: 9604078999 | e-mail: prafuldeshmukh9@gmail.com

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T-44

ePROCUREMENT System Government of Maharashtra
Created By: Naresh Borkar
Created Date/Time: 21-Oct-2021 02:13 PM

Tender Title: Develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur on DBFOS (Design, Built, Finance, Operate and Sale) mode.
Tender ID: 2021_NMCN_704862_2

Tender Inviting Authority: Executive Engineer (Project)

Name of Work: Develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near J

Contract No:

SCHEDULE OF WORK / ITEM(S)

Sl.No	Description of Work / Item(s)	No.of Qty	Units	Estimated Rate	VIDARBHA INFOTECH PVT. LTD.(GSTN-27AABCV2557M1ZX)		Sufalam Infra Projects Ltd(GSTN-27AAQCS2011N1Z2)		PRAFULVED INFRA PRIVATE LIMITED(GSTN-NA)		L1 Amount	L1 Vendor
					Rate	Amount	Rate	Amount	Rate	Amount		
1.00	With reference to your RFP document, I/we, having examined the Bidding Documents and understood their contents, hereby submit my/our BID for the aforesaid Project. The BID is unconditional and unqualified. I/We hereby submit our BID and offer BID Price Rs. ..... (Rs. in word .....) for undertaking the aforesaid Project in accordance with the Bidding Documents and the Agreement. (Offer for entire project shall be quoted in Figure in Column No. 6, 13 & 53)	1.00	Total Project		473000000.00	473000000.00	470000000.00	470000000.00	555570000.00	555570000.00	470000000.00	Sufalam Infra Projects Ltd
	Total in Figures					473000000.00		470000000.00		555570000.00		

H2 H3 H1

Lowest Amount Quoted BY: Sufalam Infra Projects Ltd(470000000.00)

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 400 023.

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BOQ Summary Details

Tender Title: Develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur on DBFOS (Design, Built, Finance, Operate and Sale) mode.

Sheet Name	Sl.No	Bidder Name	Amount	Bid Rank
BQ1	1	Sufalam Infra Projects Ltd	470000000.00	L1
	2	VIDARBHA INFOTECH PVT. LTD.	473000000.00	L2
	3	PRAFULVED INFRA PRIVATE LIMITED	555570000.00	L3

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCH. HAFEEZ CONTRACTOR MUMBAI 400 023.

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PRAFULVED INFRA PVT. LTD.
ENGINEERS | BUILDERS | CONTRACTORS
CIN NO.:-U45200MH2019PTC319415

Date: 08/10/2021

To
Executive Engineer (Projects) ,
Civil lines Mahanagar Palika Marg,
Nagpur.

Sub: Technical & Financial Bid for Selection as Developer for the NMC Orange City Shopping Mall Project.

Dear Sir,

With reference to your RFP dated July 2021, we, having examined the Bidding Documentsand understood their contents, hereby submit our Technical documents and Financial Quote in hard copy for the aforesaid Project.

PRAFULVED INFRA PVT. LTD.

Yours faithfully,

(Praful Ved Infra Pvt Ltd)

Date:08/10/2021

Place: Nagpur

PRAFULVED INFRA PVT. LTD. NAGPUR

O/L copy.

Received By
8/10/2021
Office of the
Executive Engineer (Project)
N.M.C. Nagpur.

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 400 023.

PRE BID QUIERIES & REPLIES

&

CORRIGENDUM

NAGPUR MUNICIPAL CORPORATION

E-Tender Notice (2nd Call)

Name of Department :- Project Department

Name of Head of Department :- Executive Engineer (Project)

The NMC is intending to develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur under the Orange City Street Project on DBFOS (Design, Built, Finance, Operate & Sale) mode.

NMC is hereby calling for proposals from competent entity to be appointed as the Developers for this prestigious project.

Bidding Process Timelines:

	The detailed RFP Document and other details are available on-line on the government website www.mahatenders.gov.in.	
1.	RFP Sale	25/08/2021 to 24/09/2021 till 5.00 p.m
2.	Last Date of submission of Pre-bid queries	08/09/2021 till 3.00 p.m.
3.	Pre- Bid Meeting	08/09/2021 at 4.00 p.m.
4.	Authority's response of queries raised before or during pre-bid meeting, release of Addendum / Corrigendum, if any.	13/09/2021 at 5.00 p.m.
5.	RFP Submission End Date	24/09/2021 till 5.00 p.m.
6.	Hard copy submission Date	27/09/2021 till 5.00 p.m.
7.	Financial Proposal opening	Shall be intimated to the technically shortlisted bidders.
8.	Bid Security through online mode (Refundable)	Rs 20.00 Lakh
9.	RFP Document Cost through online mode (Non-Refundable)	Rs 20,000/-

NMC reserves the right to alter, modify any clause of the Bidding Documents including the Contract Agreement and also to annul the bidding process without assigning any reason whatsoever.

Advt. No. 142/PRS
dt 24/8/2021

Executive Engineer (Project)
Nagpur Municipal Corporation,
Nagpur

Advt No. 142/PR

11 X 8 = 88

नागपुर

दि 25/8/2021

NAGPUR MUNICIPAL CORPORATION
E-Tender Notice (2nd Call)

Name of Department :- Project Department
Name of Head of Department :- Executive Engineer (Project)
The NMC is intending to develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur under the Orange City Street Project on DBFOS (Design, Built, Finance, Operate& Sale) mode.

NMC is hereby calling for proposals from competent entity to be appointed as the Developers for this prestigious project.

Bidding Process Timelines:

	The detailed RFP Document and other details are available on-line on the government website www.mahatenders.gov.in.	
1.	RFP Sale	25/08/2021 to 24/09/2021 till 5.00 p.m.
2.	Last Date of submission of Pre-bid queries	05/09/2021 till 3.00 p.m.
3.	Pre- Bid Meeting	08/09/2021 at 4.00 p.m.
4.	Authority's response of queries raised before or during pre-bid meeting, release of Addendum / Corrigendum, if any.	13/09/2021 at 5.00 p.m.
5.	RFP Submission End Date	24/09/2021 till 5.00 p.m.
6.	Hard copy submission Date	27/09/2021 till 5.00 p.m.
7.	Financial Proposal opening	Shall be intimated to the technically shortlisted bidders
8.	Bid Security through online mode (Refundable)	Rs 20.00 Lakh
9.	RFP Document Cost through online mode (Non-Refundable)	Rs20,000/-

NMC reserves the right to alter, modify any clause of the Bidding Documents including the Contract Agreement and also to annul the bidding process without assigning any reason whatsoever.

Advt No : 142/PR
dt : 24/08/2021

Executive Engineer (Project)
Nagpur Municipal Corporation, Nagpur

समाप्त

NAGPUR MUNICIPAL CORPORATION
E-Tender Notice (2nd Call)

Name of Department :- Project Department
Name of Head of Department :- Executive Engineer (Project)
The NMC is intending to develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur under the Orange City Street Project on DBFOS (Design, Built, Finance, Operate& Sale) mode.

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NMC reserves the right to alter, modify any clause of the Bidding Documents including the Contract Agreement and also to annul the bidding process without assigning any reason whatsoever.

Advt No : 142/PR
dt : 24/08/2021

Executive Engineer (Project)
Nagpur Municipal Corporation, Nagpur

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 400 023.

टाईम्स ऑफ इंडीया

टाईम्स ऑफ इंडीया

assigning any reason
Advt No : 142/PR
dt : 24/08/2021

NAGPUR MUNICIPAL CORPORATION

E-Tender Notice (2nd Call)

Name of Department :- Project Department
Name of Head of Department :- Executive Engineer (Project)

The NMC is intending to develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur under the Orange City Street Project on DBFOS (Design, Built, Finance, Operate& Sale) mode.

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1.	RFP Sale	25/08/2021 to 24/09/2021 till 5.00 p.m
2.	Last Date of submission of Pre-bid queries	08/09/2021 till 3.00 p.m.
3.	Pre- Bid Meeting	08/09/2021 at 4.00 p.m.
4.	Authority's response of queries raised before or during pre-bid meeting, release of Addendum / Corrigendum, if any.	13/09/2021 at 5.00 p.m.
5.	RFP Submission End Date	24/09/2021 till 5.00 p.m.
6.	Hard copy submission Date	27/09/2021 till 5.00 p.m.
7.	Financial Proposal opening	Shall be intimated to the technically shortlisted bidders.
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Advt No : 142/PR
dt : 24/08/2021

Executive Engineer (Project)
Nagpur Municipal Corporation, Nagpur

TOI

दि - 26/8/2021

Advt No- 95/PR

नवभारत दि 12/7/2021

NAGPUR MUNICIPAL CORPORATION

E-Tender Notice

Name of Deptt :- Project Department Name of Head of Deptt :- Executive Engineer (Project)

The NMC is intending to develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur under the Orange City Street Project on DBFOS (Design, Built, Finance, Operate & Sale) mode.

NMC is hereby calling for proposals from competent entity to be appointed as the Developers for this prestigious project.

Bidding Process Timelines:

The detailed RFP Document and other details are available on-line on the government website www.mahatenders.gov.in.

1	RFP Sale	12/07/2021 to 11/08/2021 till 5.00 p.m.
2	Last Date of submission of Pre-bid queries	27/07/2021 till 3.00 p.m.
3	Pre- Bid Meeting	27/07/2021 at 4.00 p.m.
4	Authority's response of queries raised before or during pre-bid meeting, release of Addendum / Corrigendum, if any.	02/08/2021 at 5.00 p.m.
5	RFP Submission End Date	11/08/2021 at 5.00 p.m.
6	Hard copy submission Date	13/08/2021 till 5.00 p.m.
7	Financial Proposal opening	Shall be intimated to the technically shortlisted bidders.
8	Bid Security through online mode (Refundable)	Rs20.00 Lakh
9	RFP Document Cost through online mode (Non-Refundable)	Rs20,000/-

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Advt No : 95/PR dt : 09/07/2021

Municipal Commissioner
Nagpur Municipal Corporation

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38

नवभारत

NAGPUR MUNICIPAL CORPORATION

E-Tender Notice

Name of Deptt :- Project Department Name of Head of Deptt :- Executive Engineer (Project)

The NMC is intending to develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur under the Orange City Street Project on DBFOS (Design, Built, Finance, Operate & Sale) mode.

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Advt No : 95/PR dt : 09/07/2021

Municipal Commissioner
Nagpur Municipal Corporation

टाईम्स ऑफ इंडिया

NAGPUR MUNICIPAL CORPORATION

E-Tender Notice

Name of Deptt :- Project Department Name of Head of Deptt :- Executive Engineer (Project)

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Advt No : 95/PR dt : 09/07/2021

Municipal Commissioner
Nagpur Municipal Corporation

TT 12/7/21

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 400 023.

सहा. जनसंपर्क अधिकारी
(प्रसिध्दी सहाय्यक)
महानगर पालीका, नागपूर.

Maharashtra Tenders

eProcurement System Government of Maharashtra

Tender Details

Date : 15-Jul-2021 08:04 PM

Print

Basic Details

Organisation Chain	Nagpur Municipal Corporation Nagpur||Water Works		
Tender Reference Number	1-2021/Project		
Tender ID	2021_NMCN_704862_1		
Tender Type	Open Tender	Form of contract	EOI
Tender Category	Works	No. of Covers	2
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No
Payment Mode	Online	Is Multi Currency Allowed For BOQ	No
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No

Payment Instruments

Online Bankers	S.No	Bank Name
	1	SBI Bank

Cover Details, No. Of Covers - 2

Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.rar	Technical Documents
2	Finance	.xls	BOQ

Tender Fee Details, [Total Fee in ₹ * - 20,000]

Tender Fee in ₹	20,000		
Fee Payable To	Nil	Fee Payable At	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	20,00,000	EMD through BG/ST or EMD Exemption Allowed	No
EMD Fee Type	fixed	EMD Percentage	NA
EMD Payable To	Nil	EMD Payable At	Nil

Click to view modification history

Work /Item(s)

Title	Develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur on DBFOS (Design, Built, Finance, Operate and Sale) mode.				
Work Description	Develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur on DBFOS (Design, Built, Finance, Operate and Sale) mode.				
Pre Qualification Details	Please refer Tender documents.				
Independent External Monitor/Remarks	NA				
Show Tender Value in Public Domain	Yes				
Tender Value in ₹	0.00	Product Category	Civil Works - Buildings	Sub category	NA
Contract Type	Tender	Bid Validity(Days)	120	Period Of Work (Days)	545
Location	Near Jaiprakash Nagar Metro Station, Nagpur	Pincode	440015	Pre Bid Meeting Place	Office of Chief Engineer, NMC, Nagpur

Pre Bid Meeting Address	Office of Chief Engineer, NMC, Civil Lines, Nagpur	**Pre Bid Meeting Date**	30-Jul-2021 04:00 PM	**Bid Opening Place**	Office of the Executive Engineer (Project), NMC
Should Allow NDA Tender	No	**Allow Preferential Bidder**	No		

Critical Dates

Publish Date	16-Jul-2021 10:00 AM	**Bid Opening Date**	20-Aug-2021 05:00 PM
Document Download / Sale Start Date	16-Jul-2021 10:00 AM	**Document Download / Sale End Date**	17-Aug-2021 05:00 PM
Clarification Start Date	NA	**Clarification End Date**	NA
Bid Submission Start Date	16-Jul-2021 10:00 AM	**Bid Submission End Date**	17-Aug-2021 05:00 PM

Tender Documents

NIT Document

S.No	Document Name	Description	Document Size (in KB)
1	Tendernotice_1.pdf	NIT	72.88

Work Item Documents

S.No	Document Type	Document Name	Description	Document Size (in KB)
1	Tender Documents	RFPVOLUMEI.pdf	RFP	985.29
2	Additional Documents	VOLUMEII.pdf	Volume-II (Development Agreement)	962.95
3	Additional Documents	VOLUMEIII.pdf	Volume-III (Technical Specification)	4630.48
4	Additional Documents	Drawings.pdf	Drawings	33311.33
5	Additional Documents	comsancdrawings.pdf	Sanctioned Drawings.	6016.09
6	BOQ	BOQ_1219621.xls	BOQ	267.00

Bid Openers List

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	borkarnv14@gmail.com	Naresh Borkar	NARESH VASANTRAO BORKAR
2.	mtalewar.nag@gmail.com	Manoj Talewar	MANOJ HARIBHAU TALEWAR
3.	rajeshmeshram707@yahoo.co.in	Rajesh Meshram	RAJESH NANAJI MESHRAM

Tender Properties

Auto Tendering Process allowed	No	**Show Technical bid status**	Yes
Show Finance bid status	Yes	**Show Bids Details**	Yes
BoQ Comparative Chart model	Normal	BoQ Compartive chart decimal places	2
BoQ Comparative Chart Rank Type	L	Form Based BoQ	No

Tender Inviting Authority

Name	Executive Engineer (Project), NMC, Nagpur
Address	Office of the Executive Engineer (Project), NMC, Nagpur

Tender Creator Details

Created By	Naresh Borkar
Designation	Executive Engineer
Created Date	15-Jul-2021 07:23 PM

NAGPUR MUNICIPAL CORPORATION

Mahanagarpalika Marg, Civil Lines, Nagpur – 440 001
Ph. 0712-2542831, Email Id: eeprojectnmc@gmail.com Fax No. – 0712 - 2561584
(OFFICE OF THE EXECUTIVE ENGINEER (PROJECT)

CORRIGENDUM

Corrigendum to Advt. No. 142/PR, Dt. 24/08/2021

Following changes in the aforesaid E-Tender Notice published in News Papers are to be incorporated. Details of this tender is available on-line on the government website www.mahatenders.gov.in.

	Last Date of submission of Pre-bid queries	09/09/2021 till 3.00 p.m.
3.	Pre-Bid Meeting	09/09/2021 at 4.00 p.m.
4.	Place of Pre-Bid Meeting	Office of the Chief Engineer, NMC, Civil Lines, Nagpur
5.	Authority's response of queries raised before or during pre-bid meeting, release of Addendum / Corrigendum, if any.	14/09/2021 at 5.00 p.m.

Other contents of the tender advertisement shall remain unchanged.

Executive Engineer (Project)
Nagpur Municipal Corporation,
Nagpur

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 400 023.

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NAGPUR MUNICIPAL CORPORATION

Mahanagarpalika Marg, Civil Lines, Nagpur – 440 001
Ph. 0712-2542831, Email Id: eeprojectnmc@gmail.com Fax No. – 0712 - 2561584
(OFFICE OF THE EXECUTIVE ENGINEER (PROJECT)

CORRIGENDUM

Corrigendum to Advt. No. 95/PR, Dt. 09/07/2021

Following changes in the aforesaid E-Tender Notice published in News Papers are to be incorporated. Details of this tender is available on-line on the government website www.mahatenders.gov.in.

1.	RFP Sale	15/07/2021 to 17/08/2021 till 5.00 p.m.
2.	Last Date of Submission of Pre-bid queries	30/07/2021 till 3.00 p.m.
3.	Pre-Bid Meeting	30/07/2021 at 4.00 p.m.
4.	Place of Pre-Bid Meeting	Office of the Chief Engineer, NMC, Civil Lines, Nagpur
5.	Authority's response of queries raised before or during pre-bid meeting, release of Addendum / Corrigendum, if any.	05/08/2021 at 5.00 p.m.
6.	RFP Submission End Date	17/08/2021 till 5.00 p.m.
7.	Hard copy submission Date	20/08/2021 till 5.00 p.m.

Other contents of the tender advertisement shall remain unchanged.

Executive Engineer (Project)
Nagpur Municipal Corporation,
Nagpur

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 40/2023.

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Maharashtra Tenders

ePrecurement System Government of Maharashtra

Published Corrigendum Details

Date : 23-Sep-2021 06:51 PM

Print

Organisation Chain :	Nagpur Municipal Corporation Nagpur||Water Works
Tender ID :	2021_NMCN_704862_2
Tender Ref No :	1-2021/Project
Tender Title :	Develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur on DBFOS (Design, Built, Finance, Operate and Sale) mode.
Corrigendum Type :	Date

Corrigendum:2

Corrigendum Title	Corrigendum Description	Published Date	Document Name	Doc Size(in KB)
Date Corrigendum	Date Corrigendum	23-Sep-2021 06:51 PM	EXTMETR.pdf	113.0

Critical Dates

Publish Date	26-Aug-2021 06:30 PM	**Bid Opening Date**	08-Oct-2021 05:00 PM
Document Download/Sale Start Date	26-Aug-2021 06:30 PM	**Document Download/Sale End Date**	06-Oct-2021 05:00 PM
Clarification Start Date	NA	**Clarification End Date**	NA
Bid Submission Start Date	26-Aug-2021 06:30 PM	**Bid Submission End Date**	06-Oct-2021 05:00 PM
Pre Bid Meeting Date	09-Sep-2021 04:00 PM		

Corrigendum:1

Corrigendum Title	Corrigendum Description	Published Date	Document Name	Doc Size(in KB)
Date Change Corrigendum	Pre-Bid Meeting Date Change	03-Sep-2021 02:41 PM	CORRIGENDUM.pdf	788.17

Critical Dates

Publish Date	26-Aug-2021 06:30 PM	**Bid Opening Date**	27-Sep-2021 05:00 PM
Document Download/Sale Start Date	26-Aug-2021 06:30 PM	**Document Download/Sale End Date**	24-Sep-2021 05:00 PM
Clarification Start Date	NA	**Clarification End Date**	NA
Bid Submission Start Date	26-Aug-2021 06:30 PM	**Bid Submission End Date**	24-Sep-2021 05:00 PM
Pre Bid Meeting Date	09-Sep-2021 04:00 PM		

Details Before Corrigendum

Critical Dates

Publish Date	26-Aug-2021 06:30 PM	**Bid Opening Date**	27-Sep-2021 05:00 PM
Document Download/Sale Start Date	26-Aug-2021 06:30 PM	**Document Download/Sale End Date**	24-Sep-2021 05:00 PM
Clarification Start Date	NA	**Clarification End Date**	NA
Bid Submission Start Date	26-Aug-2021 06:30 PM	**Bid Submission End Date**	24-Sep-2021 05:00 PM
Pre Bid Meeting Date	08-Sep-2021 04:00 PM		

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT & FEES CONTRACTOR MUMBAI 400 023.

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eProcurement System Government of Maharashtra

Maharashtra Tenders

Published Corrigendum Details

Date : 24-Sep-2021 04:36 PM

Print

Organisation Chain :	Nagpur Municipal Corporation Nagpur||Water Works
Tender ID :	2021_NMCN_704862_2
Tender Ref No :	1-2021/Project
Tender Title :	Develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur on DBFOS (Design, Built, Finance, Operate and Sale) mode.
Corrigendum Type :	Fee

Corrigendum:1

Corrigendum Title	Corrigendum Description	Published Date	Document Name	Doc Size(in KB)
EMD Fee Corrigendum	EMD Fee Corrigendum on CSD as per Corrigendum No. 7	24-Sep-2021 04:36 PM	CSDFMETRO.pdf	695.03

Tender Fee Details, [Total Fee - 20000]

Tender Fee in ₹	20000		
Fee Payable To	Nil	Fee Payable At	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	1000000	EMD through BG/ST or EMD Exemption Allowed	No
EMD Fee Type	fixed	EMD Percentage	NA
EMD Payable To	Nil	EMD Payable At	Nil

Details Before Corrigendum

Tender Fee Details, [Total Fee - 20000]

Tender Fee in ₹	20000		
Fee Payable To	Nil	Fee Payable At	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	2000000	EMD through BG/ST or EMD Exemption Allowed	No
EMD Fee Type	fixed	EMD Percentage	NA
EMD Payable To	Nil	EMD Payable At	Nil

RAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 400 023.

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With regard to the Request for Proposal for:

"Design, Build, Finance, Operate and Sale of Multi Utility Shopping Mall with Office Spaces at
NMC ORANGE CITY SHOPPING MALL site at NAGPUR (Next to Jaiprakash Nagar Metro Station)

Date of Pre-Bid Meeting: 9th September 2021 at 4.00-6.00 p.m.

Venue: Office of the Hon'ble Chief Engineer, 5th Floor, New Admin. Building, NMC, Civil Lines Nagpur.

List of Participants:

1. Chief Engineer, NMC
2. Superintending Engineer, NMC
3. Executive Engineer, NMC.
4. Junior Engineer, NMC
5. Representatives of Architect Hafeez Contractor- PMC
6. Representatives of prospective bidders.





S. N.	Clause/ Section/Article	Tender Description	Bidder Request for Clarification/Relaxation	NMC Response to Queries
A.S. Kulkarni				
1.	Page 9	Indicative project facility	In the definition of Indicative project facility, any other permissible commercial activity which may include restaurants, hotels , hospitals etc should be added	Kindly refer Corrigendum 1
2.	Page 12, Clause 3.1.3	The ownership of the project land shall vest with NMC at all times	It is clear that the developer will not in any case have ownership rights over the project land at any given period of time but the buyer will have right towards undivided share of the land and this would be incorporated in the DOD or any other ownership document that would be registered by the developer and NMC in the name of the buyer, please clarify	Kindly refer Corrigendum 11
3.	Page 14, Clause 3.1.3	Setting up of rooftop restaurant or some other facilities	The rooftop restaurant is allowed in this RFP, NMC should mention about clearances including Fire NOC upfront. Any facility/ rooftop restaurant so created	Fire NOC is already obtained for the Project except for rooftop restaurant. In case of any additions to the Project necessary NOC intimation and compliance with

			would be registered by executing a deed of apartment in the name of the developer or any person of his choice. Please clarify	Fire Department and ADPT-NMC would have to be obtained by the Developer. NMC shall have exclusive ownership over the terrace and roof top restaurant. The Developer can operate / sub-let/appoint operator for the rooftop Restaurant for a period of 10 years and the revenue earned during this 10 year period shall be the exclusive right of the developer. After the period of 10 years, the developer shall hand over the asset to NMC. Kindly refer Corrigendum 10.
4	Page 16	Additional development revenue sharing	No additional revenue from additional development should be claimed by NMC and it should be limited to premium as quoted by the developer.	The present planning has been done by NMC for an AAI approved/restricted height of 349.91 M and plot ASML is 307.08 M. The successful bidder shall have the liberty

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR

				to plan within this approved/restricted AAI height. Any planning undertaken by the Developer shall necessarily adhere to the prevailing laws and guidelines. Any rearrangement/planning within the property that is within the ambit of prevailing legal framework shall be permitted. But any rearrangement that violates the prevailing laws shall not be permitted Any additional revenue that can be generated by the successful bidder through any enhanced height above 349.91 mtrs shall be submitted to the Strategic Committee of NMC. On approval of the Revenue Model/Planning of the Developer, the appropriate mechanism for





				sharing with NMC shall be implemented and the same shall be covered through a Supplementary Agreement to the Development Agreement.
5	Page 16, Clause 9	18 months	36 months	Kindly refer Corrigendum 2.
6.	RFP Page 47 , Clause 6.1.1	Upfront premium of Rs.5 crores	The requirement for payment of Upfront premium of Rupees 5 Crores should be altered wherein Rupees one crore is paid within sixty days and the balance amount is paid by way of four post dated cheques of Rs 1 crore each to be deposited after successive intervals of sixty days each from the date of first payment	Kindly refer Corrigendum 16
7.	RFP Page 47, Clause 6.1.1	100% of lump-sum amount payable to NMC shall be payable by the developer on or prior to completion of 80% sale proceeds from the project.	We would propose a slight variation in distribution of sale proceeds from the sale of floor space. From the first sales receipts of Rs 45 crores, the developer will share 75% and NMC will get 25%, thus NMC realization would be Rs 11.25 crores from the first 45 crores. From the next sale	Kindly refer Corrigendum 12.

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			proceeds of Rs 35 Crores, Developer will get 25% and NMC will get 75% which would amount to Rs 26.25 Crores. Including the Upfront premium of Rs 5 crores, the total amount paid to NMC from sale proceeds of Rs 80 Crores would be Rs 42.5 Crores. If after payment of 42.5 crores to NMC, any balance payment is due under this contract, NMC would claim 100% of sale proceeds till NMC dues are clear.	
8.	Agreement Page 8, Clause 20	COD on OC	Commercial Operation date should include the date at which part OC is issued by the competent authority	Accepted Kindly refer Corrigendum 3
9.	Agreement Page 8, Clause 29	18 months	Should be 36 months	Kindly refer Corrigendum 1.
10.	Agreement Page 26, Clause 3(O)	To apply for and obtain all requisite approvals and consents including from all Governmental Authorities concerned, for the development of Project Facilities.	NMC should be primarily responsible for obtaining any approvals that are required for the project	NMC shall provide its support wherever necessary but primary responsibility to apply for and obtain all requisite approvals and consents including from all Governmental Authorities





				concerned shall lie with the Developer.
11.	Agreement Page 27, Clause 3.2	The benefit of additional FSI in future in light of the project being in the metro corridor and as per the TOD policy shall accrue equally to NMC and developer	Any additional benefit that may accrue on account of additional FSI due to the project being in the Metro Corridor and as per the TOD policy should accrue to the developer in entirety	Any additional revenue that can be generated by the successful bidder through any enhanced height above 349.91 mtrs shall be submitted to the Strategic Committee of NMC. On approval of the Revenue Model/Planning of the Developer, the appropriate mechanism for sharing with NMC shall be implemented and the same shall be covered through a Supplementary Agreement to the Development Agreement.
12	Agreement Page 29, Clause 4.1(a)	The developer shall pay to NMC by the way of upfront premium a sum of Rs.5 crores	NMC shall receive upfront premium of Rs 5 Crore from the developer as specified in the RFP	Kindly refer Corrigendum 16
13.	Agreement Page 33, Clause 5.1(a)	Fees to M/s Hafeez Contractor =2% of the total cost of the construction to be paid by the developer	The said agreement has been made between NMC and M/s Architect Hafeez Contractor and the developer is not a part of this agreement. Hence, complete fees should be borne by NMC.	Accepted. Kindly refer Corrigendum 4 &5
14.	Agreement Page 43,	18 months	Should be 36 months	Kindly refer Corrigendum 1.

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	Clause 6.3.1(b)			
15.	Agreement Page 48, Clause 6.4.2(a)	Appointment date	Should be Commencement date	Kindly refer Corrigendum 6.
16.	Agreement Page 63, Clause 10.3.1	100% of the Lump-sum Financial Offer amount payable to NMC increased proportionately with the inflation percentage as mentioned above shall be payable by the Developer on or prior to the completion of 80% of the projected Sale proceeds as shown in the financial proposal from the Project.	The Lump sum financial offer accepted by the NMC shall be final and no inflation or escalation shall be taken into account	Agreement condition prevails.
17.	Agreement Page 71, Clause 12.1 (a)/1	Act of God/Earthquake/flood/inundation and landslide	In the definition of Natural Force Majeure, Pandemic shall also be added	Agreement condition prevails.
18.	Agreement Page 77, Clause O	Change in management control of the developer	Clause to be removed entirely	Agreement condition prevails.
Hardik Agarwal				
1.	RFP Page 4, Clause EMD	20,00,000/-	EMD amount should be reduced and allowed in the form of Bank Guarantee	Kindly refer Corrigendum 7
2.	RFP Page 11, Clause 3.1.1	Developer can propose structural design and Internal arrangement	Modifications can be proposed in internal layout etc by the developer only elevation should be unchanged. Approval on the plan can then be given by NMC after conforming with all	The Drawings are sanctioned for an FSI of 3.2, if any modifications are made by the Developer and the FSI to be consumed exceeds 3.2 then necessary fees shall have to be paid for

			required development regulations. No fees should be charged on revision of plans as the project is owned by NMC.	the difference between the enhanced FSI and 3.2.
3.	RFP Page 12, Clause 3.1.3	Seven years for parking and advertisement revenue	The developer should have right to enjoy revenues from parking and advertisement for a period of at-least ten years from the date of issue of OC for the project. Post ten years NMC should call for bids with preferential right to the bidder	Developer shall have right to enjoy revenues from parking and advertisement for a period of Ten years from the date of issue of OC for the project. On completion of Ten years, NMC shall call for fresh bids and appropriate mechanism for First Right of Refusal to the existing developer maybe considered.
4.	RFP Page 16, Clause 1	Seek approval and take NOC of NMC for sale of any component	This provision should be deleted in-toto and in place it can be provided that intimation of every sale to NMC by the developer immediately.	Accepted. Kindly refer Corrigendum 8.
5.	RFP Page 16, Clause 2	Warehouses	As required, the developer would not build any stand alone warehouses but however, space for storing goods for shops / other buyers in the mall should be allowed	Space for storing goods required for the main business such as Shopping Centre etc shall be allowed. Commercial warehousing/storages shall not be

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				allowed.
6.	RFP Page 18, Clause 3.1.10	In case of changes in the design, revised sanction to be taken from town planning department.	Once the developer finalizes any amendments in the design, he will submit the plan to the town planning department however, the developer should not be liable to pay any additional charges on the same and also NMC will accord all possible cooperation in getting the revised map sanctioned	NMC shall provide its support wherever necessary but primary responsibility shall be with the Developer. The Drawings are sanctioned for an FSI of 3.2, if any modifications are made by the Developer and the FSI to be consumed exceeds 3.2 then necessary fees shall have to be paid for the difference between the enhanced FSI and 3.2.
7.	RFP Page 47, Clause 6.1.1	In case payment of balance amount exceeds 24 months, then the balance amount payable to NMC shall be increased by percentage equivalent the increase in ready reckoner rates from previous year for the project site area for upcoming respective year	Ready Reckoner rates can be unchanged or may even come down as per the market situation. Thus, change in balance amount payable on this account should be deleted. The period of 24 months for balance payment should be increased to 36 months. In case total premium payable to NMC is not made within 36 months, it implies that the developer has made his entire investment in the	RFP condition prevails

			construction cost but the saleable area is still balance and that has created a short fall. In any such case, we propose the balance space to the extent of payment due to NMC be transferred on ready reckoner rates to NMC by deed of apartment. The allotment of balance unsold space in such a circumstance would be at the discretion of developer.	
8.	Agreement Page 8, Clause 19	Commercial development	The meaning of Commercial development should include hospitals, hotels, eateries etc	Kindly refer Corrigendum 1
9.	Agreement Page 9, Clause 29	Appointment date	Should be commencement date	Accepted
10.	Agreement Page 15, Clause 78	18 months	Should be 36 months	Kindly refer Corrigendum 2
11.	Agreement Page 27, Clause 3.2	18 months	Should be 36 months	Kindly refer Corrigendum 2
12.	Agreement Page 31, Clause 4.3(B)	However, even in such case the claim against NMC shall only be restricted only up to the Fixed Premium received at the time of signing of Development Agreement.	In this case the claim against NMC by developer should not be restricted and can be up to the real world loss incurred by the developer	Agreement condition prevails
13.	Agreement Page 36, Clause 6(C)	Charges for obtaining relaxation as per DCR to be borne by developer and enhanced revenue to be shared with NMC	The NMC is already receiving Lump Sum Premium equal to Part A + Part B in	Any additional revenue that can be generated by the successful bidder

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			the development agreement and therefore shall not be entitled to any enhanced revenue. This revenue shall be the sole right of the developer	through any enhanced height above 349.91 mtrs shall be submitted to the Strategic Committee of NMC. On approval of the Revenue Model/Planning of the Developer, the appropriate mechanism for sharing with NMC shall be implemented and the same shall be covered through a Supplementary Agreement to the Development Agreement.
14.	Agreement Page 48, Clause 6.4.2(a)	18 months	Should be 36 months	Kindly refer Corrigendum 2
15.	Agreement Page 61, Clause 10.1	The Developer specifically confirms and agrees that no proof of any amount of liability accrued or loss or damages caused or suffered by NMC under this Agreement is required to be provided in connection with any demand made by the NMC to recover such compensation through encashment of the Performance Security	In such case, the NMC shall provide some justification as to how they have calculated the value of such damages	Agreement condition prevails
16.	Agreement Page 66	Revenue from additional development for 7 years from the date of signing development agreement shall be shared equally between NMC and developer and after 7 years it shall be exclusive right of NMC	The NMC shall have no rights to revenue arising from Additional development and the same shall go only to the developer for a	Developer shall have right to enjoy revenues from parking and advertisement for a period of Ten years from the date of





		to lease /operate and earn revenue from such facility	minimum period of 10 years pursuant to which NMC may lease/ operate and earn revenue from such facility with benefit of first right to refusal given to the developer. This should be clarified that this does not hold true for any additional space build by developer. Till the time project is within frame of current FSI and height clearances nmc should be interested in the premium quoted and any additional revenue is there it has to be to developers account.	issue of OC for the project. On completion of Ten years, NMC shall call for fresh bids and appropriate mechanism for First Right of Refusal to the existing developer maybe considered.
17.	Agreement Page 84, Clause 14.9	On foreclosure of the Development and Sales Period by NMC, NMC shall return the Upfront Premium paid by the Developer and the subsisting Performance Security and also allow payments of work done by the Developer at the per square metre rates or by detailed valuation as derived by the Developer at the time of bidding less 20%.	20% shall not be deducted from the valuation or per square metre rates	Kindly refer Corrigendum 19.

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Krishanu Agarwal				
1.	RFP Page 10, Clause 3.1.1	The planning and design of the shopping mall is finalized by NMC	The sanction drawings as also Environment Clearance and Fire NOC have not been provided in this tender, nor it is clear whether such sanctions have been obtained. Please clarify	Details for the Environment Clearance and FIRE NOC can be reviewed at the NMC office. Sanction Drawings are enclosed as Volume III.
2.	RFP Page 12, Clause 3.1.3	Period of 18 month from date of signing agreement	A time period of 36 months pursuant to issue of commencement clearance by NMC should be allowed by NMC. This would include clearance from all government departments	Kindly refer Corrigendum 2
3.	RFP Page 13, Clause 3.1.3	The developer shall not have right to lease out the facility to third party/ any person	We request to add that in case the developer is desirable to lease out any given space to a third person, then a deed of apartment can be executed in his own favour by payment of requisite share of NMC out of the total sales proceeds as has been mentioned further in the RFP	Shall be permitted. The Developer shall need to get the given space registered in its own name by appropriate lawful mechanism before leasing out the given space.
4.	RFP Page 15, Clause 1	Obtaining and adopting the statutory requirement including but not limited to fire, health, environment, if required	The developer should not be burdened with the expenses and time required to obtain clearances from given departments	The Drawings are sanctioned for an FSI of 3.2, if any modifications are made by the Developer and the FSI to be consumed exceeds 3.2





			except to the extent of additional development / changes being made by the developer.	then necessary fees shall have to be paid for the difference between the enhanced FSI and 3.2.
5.	RFP Page 16, Clause 7	Additional FSI or TOD revenue share with NMC	No additional FSI or TOD revenue should be claimed by NMC and it should be limited to Part A plus Part B of the Development Agreement	Any additional revenue that can be generated by the successful bidder through any enhanced height above 349.91 mtrs shall be submitted to the Strategic Committee of NMC. On approval of the Revenue Model/Planning of the Developer, the appropriate mechanism for sharing with NMC shall be implemented and the same shall be covered through a Supplementary Agreement to the Development Agreement.
6.	RFP Page 17, Clause 10	Delay beyond accepted dates, NMC shall be free to take decision regarding the continuation or termination of the agreement	This clause should be deleted in-toto however another provision requiring the developer to pay a penalty for the delay may be inserted instead	Kindly refer Corrigendum 13
7.	RFP Page 47, Clause 6.1.1	Lump-sum premium 45 Crores	In present market conditions, it will be unviable to set a lump-sum premium of Rs 45 crores. The land cost and already developed portion valuation cannot be so high. It is highly	RFP condition prevails

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			optimistic to recover such high premium and cost of development by developer.	
8.	RFP Page 47, Clause 6.1.1	Selling Rate	The developer should individually be free to decide the selling rate at which he wishes to sell	Accepted. Kindly refer Corrigendum 9
9.	Agreement Page 9, Clause 23	Construction Period means the period beginning from the appointment date and ending on COD	Construction Period should start from the date of Commencement Certificate and end on COD	Accepted
10.	Agreement Page 14, Clause 70	Bills of the independent engineer to be paid by the developer	Though it should be the responsibility of NMC to pay the Independent Engineer, in case it is to be paid by the developer the independent engineers remuneration and scope of work should be spelled out clearly before hand	Accepted. Kindly refer Corrigendum 4 &5
11.	Agreement Page 14, Clause 3(P)	Any part of the work (but not the whole of works) may be sub-contracted by the Developer through construction contracts/ O&M Contract,	Delete within bracket "but not the whole works"	Accepted. But the Developer selected through this bidding process shall not be allowed to sub contract the entire contract and the selected Developer shall only be solely responsible for the Project.
12.	Agreement Page 27, Clause 3.2	The revenue earned (benefit) from such additional development	Any extra revenue generated from any additional	Any additional revenue that can be generated by the

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		shall be shared equally between NMC and the developer .Such additional revenue shall be over and above the amount quoted by the successful bidder	development shall not accrue to NMC and will accrue to the developer in entirety	successful bidder through any enhanced height above 349.91 mtrs shall be submitted to the Strategic Committee of NMC. On approval of the Revenue Model/Planning of the Developer, the appropriate mechanism for sharing with NMC shall be implemented and the same shall be covered through a Supplementary Agreement to the Development Agreement.
13.	Agreement Page 29, Clause 4.1 (c)	Approval of detailed building development plan	In case of any revision to the building plan, NMC shall check and approve the revised plan without taking any additional charges from the developer	The Drawings are sanctioned for an FSI of 3.2, if any modifications are made by the Developer and the FSI to be consumed exceeds 3.2 then necessary fees shall have to be paid for the difference between the enhanced FSI and 3.2.
14.	Agreement Page 33, Clause 5.1 (e)	The remuneration paid to independent engineer should be borne by the developer	This clause should be deleted altogether	Accepted Kindly refer Corrigendum 4 &5
15.	Agreement Page 47, Clause 6.4.1 (e)	The developer waves off any right for extension after the initial period of 60 month is over and has to transfer the fully constructed structure peaceful, free of cost, free from any encumbrance, encroachments and in good	This clause should not be included. In such a case, after the period of 60 months is over, the developer shall transfer components with value equal to the	Agreement condition prevails

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		working condition	unpaid balance of the NMC, calculated according to prevailing Ready Reckoner rates	
16.	Agreement Page 51, Clause 6.4.4	18 months	Should be 36 months	Kindly refer Corrigendum 2
17.	Agreement Page 63, Clause 10.3.1 (part A)	Upfront premium of 5 crore to be paid in 60 days	Upfront Premium to be paid in accordance with the schedule prescribed in the RFP	Kindly refer Corrigendum 16
18.	Agreement Page 83, Clause 14.6 (iv)	All other movable or detachable assets, including plant, machinery, construction equipment, raw material, stocks etc lying on the Site and which form part of the Project Assets shall become property of NMC on the date this Development Agreement is terminated	Any movable or detachable assets that are the property of the developer can be removed by the developer from the project site within a stipulated period of time	Any movable or detachable assets which form part of the Project Assets shall become property of NMC. Equipment/Machinery deployed by the Developer for the construction purposes shall be allowed to be removed from the Project Site within a stipulated period of time.
19.	Agreement Page 87, Clause 16.1	The unsold project facilities shall be transferred to NMC on the transfer date as per development agreement, being the date on which agreement shall come to an end by efflux of time or the date of termination whichever is earlier	If any components of the project are unsold on the transfer date, the developer shall transfer facilities with value equal to unpaid balance of the NMC, calculated at prevailing ready reckoner rates	Agreement condition prevails





Vidarbha Infotech				
1.	RFP Page 4, Clause EMD	20,00,000/-	EMD amount should be reduced and allowed in the form of Bank Guarantee	Kindly refer Corrigendum 7.
2.	Page 9	Indicative project facility	In the definition of Indicative project facility, any other permissible commercial activity which may include restaurants, hotels , hospitals etc should be added	Kindly refer Corrigendum 1
3.	RFP Page 10, Clause 3.1.1	The planning and design of the shopping mall is finalized by NMC	The sanction drawings as also Environment Clearance and Fire NOC have not been provided in this tender, nor it is clear whether such sanctions have been obtained. Please clarify	Details for the Environment Clearance and FIRE NOC can be reviewed at the NMC office. Sanction Drawings are enclosed as Volume III.
4.	RFP Page 11, Clause 3.1.1	Developer can propose structural design and Internal arrangement	Modifications can be proposed in internal layout etc by the developer only elevation should be unchanged. Approval on the plan can then be given by NMC after conforming with all required development regulations. No	The Drawings are sanctioned for an FSI of 3.2, if any modifications are made by the Developer and the FSI to be consumed exceeds 3.2 then necessary fees shall have to be paid for the difference between the enhanced FSI and 3.2.

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			fees should be charged on revision of plans as the project is owned by NMC.	
6.	RFP Page 12, Clause 3.1.3	Sale Agreement will be tri-party agreement between NMC, Developer and Buyer	NMC will ensure to provide an authorized signatory for the purpose of registration of the tri-party agreement immediately on presentation	Accepted
7.	RFP Page 12, Clause 3.1.3	Period of 18 month from date of signing agreement	A time period of 36 months pursuant to issue of commencement clearance by NMC should be allowed by NMC. This would include clearance from all government departments	Kindly refer Corrigendum 2.
8.	Page 12, Clause 3.1.3	The ownership of the project land shall vest with NMC at all times	It is clear that the developer will not in any case have ownership rights over the project land at any given period of time but the buyer will have right towards undivided share of the land and this would be incorporated in the Deed of Apartment or any other ownership document that would be registered by the developer	Kindly refer Corrigendum 12.

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			and NMC in the name of the buyer, please clarify	
9.	RFP Page 13, Clause 3.1.3	The developer shall not have right to lease out the facility to third party/ any person	We request to add that in case the developer is desirable to lease out any given space to a third person, then a deed of apartment can be executed in his own favour by payment of requisite share of NMC out of the total sales proceeds as has been mentioned further in the RFP	Shall be permitted. The Developer shall need to get the given space registered in its own name by appropriate lawful mechanism before leasing out the given space.
10.	RFP Page 12, Clause 3.1.3	Seven years for parking and advertisement revenue	The developer should have right to enjoy revenues from parking and advertisement for a period of at-least ten years from the date of issue of OC for the project. Post ten years NMC should call for bids with preferential right to the bidder	Developer shall have right to enjoy revenues from parking and advertisement for a period of Ten years from the date of issue of OC for the project. On completion of Ten years, NMC shall call for fresh bids and appropriate mechanism for First Right of Refusal to the existing developer maybe considered.
11.	Page 14, Clause 3.1.3	Setting up of rooftop restaurant or some other facilities	The rooftop restaurant is allowed in this RFP, NMC should mention about clearances including fire NOC upfront. Any facility/ rooftop restaurant so	NMC shall have exclusive ownership over the terrace and roof top restaurant. The successful bidder can operate / sub-let/appoint operator for the rooftop Restaurant for a period of 10 years and the revenue earned during this 10 year period shall

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			created would be registered by executing a deed of apartment in the name of the developer or any person of his choice. Please clarify	be the exclusive right of the developer. The developer shall develop the asset and operate / sub-let/appoint any person to run the facility for a period of 10 years After the period of 10 years, the developer shall hand over the asset to NMC. Kindly refer Corrigendum 10.
12.	RFP Page 15, Clause 1	Obtaining and adopting the statutory requirement including but not limited to fire, health, environment, if required	The developer should not be burdened with the expenses and time required to obtain clearances from given departments except to the extent of additional development / changes being made by the developer.	The Drawings are sanctioned for an FSI of 3.2, if any modifications are made by the Developer and the FSI to be consumed exceeds 3.2 then necessary fees shall have to be paid for the difference between the enhanced FSI and 3.2.
13.	RFP Page 16, Clause 1	Seek approval and take NOC of NMC for sale of any component	This provision should be deleted in-toto and in place it can be provided that intimation of every sale to NMC by the developer immediately	Accepted. Kindly refer Corrigendum 8.
14.	RFP Page 16,	Additional development revenue sharing	No additional revenue from additional development	Any additional revenue that can be generated by the successful bidder through any enhanced





			should be claimed by NMC and it should be limited to the premium as quoted by the bidder	height above 349.91 mtrs shall be submitted to the Strategic Committee of NMC. On approval of the Revenue Model/Planning of the Developer, the appropriate mechanism for sharing with NMC shall be implemented and the same shall be covered through a Supplementary Agreement to the Development Agreement.
15.	RFP Page 16, Clause 7	Additional FSI or TOD revenue share with NMC	No additional FSI or TOD revenue should be claimed by NMC and it should be limited to Part A plus Part B of the Development Agreement	As above
16	RFP Page 16, Clause 2	Warehouses	As required, the developer would not build any stand alone warehouses but however, space for storing goods for shops / other buyers in the mall should be allowed	Space for storing goods required for the main business such as Shopping Centre etc shall be allowed. Commercial warehousing/storages shall not be allowed.
17.	Agreement Page 17, Clause 9	18 months	Should be 36 months	Kindly refer Corrigendum 2
18.	RFP Page 17, Clause 10	Delay beyond accepted dates, NMC shall be free to take decision regarding the continuation or termination of the agreement	This clause should be deleted in-toto however another provision requiring the developer to pay a penalty for the delay may be inserted instead	Kindly refer Corrigendum 13
19.	RFP Page 18,	In case of changes in the design, revised sanction to	Once the developer finalizes	The Drawings are sanctioned for an FSI of

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	Clause 3.1.10	be taken from town planning department.	any amendments in the design, he will submit the plan to the town planning department however, the developer should not be liable to pay any additional charges on the same and also NMC will accord all possible cooperation in getting the revised map sanctioned	3.2, if any modifications are made by the Developer and the FSI to be consumed exceeds 3.2 then necessary fees shall have to be paid for the difference between the enhanced FSI and 3.2.
20.	RFP Page 47, Clause 6.1.1	Upfront premium of Rs.5 crore	The requirement for payment of Upfront premium of Rupees 5 Crores should be altered wherein Rupees one crore is paid within sixty days and the balance amount is paid by way of four post dated cheques of Rs 1 crore each to be deposited after successive intervals of sixty days each from the date of first payment	Kindly refer Corrigendum 16
21.	RFP Page 47, Clause 6.1.1	Lump-sum premium 45 Crores	In present market conditions, it will be unviable to set a lump-sum premium of Rs 45 crores. The land cost and already developed portion valuation cannot	RFP condition prevails





			be so high. It is highly optimistic to recover such high premium and cost of development by developer.	
22.	RFP Page 47, Clause 6.1.1	In case payment of balance amount exceeds 24 months, then the balance amount payable to NMC shall be increased by percentage equivalent the increase in ready reckoner rates from previous year for the project site area for upcoming respective year	Ready Reckoner rates can be unchanged or may even come down as per the market situation. Thus, change in balance amount payable on this account should be deleted. The period of 24 months for balance payment should be increased to 36 months. In case total premium payable to NMC is not made within 36 months, it implies that the developer has made his entire investment in the construction cost but the saleable area is still balance and that has created a short fall. In any such case, we propose the balance space to the extent of payment due to NMC be transferred on ready reckoner rates to NMC by deed of apartment.	RFP condition prevails





			The allotment of balance unsold space in such a circumstance would be at the discretion of developer.	
23.	RFP Page 47, Clause 6.1.1	100% of lump-sum amount payable to NMC shall be payable by the developer on or prior to completion of 80% sale proceeds from the project.	We would propose a slight variation in distribution of sale proceeds from the sale of floor space. From the first sales receipts of Rs 45 crores, the developer will share 75% and NMC will get 25%, thus NMC realization would be Rs 11.25 crores from the first 45 crores. From the next sale proceeds of Rs 35 Crores, Developer will get 25% and NMC will get 75% which would amount to Rs 26.25 Crores. Including the Upfront premium of Rs 5 crores, the total amount paid to NMC from sale proceeds of Rs 80 Crores would be Rs 42.5 Crores. If after payment of 42.5 crores to NMC, any balance payment is due under this contract, NMC	During the presentation, the Developer shall submit its detailed Financial Plan including the Revenue Model and the Financial Plan submitted during the Presentation shall be evaluated by the Committee and the same shall be accepted. Refer Corrigendum 12

			would claim 100% of sale proceeds till NMC dues are clear.	
24.	RFP Page 47, Clause 6.1.1	Selling Rate	The developer should individually be free to decide the selling rate at which he wishes to sell	Accepted. Kindly refer Corrigendum 9 & 10.
25.	Agreement Page 63, Clause 10.3.1	100% of the Lump-sum Financial Offer amount payable to NMC increased proportionately with the inflation percentage as mentioned above shall be payable by the Developer on or prior to the completion of 80% of the projected Sale proceeds as shown in the financial proposal from the Project.	The Lump sum financial offer accepted by the NMC shall be final and no inflation or escalation shall be taken into account	Agreement condition prevails
26.	Agreement Page 8, Clause 19	Commercial development	The meaning of Commercial development should include hospitals, hotels, eateries etc	Kindly refer Corrigendum 1
27.	Agreement Page 8, Clause 20	COD on OC	Commercial operation date should include the date at which part OC is issued by the competent authority	Accepted Kindly refer Corrigendum 3
28.	Agreement Page 9, Clause 23	Construction period means the period beginning from the appointment date and ending on COD	Construction period should start from date of commencement certificate and end on COD	Accepted
29.	Agreement Page 9, Clause 29	Appointment date	Should be commencement date	Accepted

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30.	Page 16, Clause 9	18 months	36 months	Kindly refer Corrigendum 2
31.	Agreement Page 14, Clause 70	Bills of the independent engineer to be paid by the developer	Though it should be the responsibility of NMC to pay the independent Engineer, in case it is to be paid by the developer the independent engineers remuneration and scope of work should be spelled out clearly before hand	Accepted. Kindly refer Corrigendum 4 &5
32.	Page 15, Clause 78	18 months	Should be 36 months	Kindly refer Corrigendum 2
33.	Agreement Page 26, Clause 3(O)	To apply for and obtain all requisite approvals and consents including from all Governmental Authorities concerned, for the development of Project Facilities.	NMC should be primarily responsible for obtaining any approvals that are required for the project	NMC shall provide its support wherever necessary but primary responsibility shall be with the Developer.
34.	Agreement Page 26, Clause 3(P)	Any part of the work (but not the whole of works) may be sub-contracted by the Developer through construction contracts/ O&M Contract,	Delete within bracket "but not the whole works"	Accepted But the Developer selected through this bidding process shall not be allowed to sub contract the entire contract and the selected Developer shall only be solely responsible for the Project.

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35.	Page 27, Clause 3.2	18 months	Should be 36 months	Kindly refer Corrigendum 2
36.	Agreement Page 27, Clause 3.2	The benefit of additional FSI in future in light of the project being in the metro corridor and as per the POD policy shall accrue equally to NMC and developer	Any additional benefit that may accrue on account of additional FSI due to the project being in the Metro Corridor and as per the TOD policy should accrue to the developer in entirety	Any additional revenue that can be generated by the successful bidder through any enhanced height above 349.91 mtrs shall be submitted to the Strategic Committee of NMC. On approval of the Revenue Model/Planning of the Developer, the appropriate mechanism for sharing with NMC shall be implemented and the same shall be covered through a Supplementary Agreement to the Development Agreement.
37.	Agreement Page 27, Clause 3.2	The revenue earned (benefit) from such additional development shall be shared equally between NMC and the developer .Such additional revenue shall be over and above the amount quoted by the successful bidder	Any extra revenue generated from any additional development shall not accrue to NMC and will accrue to the developer in entirety	As above
38.	Agreement Page 29, Clause 4.1(a)	The developer shall pay to NMC by the way of upfront premium a sum of Rs.5 crores	NMC shall receive upfront premium of Rs 5 Crore from the developer as specified in the RFP	Kindly refer Corrigendum 16
39.	Agreement Page 29, Clause 4.1 (c)	Approval of detailed building development plan	In case of any revision to the building plan, NMC shall check and approve the revised plan without taking any additional charges from the developer	The Drawings are sanctioned for an FSI of 3.2, if any modifications are made by the Developer and the FSI to be consumed exceeds 3.2,

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				then necessary fees shall have to be paid for the difference between the enhanced FSI and 3.2.
40.	Agreement Page 31, Clause 4.3(B)	However, even in such case the claim against NMC shall only be restricted only up to the Fixed Premium received at the time of signing of Development Agreement.	In this case the claim against NMC by developer should not be restricted and can be up to the real world loss incurred by the developer	Agreement condition prevails
41.	Agreement Page 33, Clause 5.1(a)	Fees to M/s Hafeez Contractor =2% of the total cost of the construction to be paid by the developer	The said agreement has been made between NMC and M/s Architect Hafeez Contractor and the developer is not a part of this agreement. Hence, complete fees should be borne by NMC.	Accepted. Kindly refer Corrigendum 4 & 5
42.	Agreement Page 33, Clause 5.1 (e)	The remuneration paid to independent engineer should be borne by the developer	This clause should be deleted altogether	Accepted. Kindly refer Corrigendum 4 & 5
43.	Agreement Page 36, Clause 6(C)	Charges for obtaining relaxation as per DCR to be borne by developer and enhanced revenue to be shared with NMC	The NMC is already receiving Lump Sum Premium equal to Part A + Part B in the development agreement and therefore shall not be entitled to any enhanced revenue. This revenue shall be the sole right of the developer	Any additional revenue that can be generated by the successful bidder through any enhanced height above 349.91 mtrs shall be submitted to the Strategic Committee of NMC. On approval of the Revenue Model/Planning of the Developer, the appropriate mechanism for sharing with NMC shall be implemented and the same shall be covered

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				through a Supplementary Agreement to the Development Agreement.
44.	Page 43, Clause 6.3.1(b)	18 months	Should be 36 months	Kindly refer Corrigendum 1
45.	Agreement Page 47, Clause 6.4.1 (e)	The developer waves off any right for extension after the initial period of 60 month is over and has to transfer the fully constructed structure peaceful, free of cost, free from any encumbrance , encroachments and in good working condition	This clause should not be included. In such a case, after the period of 60 months is over, the developer shall transfer components with value equal to the unpaid balance of the NMC, calculated according to prevailing Ready Reckoner rates	Agreement condition prevails
46.	Agreement Page 48, Clause 6.4.2(a)	18 months	Should be 36 months	Kindly refer Corrigendum 1
47.	Agreement Page 48, Clause 6.4.2(a)	Appointment date	Should be commencement date	Accepted
48.	Agreement Page 51, Clause 6.4.4	18 months	Should be 36 months	Kindly refer Corrigendum 1
49.	Agreement Page 61, Clause 10.1	The Developer specifically confirms and agrees that no proof of any amount of liability accrued or loss or damages caused or suffered by NMC under this Agreement is required to be provided in connection with any demand made by the NMC to recover such compensation through encashment of the Performance Security	In such case, the NMC shall provide some justification as to how they have calculated the value of such damages	Agreement condition prevails
50.	Agreement Page 63, Clause 10.3.1	100% of the Lump-sum Financial Offer amount payable to NMC increased proportionately with the	The Lump sum financial offer accepted by the NMC shall be	Agreement condition prevails

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		inflation percentage as mentioned above shall be payable by the Developer on or prior to the completion of 80% of the projected Sale proceeds as shown in the financial proposal from the Project.	final and no inflation or escalation shall be taken into account	
51.	Agreement Page 63, Clause 10.3.1 (part A)	Upfront Premium of Rs 5 Crores to be paid within 60 days	Upfront premium to be paid as per schedule prescribed in the RFP.	Kindly refer Corrigendum 16
52.	Agreement Page 66	Revenue from additional development for 7 years from the date of signing development agreement shall be shared equally between NMC and developer and after 7 years it shall be exclusive right of NMC to lease /operate and earn revenue from such facility	The NMC shall have no rights to revenue arising from Additional development and the same shall go only to the developer for a minimum period of 10 years pursuant to which NMC may lease/ operate and earn revenue from such facility with benefit of first right to refusal given to the developer. This should be clarified that this does not hold true for any additional space build by developer. Till the time project is within frame of current FSI and height clearances NMC should be interested in the premium quoted and any additional revenue is there it has to be to developers account.	Any additional revenue that can be generated by the successful bidder through any enhanced height above 349.91 mtrs shall be submitted to the Strategic Committee of NMC. On approval of the Revenue Model/Planning of the Developer, the appropriate mechanism for sharing with NMC shall be implemented and the same shall be covered through a Supplementary Agreement to the Development Agreement.
53.	Agreement Page 71, Clause 12.1 (a)/1	Act of God/Earthquake/flood/inundation and landslide	In the definition of Natural Force Majeure, Pandemic shall also be added	Agreement condition prevails





54.	Agreement Page 83, Clause 14.6 (iv)	All other movable or detachable assets, including plant, machinery, construction equipment, raw material, stocks etc lying on the Site and which form part of the Project Assets shall become property of NMC on the date this Development Agreement is terminated	Any movable or detachable assets that are the property of the developer can be removed by the developer from the project site within a stipulated period of time	Any movable or detachable assets which form part of the Project Assets shall become property of NMC. Equipment/Machinery deployed by the Developer for the construction purposes shall be allowed to be removed from the Project Site within a stipulated period of time.
55.	Agreement Page 84, Clause 14.9	On foreclosure of the Development and Sales Period by NMC, NMC shall return the Upfront Premium paid by the Developer and the subsisting Performance Security and also allow payments of work done by the Developer at the per square metre rates or by detailed valuation as derived by the Developer at the time of bidding less 20%.	20% shall not be deducted from the valuation or per square metre rates	Agreement condition prevails
56.	Agreement Page 77, Clause O	Change in management control of the developer	Clause to be removed entirely	Agreement condition prevails
57.	Agreement Page 87, Clause 16.1	The unsold project facilities shall be transferred to NMC on the transfer date as per development agreement, being the date on which agreement shall come to an end by efflux of time or the date of termination whichever is earlier	If any components of the project are unsold on the transfer date, the developer shall transfer facilities with value equal to unpaid balance of the NMC, calculated at prevailing ready reckoner rates	Agreement condition prevails

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1.	RFP Clause 5.1.1(a)	Built up area	At the place of built up area please mention construction area	RFP condition prevails
2.	RFP Clause 5.1.1(b) iii	Unutilized Credit Lines	At the place of Unutilized Credit Lines please mention financial line facility letter from Nationalized Bank or semi nationalized Bank	Accepted. Kindly refer Corrigendum 14
3.	RFP Clause 5.1.2	Technical Experience	For Technical Experience please mention Auditorium and also mention contract or sub contract	Accepted. Kindly refer Corrigendum 15
4.	RFP Page 19 Clause 5.1.2	Undertaking for Sale	In place of NOC before undertaking any sale of any component of project please mention NOC for execution of Sale Deed.	Accepted. Kindly refer Corrigendum 8

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Corrigendum No 1:

- **RFP Section 2 Abbreviations: Page No 09:**

➢ **Existing Clause:**

Indicative Project Facilities means all the amenities and facilities as mentioned in the Design Proposal including:

- Hypermarkets & Anchor Shops
- Showrooms & Shops
- Commercial Offices & Conference Hall
- Recreational Spaces
- Multiplex/Miniplex
- Requisite Parking

➢ **Revised Clause to be read as:**

Indicative Project Facilities means all the amenities and facilities as mentioned in the enclosed Design Proposal including:

- Hypermarkets & Anchor Shops
- Showrooms & Shops
- Commercial Offices & Conference Hall
- Recreational Spaces
- Multiplex/Miniplex
- Hotels and Restaurants
- Hospitals
- Requisite Parking

The above inclusion of Hotels, Restaurants and Hospitals in the ambit of the Project Facilities is subject to the prevailing guidelines/ laws for setting up of Hotels, Restaurants and Hospitals within commercial buildings.

In case the Developer intends to include Hotels, Restaurants and Hospitals within the Project Facilities then obtaining the necessary applicable Statutory Clearances as well as approval from Town Planning department shall be the sole responsibility of the Developer.





Corrigendum No 2:

- **RFP Clause 3.1.3 Scope of Work: Page No 12:**

➢ **Existing Clause:**

The Developer shall construct the Multi Utility Shopping Mall with Office spaces and requisite Parking on a total area of approximately 3300 square meters within a period of 18 (Eighteen) months for the entire building.

➢ **Revised Clause to be read as:**

The Developer shall construct the Multi Utility Shopping Mall with Office spaces and requisite Parking on a total area of approximately 3300 square meters within a period of 30 (Thirty) months for the entire building.

Corrigendum No 3:

- **Agreement Article 1: Definitions & Interpretations, page 08, Definition 20**

➢ **Existing Clause:**

- **Commercial Operation Date** (COD) shall have the meaning as completion of project at such stage at which occupancy certificate for whole occupiable components of building are completed and occupancy certificate of the same is issued by the competent authority.

➢ **Revised Clause to be read as:**

- **Commercial Operation Date** (COD) shall have the meaning as completion of project at such stage at which occupancy certificate for whole or part of the occupiable components of building are completed and occupancy certificate of the same is issued by the competent authority.

  When Occupancy Certificate is issued only for a part of the Project, then it shall be construed only as Provisional COD.

  Completed COD shall be considered by NMC only when all the components of the Project are completed as per the GFC Drawings and the same are approved by the Independent Engineer and the Occupancy Certificate for the complete Project is issued.

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Corrigendum No 4:

- **Agreement Article 5.1: Independent Engineer/Monitoring Agency: Point a, page 33.**

- **Existing Clause:**

  NMC has appointed M/s. Architect Hafeez Contractor, Nagpur as its Project Management Consultant for the Project and who shall be the Independent Engineer cum Monitoring Agency of NMC for the activities of the Developer and its PMC for this project. As per the agreement between NMC & the Independent Engineer M/s. Architect Hafeez Contractor, professional fees at the rate of 2% of total cost of construction and development plus additional GST (difference between prevailing rate on the date of signing original MoU in 2012 and current rate) for the Post Tender activities shall be payable by Developer to the PMC. The Bill of the NMC Independent Engineer shall be approved by NMC (Payment of NMC Independent Engineer Fees). The fees of the Independent Engineer to be paid by the Developer shall be over and above the amounts payable to NMC. The fees of the Independent Engineer shall be deposited by Developer in the NMC bank account.

➢ **Revised Clause to be read as:**

  NMC has appointed M/s. Architect Hafeez Contractor, Nagpur as its Project Management Consultant for the Project and who shall be the Independent Engineer cum Monitoring Agency of NMC for the activities of the Developer and its PMC for this project for the Post Tender activities shall be borne by NMC.

Corrigendum No 5:

- **Agreement Article 5.1.: Independent Engineer/Monitoring Agency: Point e, page 33.**

➢ **Existing Clause stands deleted**

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Corrigendum No 6:

- **Agreement Article 6.4.2: Extension of Time: Point a, page 48.**

➢ **Existing Clause:**

Without prejudice to the rights, powers and remedies of NMC, NMC shall issue a notice to the Developer in the event there is a probable delay in completion of Project Facilities and achieving the Commercial Operation Date beyond the period of 18 (Eighteen) months from the Appointed Date for reason(s)other than the Force Majeure events.

➢ **Revised Clause to be read as:**

➢ Without prejudice to the rights, powers and remedies of NMC, NMC shall issue a notice to the Developer in the event there is a probable delay in completion of Project Facilities and achieving the Commercial Operation Date beyond the period of 30 (Thirty) months from the Commencement Date for reason(s)other than the Force Majeure events.

Corrigendum No 7:

- **RFP Section 3.2.1 Bidding through E-Tendering System: Page 19.**

The Earnest Money Deposit (EMD) is Rs 10 (Ten) Lakhs.

The Bidder shall make Payment of EMD in the form of:

Bank Guarantee (BG) in the favour of Executive Engineer (Projects) NMC valid for 6 months from the date of submission of bids drawn from any Nationalised Bank.

Or

Term Deposit Receipt (TDR) pledged in the name of Executive Engineer (Projects) NMC

The above mentioned instrument should be scanned and uploaded along with Part A-Technical Bid and the original of the same shall be submitted in the office of the Executive Engineer Projects NMC within two days after the online submission time and shall not be submitted before submission of the online bid.

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- **Existing Clause:**
  Bidder shall submit the Bid Document cost and EMD online through RTGS/NEFT.

- **Revised Clause to be read as:**
  Bidder shall submit the Bid Document cost online through RTGS/NEFT.

Corrigendum No 8:

RFP Section Permitted Development Point 1: Page 15 &16

- **Existing Clause:**
  Seek approval from NMC and obtain its No Objection Certificate before undertaking sale of any component of the Project.

- **Revised Clause to be read as:**
  Intimation of every sale shall be made to NMC by the developer immediately on finalisation of terms with buyer and before receipt of first down payment from the Purchaser.

Corrigendum No 9:

RFP 6.1 Financial Offer: Page 47.

- **New Clause added to be read as:**
  The Developer shall be at a liberty to decide the selling price for the various components of the Project depending on the prevailing market sentiments which shall be informed to the NMC Strategic Committee before finalisation of final terms with the prospective buyer.

  However the Selling Rate shall at no times be equal to or lower than the prevailing Ready Reckoner Rates for the zone.

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Corrigendum No 10:

New Clause inserted regarding Rooftop Restaurant to be read as:

The period to the Developer for operating/sub-letting/appointing an operator for operation & maintenance of the Rooftop Restaurant shall be Ten (10) years.

The said 10 year period shall commence from:

i. Day on which the operations of the Rooftop Restaurant commences
Or
ii. Construction period of 30 months.

Whichever of the above two timelines is earlier shall be considered by NMC for calculation of the 10 year period.

On completion of this term of 10 years, the Developer shall peacefully and encumbrance free, handover the roof top restaurant in the condition and status as approved in the design and plans with all the appurtenances and attachments as per the approved plans and design.

On completion of the 10 year period, the Developer shall have First Right of Refusal for further operation of the Rooftop Restaurant subject to NMC terms and conditions.

Corrigendum No 11:

RFP Clause 3.1.3: Page 12.

- **Additional Clause added to be read as:**

The ownership of the project land shall vest with NMC at all times but the buyer shall have right towards an undivided share of the Project land in proportion to the area of the Project component purchased by it and this would be incorporated in the Sale Deed/ Deed of Apartment or any other ownership document that would be registered by NMC in the name of the buyer through the Developer. The developer shall act as a facilitator to register the document with Registrar on behalf of NMC.

It's clearly spelt out here that the ownership of the terrace of final floor; commercial parking area and advertising rights over the entire project facilities; at all times shall exclusively vest with NMC without any encumbrances.
The Developer shall be responsible to include these mandatory terms in the agreement of all the buyers in the said project. NMC will also hold undivided share in proportion to the above mentioned components in his name

Any excess parking shall also be the property of NMC.

The ownership rights of the terrace shall also belong to NMC.

Corrigendum No 12:

RFP Clause 6.1: Page 47.

- **Additional Clause added to be read as:**

The payment of NMC Sales Revenue share shall be through the Escrow Account mechanism.

The payment schedule of the NMC Sales Revenue shall be as per the RFP and it shall be routed to NMC through the exclusive account opened by the developer for this project to receive the payment from buyer. All the payments from buyer shall only be deposited in this account only.

During the Technical Presentation, the Developer shall submit its detailed Financial Plan including the Revenue Model and the Financial Plan submitted during the Technical Presentation shall be evaluated by the Committee and the same shall be accepted.

The format for the Draft Escrow Agreement is enclosed herewith.

Corrigendum No 13:

RFP Clause 10: Page 17.

- **Revised Clause to be read as:**

In the event that completion of Project construction does not occur on or before a period of Thirty Months from the Commencement Date for any reasons attributable to Developer, NMC may allow a grace period of maximum 60 days.

After completion of the grace period of 60 days, the matter shall be presented to the Empowered Committee of NMC and the decision regarding continuation/termination/payment of penalty by the Developer for such delay, shall be taken by the Empowered Committee after evaluating the reason/s for such delay.

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Corrigendum No 14:

RFP Clause- Financial Capacity Section 5.1.1(b) iii Page 41.

- **Existing Clause:**

  The Bidder should have un-utilized Credit Lines with its Bankers or liquid funds to the tune of at-least Rs. 08 Crores (Rupees Eight Crores)

- **Revised Clause to be read as:**

  The Bidder should submit a Bank Letter, indicating the availability of Financial Line Facility or liquid funds of at-least Rs. 08 Crores (Rupees Eight Crores) and such Bank Letter shall be issued only from a Nationalized Bank.

Corrigendum No 15:

RFP Clause- For the purpose of qualification, Similar Projects shall mean 5.1.2 Page 42.

- **Existing Clause:**

  Any Real Estate Development project such as those of Government/Institutional buildings, Hotel buildings, Convention Centres, Educational buildings, Hospital buildings, Multi Utility Shopping Complex/Mall, Integrated Commercial Office Complex with requisite parking.

- **Revised Clause to be read as:**

  Any Real Estate Development project such as those of Government/Institutional buildings, Hotel buildings, Convention Centres, Auditoriums, Educational buildings, Hospital buildings, Multi Utility Shopping Complex/Mall, Integrated Commercial Office Complex with requisite parking.

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Corrigendum No 16:

RFP Clause- 6.1.1 First Bullet Point, Page 47.

- **Revised Clause to be read as:**

The Bidder may defer the Upfront Premium by paying minimum Rs. 2 Crores within 60 days of signing of the Development Agreement.
The balance Upfront Premium shall be paid by way of post dated cheques within 6 months from the initial 60 days i.e. **entire Upfront Payment shall be paid to NMC within 240 days from signing of Agreement.**

Corrigendum No 17:

RFP Clause- Additional Development Page 14.

- **Additional Clause added to be read as:**

Revenue Sharing Mechanism for Additional Development:

Any development above the currently approved 42.83 mts shall be construed as Additional Development.

For Profit Sharing between NMC and Developer of the profits accrued from any such Additional Development shall be referred to the Strategic Committee. The Strategic Committee shall analyze the Revenue Model for the Additional Development submitted by the Developer. Based on its analysis the Strategic Committee shall devise an equitable and fair Profit Sharing mechanism and it shall be implemented by executing a Supplementary Agreement between NMC and the Developer.

Valuation of Additional Development:

For arriving at the Sale Value of any additional development, valuation shall be undertaken by the Developer through three reputed and registered Valuers. (Registered with Institution of Valuers) and based on this Valuation Report the Sale Value for additional development shall be finalized.

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Structural Stability:

Any proposed Additional Development by way of increase in height shall need to be appraised for its Structural Stability given that there shall be additional load on the building sub-structure.

The Structural Stability Report for the current approved plan has been obtained by NMC through a third party expert agency i.e. VNIT.

Hence for any changes proposed by the Developer in the structural drawings of the Project, the same shall have to be vetted and approved by VNIT and the sole responsibility for this shall be with the Developer.

Corrigendum No 18:

- **Additional Clause added to be read as:**

Ownership document to be signed by NMC with the prospective buyers can be a Sale Deed or Deed of Apartment depending on the legal implications of the same.

The Developer can facilitate for signing of either Sale Deed or Deed of Apartment depending on its profitability but at no time shall such signing is against any prevailing law and NMC shall bear no liability in this regard.

Corrigendum No 19:

Agreement Clause- 14.9 – Foreclosure Page 84.

- **Existing Clause:**

On foreclosure of the Development and Sales Period by NMC, NMC shall return the Upfront Premium paid by the Developer and the subsisting Performance Security and also allow payments of work done by the Developer at the per square metre rates or by detailed valuation as derived by the Developer at the time of bidding less 20%.This payable amount shall be adjusted/recovered from the payments accrued to the Developer out of the advances/sales proceeds received by it

- **Revised Clause to be read as:**

On foreclosure of the Development and Sales Period by NMC, NMC shall return to the Developer the amount invested by the Developer in the Project till such Foreclosure.





For valuation of such investment by the Developer, valuation shall be undertaken by the Developer through three reputed and registered Valuers. (Registered with Institution of Valuers) and based on this Valuation Report the Investment Value shall be finalized.

In case NMC has received more than 80% of its Revenue Share from the sale of the project components in such a scenario NMC shall withhold 1.5 times of the balance receivable Revenue Share from the amount due to the Developer.

Additional Clause to be read as

NMC Payment on Efflux of Time:
After Efflux of Time if any part of the Revenue Share from the sale of the project components remain unpaid to NMC then:

- Developer can pay NMC the balance amount from its own resources and NMC shall then transfer all Sales Rights to the Developer.
  Or
- If NMC has received more than 80% of its Revenue Share from the sale of the project components in such a scenario NMC shall withhold 1.5 times of the balance receivable Revenue Share from the amount due to the Developer and then transfer all Sales Rights to the Developer.

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Draft Escrow Agreement

DRAFT ESCROW AGREEMENT

[To be filled in after the award of the winning offer, prior to the execution of the Contract]

THIS **ESCROW AGREEMENT** (hereinafter referred to as this **"Agreement"**), is made and entered into this_____day of_____by and between:

1. ..... represented by .....and having its principle office at .....duly authorized by G.O. .....dated ..... issued for the purpose (hereinafter referred to as the **"Authority"**,

AND

2. **M/s**_____, a company/ partnership firm/ body corporate/ natural person] registered under the [insert relevant act depending upon legal constitution of the Selected Bidder/ Consortium/ date of birth of the natural person, having its registered office at_____(hereinafter referred to as the **"Developer "** which expression shall, unless it be repugnant to the context or meaning thereof, include its successors and permitted assigns) represented herein through Mr._____, its duly authorized representative, authorized vide Board Resolution dated_____;

3.[……]a bank duly registered in India, having its principal office at [.....], and represented by [……] (the **"EscrowAgent"**).

Authority, Developer and the Escrow Agent are referred to herein collectively as the **"Parties"** and individually as a**"Party"**.

WHEREAS:

A. According to the Development Agreement entered into on […..] between Authority and Developer (the **"Project"**), and the Escrow Agent shall establish an escrow account for the benefit of the Authority. Developer shall fund such account (pursuant to the terms of this Agreement), which shall serve to secure part of the Developer's payment obligations towards Authority under the Project.

B. The Escrow Agent is willing to serve as an escrow agent in accordance with the terms and conditions of this Agreement.

C. Unless otherwise defined herein, all capitalized terms shall have the meaning ascribed to them in the Project.





NOW, THEREFORE, the Parties hereto agree as follows:

1. ESCROWACCOUNT

1.1 Appointment

Authority and Developer hereby appoint the Escrow Agent to serve as the escrow agent for the purposes of this Agreement and subject to the terms of this Agreement and the Escrow Agent hereby accept this appointment.

1.2 Escrow Account

After completion of the 30 months (Construction period), Developer and the Escrow Agent shall establish an escrow bank account denominated in Indian Rupees for the benefit of Authority (the "**Escrow Account**").

1.3 Deposit

No later than one (1) month following the establishment of the Escrow Account in accordance with Article 1.2 above, Developer shall transfer an amount equivalent to Sales Revenue share quoted by the Developer **(Initial Deposit)**

Each month following the Initial Deposit, Developer shall transfer into the Escrow Account, in immediately available funds, an amount equal to the stage-wise Sale Revenue share (the "**Deposit**").

The Deposit shall be held in escrow by the Escrow Agent until it is released in accordance with the terms and conditions of this Agreement.

Failure to comply with this Article 1.3 shall be deemed a Developer Event of Default under the Development Agreement.

The Initial Deposit and the Deposits made after each Sale of Project component by the Developer shall be collectively referred to as the "**Escrow Amount**".

1.4. Identification and Separation

The Escrow Agent shall clearly identify in its records the Escrow Account as an escrow account and shall keep the funds standing to the credit of the Escrow Account segregated from and not commingled with the Escrow Agent's own funds or the funds of any of its other customers or third parties.





1.5. Fees

Developer shall bear the costs of the fees to be paid to the Escrow Agent for the establishment and management of the Escrow Account.

Any payment made by Developer under this Agreement shall be made from the following account or from such other account which Authority may designate from time to time:

Bank Account number:

BIC (SWIFT):

Address of Bank:

1.6 Escrow Account Statements

The Escrow Agent shall provide monthly statements regarding the Escrow Account to the Authority and the Developer.

2. ESCROW AMOUNT

Promptly upon the Deposit being transferred to the Escrow Account, the Escrow Agent shall send to the Authority and the Developer a notice informing them of the transfer.

The Escrow Agent shall hold the Escrow Amount in escrow for the sole benefit of Authority. The Escrow Agent shall not release any of the Escrow Amount for any person other than Authority. In particular, the Escrow Agent shall not accept any requests for withdrawals or transfers of the Deposit or the Escrow Amount from Developer for the benefit of the Developer or any third party, unless it is made in accordance with this Agreement.

The Escrow Agent shall not apply any right of set-off against the Escrow Amount, grant any lien over the Escrow Amount, or apply any fee or deduction in relation to the Escrow Amount.

At the end of each calendar year, the Escrow Agent shall transfer into an account of Developer as the Developer shall designate, any amount exceeding an amount equivalent to the Initial Deposit. Thus, the Escrow Amount at the end of each calendar year shall be equivalent to the amount of the Initial Deposit.

3. PAYMENT

Each month, the Authority shall issue an Revenue Statement and send it to the Escrow Agent along with supporting documents, with a copy to the Developer. Pursuant to the review of the supporting documents, the Escrow Agent shall pay the Authority the amount mentioned in the Revenue Statement within five (5) Business Days following the receipt of such Revenue Statement.

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Upon the expiry of the Term of the Project, Developer shall send instructions to the Escrow Agent requesting him to release and transfer any due and payable amounts to the Authority and any remaining amounts to be transferred to the Developer.

4. OBLIGATIONS OF THE ESCROWAGENT

The obligations of the Escrow Agent under this Agreement are subject to the following terms:

(a) The duties of the Escrow Agent are only as herein specifically provided, and are purely administrative in nature. The Escrow Agent shall neither be liable for, nor chargeable with knowledge of, the terms and conditions of any other agreement, instrument or document in connection herewith, including, without limitation, the Project, and shall be required to act in respect of the Escrow Amount only as provided in this Agreement. This Agreement sets forth all the obligations of the Escrow Agent with respect to any and all matters pertinent to the Escrow Account contemplated hereunder and no additional obligations of the Escrow Agent shall be implied from the terms of any other agreement. The Escrow Agent shall incur no liability in connection with the discharge of its obligations under this Agreement or in connection therewith, except such liability as may arise from the Escrow Agent's negligence, wilful misconduct or otherwise from any breach of this Agreement. Such liability, however, shall not exceed the amount of the Escrow Amount outstanding at the date of the said breach by the Escrow Agent;

(b) the Escrow Agent shall not be required to perform any acts which will violate any laws or regulations applicable in India and in the State of Maharashtra;

(c) in the event of any bankruptcy proceedings or enforcement proceedings against any of the Parties pursuant to applicable laws or regulations, the Escrow Agent shall, notwithstanding the provisions of this Agreement, act and perform in accordance with the applicable laws or regulations.

5. REPRESENTATIONS ANDWARRANTIES

Each Party represents and warrants that, as of the date hereof and in the foreseeable future:

(a) it has the authority to enter into this Agreement;

(b) this Agreement constitutes a legally valid and binding obligation, enforceable against it in accordance with its terms;

(c) its entry into and/or performance under this Agreement will not be in breach of any express or implied terms of any contract with or other obligation to any third party; and

(d) it is solvent and able to perform all of its obligations under this Agreement.

PRAFULVED INFRA PVT. LTD. NAGPUR

6. MISCELLANEOUS

6.1 Notices

Any notice or other communication to be given or made under this Agreement to the Parties shall be in writing. Except as otherwise provided in this Agreement, such notice, request or other communication shall be delivered by registered mail or facsimile to the Party (ies) at the following addresses:

NMC:[ ]

Escrow Agent:[ ]

Developer: [ ]

6.2 Entire Agreement

This Agreement constitutes the entire agreement and understanding between the Parties with respect to its subject matter (i.e. escrow arrangement) and replaces and supersedes all prior agreements, arrangements, undertakings or statements regarding such subject matter.

6.3 Amendments

No variation of or amendment to this Agreement shall be effective unless made in writing and executed by all the Parties hereto.

6.4 Assignment

Neither this Agreement nor any of the rights or obligations hereunder may be assigned by a Party without the prior written consent of the other Parties; provided, however, that Developer shall be entitled, to the extent permitted by law and as may be required under its financing documents, to assign or create liens over its rights and interests under or pursuant to this Agreement.

6.5 Severability

Whenever possible, each provision of this Agreement shall be interpreted in such a way as to be effective and valid under law, but if any provision of this Agreement is unenforceable or invalid under law, such provision shall be ineffective only to the extent of such unenforceability or invalidity, and the remaining provisions of this Agreement shall continue to be binding and in full force and effect.

PRAFULVED INFRA PVT. LTD. NAGPUR

HAFEEZ CONTRACTOR

6.6 Confidentiality

Unless otherwise determined by a competent jurisdiction, the Parties, their employees, representatives and agents shall keep the provisions of this Agreement strictly confidential and, except as may be required by law, shall make no disclosure thereof to any person, except the Parties' respective legal counsel and professional advisers, without the prior written consent of the other Parties.

6.7 Termination

This Agreement shall be automatically terminated upon the expiry of the Development Period. It may also be terminated earlier if the Authority and the Developer agree to terminate the Agreement and send a termination notice to the Escrow Agent.

6.8 Dispute Resolution Mechanism

This Agreement shall be governed by and construed in accordance with the laws of India and the laws of the State of Maharashtra.

If any dispute arises out of or in connection with this Agreement, this dispute shall not affect the Parties' duty to continue the performance of all of their non-disputed obligations.

If any dispute arises, either Party shall give notice to the other Parties of the same, where-upon the Parties shall meet promptly and in a good faith to attempt to reach an amicable settlement.

All disputes not settled amicably pursuant to Article 6.8.above shall be heard by the Courts of Maharashtra.

IN WITNESS WHEREOF, each Party has duly executed this Agreement in four (4) originals on the date set out on the first page hereof.

PRAFULVED INFRA PVT. LTD. NAGPUR

Signature Not Verified

Digitally signed by NARESH VASANTRAO BORKAR
Date: 2021.09.24 16:25:49 IST
Location: Maharashtra-MH

Additional Replies to Pre Bid Queries

Corrigendum 20 (Amended Corrigendum 4 from earlier uploaded Pre Bid Replies)

- **Agreement Article 5.1: Independent Engineer/Monitoring Agency: Point a, page 33.**

- **Existing Clause:**
  NMC has appointed M/s. Architect Hafeez Contractor, Nagpur as its Project Management Consultant for the Project and who shall be the Independent Engineer cum Monitoring Agency of NMC for the activities of the Developer and its PMC for this project. As per the agreement between NMC & the Independent Engineer M/s. Architect Hafeez Contractor, professional fees at the rate of 2% of total cost of construction and development plus additional GST (difference between prevailing rate on the date of signing original MoU in 2012 and current rate) for the Post Tender activities shall be payable by Developer to the PMC. The Bill of the NMC Independent Engineer shall be approved by NMC (Payment of NMC Independent Engineer Fees). The fees of the Independent Engineer to be paid by the Developer shall be over and above the amounts payable to NMC. The fees of the Independent Engineer shall be deposited by Developer in the NMC bank account.

- **Revised Clause to be read as:**
  NMC has appointed M/s. Architect Hafeez Contractor (AHC) Nagpur as its Project Management Consultant for the Project. AHC shall be the Independent Engineer cum Monitoring Agency of NMC for the activities of the Developer. **AHC shall monitor the Architectural Structural and MEP detail designs for quality, standards and appropriateness with rest of the Orange City Street project proposed for the entire project site. All designs, if revised from the current tender shall have to be necessarily scrutinize by AHC.**

  AHC fees for this project for the Post Tender activities shall be borne by NMC.

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ARCH. HAFEEZ CONTRACTOR MUMBAI 023.

Corrigendum 21 (Amended Corrigendum 17 from earlier uploaded Pre Bid Replies)

RFP Clause- Additional Development Page 14.

- Additional Clause added to be read as:

Revenue Sharing Mechanism for Additional Development:

Any development above the currently approved 42.83 mts shall be construed as Additional Development.

For Profit Sharing between NMC and Developer of the profits accrued from any such Additional Development shall be referred to the Strategic Committee. The Strategic Committee shall analyze the Revenue Model for the Additional Development submitted by the Developer. Based on its analysis the Strategic Committee shall devise an equitable and fair Profit Sharing mechanism and it shall be implemented by executing a Supplementary Agreement between NMC and the Developer.

Valuation of Additional Development:

For arriving at the Sale Value of any additional development, valuation shall be undertaken by the Developer through three reputed and registered Valuers. (Registered with Institution of Valuers) and based on this Valuation Report the Sale Value for additional development shall be finalized.

Structural Stability:

Any proposed Additional Development by way of increase in height or number of floors or additional slab area shall need to be appraised for its Structural Stability given that there shall be additional load on the building sub-structure.

The Structural Stability Report for the current approved plan has been obtained by NMC through a third party expert agency i.e. VNIT.

Hence for any changes proposed by the Developer in the structural drawings of the Project, the same shall have to be vetted and approved by VNIT and the sole responsibility for this shall be with the Developer.

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCH. HAFEEZ CONTRACTOR MUMBAI 400 023.

eProcurement System Government of Maharashtra

Maharashtra Tenders

Published Corrigendum Details

Date : 24-Sep-2021 04:36 PM

Print

Organisation Chain :	Nagpur Municipal Corporation Nagpur||Water Works
Tender ID :	2021_NMCN_704862_2
Tender Ref No :	1-2021/Project
Tender Title :	Develop the Modern Shopping Complex, Metro Mall (above Plinth Level) at Plot No.1 of Orange City Street Project, near Jaiprakash Nagar Metro Station on Wardha Road, Nagpur on DBFOS (Design, Built, Finance, Operate and Sale) mode.
Corrigendum Type :	Fee

Corrigendum:1

Corrigendum Title	Corrigendum Description	Published Date	Document Name	Doc Size(in KB)
EMD Fee Corrigendum	EMD Fee Corrigendum on CSD as per Corrigendum No. 7	24-Sep-2021 04:36 PM	CSDFMETRO.pdf	695.03

Tender Fee Details, [Total Fee - 20000]

Tender Fee in ₹	20000		
Fee Payable To	Nil	Fee Payable At	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	1000000	EMD through BG/ST or EMD Exemption Allowed	No
EMD Fee Type	fixed	EMD Percentage	NA
EMD Payable To	Nil	EMD Payable At	Nil

Details Before Corrigendum

Tender Fee Details, [Total Fee - 20000]

Tender Fee in ₹	20000		
Fee Payable To	Nil	Fee Payable At	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	2000000	EMD through BG/ST or EMD Exemption Allowed	No
EMD Fee Type	fixed	EMD Percentage	NA
EMD Payable To	Nil	EMD Payable At	Nil

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCH. RAFEEZ CONTRACTOR

ADVOCATE RESOLUTION FOR SALE OF PROPERTY

NAGPUR MUNICIPAL CORPORATION

OFFICE OF THE EXECUTIVE ENGINEER (PROJECT)
MAHANAGARPALIKA MARG, CIVIL LINES NAGPUR – 440 001
☎ 0712 – 2542831, ☎(Fax) 2561584
Email ID - eeprojectnmc@gmail.com

Date : 14-07-2017

No : 183 /EE/(P)

1006
15/7/17

To
Shri V.D. Kaple
Law Officer,
Nagpur Municipal Corporation
Nagpur.

Sub: Seeking Legal Opinion on NMC rights for Sale of Property under the Orange City Street Project being undertaken by NMC.

Nagpur Municipal Corporation (NMC) intends, to develop and market proposed integrated Orange City Street – Mixed Use Urban Complex, on 32 Hectare plot touching Wardha Road about 2 km from the Airport. The development shall be on EPC mode and NMC intends to undertake Sale of Property at the prevailing market rates.

The whole site is strategically divided into 10 sectors and is expected to be developed in three phases during the span of next 8 to 9 years. The ownership of the land vests with NMC.

The various project components are divided into residential, commercial and public utility facilities.

The Revenue to accrue to NMC shall be by way of Sale of Property and Annual Lease Rentals generated from the property.

In light of the above, it is requested to provide a legal opinion as to whether NMC can undertake Sale of Property at the prevailing market rates of the project components in light of the MMC Act, prevailing laws, rules and judgments.

Request you to provide the same at the earliest as the bidding process is to be launched shortly.

(Naresh V. Berkar)
Executive Engineer (Project)
N.M.C. Nagpur

Copy submitted to the :
1) Hon'ble Municipal Commissioner, NMC, Nagpur for information please.
2) Hon'ble Chief Engineer, NMC, Nagpur for information.
3) Hon'ble Superintending Engineer, NMC, Nagpur for information.

10 NIT Layout,
Satyam Apartments;
Ravi Nagar Square;
Nagpur - 440033
Cell 9423412266

J. B. KASAT
ADVOCATE

29/7/2017

By Hand / Email

To,

Municipal Commissioner,
Nagpur Municipal Corporation,
Nagpur

Subject: Legal Opinion in matter of NMC rights for Sale of Property: Communication to the Law Officer dated 14/7/2017 and 25/7/2017

Sir,

I have perused the said communications as only the said communications are forwarded to me seeking opinion.

It appears that the NMC is intending to dispose off property by sale.

That, the disposal of property by the corporation is governed by Section 79 of the MMC Act, 1949

Section 79(c) empowers the commissioner, with the sanction of the Corporation, to lease, sell or let out on hire or otherwise convey any property, movable or immovable belonging to the corporation.

As per Section 79(d) the consideration for the same shall not be less than the current market value.

Furthermore the Provisio (a) to section 79 ***no property vesting in the corporation for the purpose of any specific trust shall be leased, sold or conveyed such that the purpose for which it is held is prejudicially affected.***

As per Provisio (b) ***no property transferred to the corporation by the government, can be leased or sold or otherwise conveyed in any manner contrary to the terms of the transfer except with the prior sanction of the Appropriate Government.***

Therefore the provision of Section 79 of the MMC Act, provides for the conditions and restrictions which are to be adhered to before the municipal property can be disposed. I am therefore of the opinion that in compliance of the provisions of Section 79 of the MMC Act, the municipal property can be disposed off.

I have tried my best to search the apex court judgment precluding the Municipal Corporation from disposing off its property by sale, however I have not come across any such judgment however, there are pronouncements by the apex court that disposal of property by

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10 NIT Layout,
Satyam Apartments;
Ravi Nagar Square;
Nagpur - 440033
Cell 9423412266

J. B. KASAT
ADVOCATE

29/7/2017

the Corporation should be fair and transparent like public auction etc.

Kindly therefore examine the disposal of municipal property in the light of Section 79 of the MMC Act on case to case basis and do the needful.

I remain

Yours Truly,

J. B. Kasat

PRAFULVED INFRA PVT. LTD. NAGPUR

HAFEEZ CONTRACTOR

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TABA PAVTI

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न. भू. मा. २० म.
C. T. S. 20 m.

आखीव पत्रिका

मौजा :- सोमलवाडा

भूमापन क्रमांक	क्षेत्र	भूधारणा पद्धती	शासनाकडे भरण्याच्या महसूलाच्या अगर भाडयाच्या रकमेचा तपशील व ती पुनरीक्षणास केव्हा पात्र आहे.
६१५	६१,६००.०० चौ.मि.	फ	

सुविधाधिकार

धारक सन १९७१ --
हक्काचे मळ (उपलब्ध झाल्याप्रमाणे) नागपूर महानगर पालिका, नागपूर
पो.क्र. ३८८३७

पट्टेदार --

इतर भार --

इतर शेरे --

न.भु.अ. क्र. ३
नागपूर

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धाकर (धा) पट्टेवार (प) इतर भार (भा)	साक्षांकन
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PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 400 003.

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न. भू. मा. २० म.
C. T. S. 20 m.

आखीव पत्रिका

मौजा :- खामला

भूमापन क्रमांक	क्षेत्र	भूधारणा पद्धती	शासनाकडे भरण्याच्या महसूलाच्या अगर भाडयाच्या रकमेचा तपशील व ती पुनरीक्षणास केव्हा पात्र आहे.
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सुविधाधिकार

धारक सन १९७१-२०१७
हक्काचे मळ (उपलब्ध झाल्याप्रमाणे) नागपुर महानगर पालिका, नागपुर
फे क्र १४२४७

पट्टेदार --

इतर भार --

इतर शेरे --

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धाकर (धा) पट्टेवार (प) इतर भार (भा)	साक्षांकन
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			सत्यप्रतिलिपी	
				12/04/17

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MUMBAI 400 023.

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आखीव पत्रिका

मौजा :- भामटी

भूमापन क्रमांक	क्षेत्र	भूधारणा पद्धती	शासनाकडे भरण्याच्या महसूलाच्या अगर भाडयाच्या रकमेचा तपशील व ती पुनरीक्षणास केव्हा पात्र आहे.
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सुविधाधिकार

धारक सन ~~[illegible]~~ --२०१७

हक्काचे मळ (उपलब्ध झाल्याप्रमाणे) नागपूर महानगर पालिका, नागपूर
[illegible] २३५१९

पट्टेदार --

इतर भार --

इतर शेरे --

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धाकर (धा) पट्टेवार (प) इतर भार (भा)	साक्षांकन
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ARCHITECT HAFEEZ CONTRACTOR MUMBAI 400 023.

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आखीव पत्रिका

मौजा :- जयताळा

भूमापन क्रमांक	क्षेत्र	भूधारणा पद्धती	शासनाकडे भरण्याच्या महसूलाच्या अगर भाडयाच्या रकमेचा तपशील व ती पुनरीक्षणास केव्हा पात्र आहे.
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सुविधाधिकार

धारक सन ~~१९०१~~-२०१७
हक्काचे मळ (उपलब्ध झाल्याप्रमाणे) नागपूर महानगर पालिका, नागपूर
कु. क्र. ४४६७

पट्टेदार --

इतर भार --

न. भू. ख. क्र. ३
नागपूर

इतर शेरे --

दिनांक	व्यवहार	नोंदणी खंड व क्रमांक	नवीन धाकर (धा) पट्टेवार (प) इतर भार (भा)	साक्षांकन
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दिनांक २२/१/१७ अन्वये स्वरूप क्र. ..... २०/ [illegible]
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[illegible]

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नागपूर

PRAFULVED INFRA PVT. LTD. NAGPUR

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ताबा पावती

विषय :- नार्थ अबांझरी येथील ऑर्डीनन्स फॅक्टरीच्या मालकीच्या रेल्वे साईडींग 30.49 हे. जमिनीचा महानगर पालीका नागपूर यांना ताबा देणेबाबत.

संदर्भ :-
1) शासन ज्ञापन महसुल व वनविभाग मुबई क. 3406/यु.वो.आर. 2194/प्रक पु.676/ज-5 दि. 11.9.06
2) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 1117/06 दि. 26.9.06
3) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 1306/06 दि. 2.12.06
4) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 1406/06 दि. 28.12.06
5) मा. जिल्हाधिकारी नागपूर राजस्व यांचे पत्र क.राजस्व/जमिन/ब-1/कावी 14/07 दि. 9.01.07

ऑडीनन्स फॅक्टरीच्या मालकीचे सोबतच्या जोडलेल्या प्रपत्रात नमुद असलेल्या मौजा जैताळा, टाकली, भामटी, खामला , सोमलवाडा, येथील रेल्वे साईडींगच्या एकुण जागेपैकी 30.49 हे. आर जागेचा ताबा.

ताबा देणार
1) तहसिलदार नागपूर(श)
2) मंडळ अधिकारी नागपूर
3) तलाठी

ताबा घेणार
1)स्थावर अधिकारी
महानगर पालीका नागपूर

उक्त जागेचा ताबा घेतल्या नंतर स्थावर अधिकारी महानगर पालीका नागपूर यांना संबंधित नगर भुमापन अधिकारी नागपूर क.3 कडुन मोजणी करुन घ्यावी. व नामांतरण करुन घ्यावे

ठिकाण :- नागपूर
दिनांक:- 12/09/2006.

ताबा देणार
1) तहसिलदार नागपूर (श) Tahsildar Nagpur
2) मंडळ निरिक्षक नागपूर
3) तलाठी (जैताळा,भामटी,सोमलवाडा)
4) तलाठी (टाकळी) तलाठी
5) तलाठी (खामला) त. सा. क्र. ...6.....
तहसिल कार्यालय नागपूर (शहर)

ताबा घेणार
1) स्थावर अधिकारी
महानगर पालीका नागपूर
स्थावराधिकारी
नागपूर महानगरपालिका

PRAFULVED INFRA PVT. LTD. NAGPUR

ARCHITECT HAFEEZ CONTRACTOR MUMBAI 400 023.

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Volume I:

REQUEST FOR PROPOSAL

(RFP) DOCUMENT FOR

DESIGN, BUILD, FINANCE, OPERATE and SALE OF MULTI UTILITY SHOPPING MALL WITH OFFICE SPACES at NMC ORANGE CITY SHOPPING MALL site at NAGPUR (Next to Jaiprakash Nagar Metro Station)

Project Proponent:

NAGPUR
MUNICIPAL CORPORATION

Issued by:
Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg, Nagpur.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com

July 2021

RFP No:.....

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PRAFULVED INFRA PVT. LTD. NAGPUR

NOTICE INVITING REQUEST FOR PROPOSAL

Nagpur is administered by the Nagpur Municipal Corporation (NMC), which is a democratically elected civic governing body.

NMC has decided to develop the Orange City Street Project at Nagpur on the stretch starting from Wardha Road up to Jaitala, Nagpur.

Currently NMC proposes to develop as a component of the Orange City Street Project, a Multi Utility Shopping Mall and Office spaces with requisite parking at the NMC ORANGE CITY MALL site at Nagpur (Next to Jaiprakash Nagar Metro Station).

The designs and planning of the said a Multi Utility Shopping Mall have been finalized by NMC.
The work of the said Multi Utility Shopping Mall has already commenced and has been completed up to plinth level through its contractor Mahametro.

NMC now desires to complete the balance construction (above plinth level) of the project on Design-Build-Finance-Operate and Sale (DBFOS) basis under which the Developer can propose only a Structural Design & Internal Arrangement and Finance, Construct, Maintain and undertake Marketing & Sale of the various components of the project.

For further details please contact:

Office of the Executive Engineer (Project),
Civil Lines, Mahanagar Palika Marg, Nagpur.
Telephone: 0712-254283
Email: eeprojectnmc@gmail.com





Schedule of Bidding Process

Sr. No.	Event Description	Date
1.	RFP Sale	26/08/2021 to 24/09/2021 till 5.00 p.m.
2.	Last Date of submission of written queries by prospective bidders	08/09/2021 till 3.00 p.m.
3.	Pre-Bid Meeting & Place of Pre-Bid Meeting	08/09/2021 at 4.00 p.m. (Office of the Chief Engineer, NMC, Civil Lines, Nagpur)
4.	NMC"s response to written queries raised and issuance of corrigendum/addenda, if any.	13/09/2021 at 5.00 p.m
5.	RFP Application Submission End Date	24/09/2021 till 5.00 p.m.
6.	Hard Copy submission Date	27/09/2021 till 5.00 p.m.
7.	Technical Bid Opening Date (if possible)	27/09/2021 till 5.00 p.m.
8.	Technical Presentation Date	As per decided by Hon'ble Commissioner, NMC

Proposal Data Sheet

Sr. No.	Key Information	Details
1.	**Name of the Project**	Design, Build, Finance, Operate and Sale of Multi Utility Shopping and Office Spaces at NMC ORANGE CITY MALL site at NAGPUR (Next to Jaiprakash Nagar Metro Station).
2.	**Location of the Project**	Jaiprakash Nagar, Radisson Square.
3.	**Name of the Authority**	Nagpur Municipal Corporation
4.	**Earnest Money Deposit /Bid Security**	Rs 20,00,000/- (Rupees Twenty Lacs only).
5.	**Tender Fees (Non-Refundable)**	Rs 20,000/- (Rupees Twenty Thousand only)
6.	**Bidding Parameter**	Maximum Lump-sum Financial Offer to be shared with NMC from Sale Proceeds of the various components of the Project as spelt out elsewhere in this document and the Development Agreement.
7.	**Performance Security**	5% of Construction Cost as spelt out elsewhere in this document
8.	**Contact Person**	Executive Engineer (Project), NMC.

1. DISCLAIMER

The information contained in this Request for Proposal document (the "RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the Authority or any of their employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is neither an offer nor invitation by the Authority to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in preparing their proposal pursuant to this RFP (the "Bid"). This RFP includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law.

The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Authority, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Bidding Process.

The Authority also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP.

The Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that the Authority is bound to select a Bidder orto appoint the Agency, as the case may be, for the Project and the Authority reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and the Authority shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardlessof the conduct or outcome of the Bidding Process.

2. Abbreviations

Application	As defined in Clause 1.1.2
Application Due Date	As defined in Clause 3.1.6
Application Validity Period	As defined in Clause 4.9.1
Associate	As defined in Clause 4.2.6
NMC	As defined in Clause 3.1.1
Bid Security	As defined in Clause 4.22.1
Bidder	As defined inClause3.2.1
Bidding Documents	As defined in Clause3.2.3
Bidding Process	As defined in Clause3.2.1
BoT	Build Operate Transfer
BOLT	Build, Operate, Lease and Transfer
BOO	Build Operate and Own
Combined Net Worth	As defined inClause5.2.2(a)
Company	means the company acting as the Developer under the Development Agreement
Construction Period	shall mean in the manner prescribed under the Development Agreement
Developer	As defined in Clause3.1.2
Development agreement	As defined in Clause 3.1.2

Conflict of Interest	As defined inClause4.2.1(c)
Consortium	As defined inClause4.2.1(a)
DBFOS:	Design, Build, Finance, Operate and Sales, Operate for this Project shall mean to operate/maintain the various components of the Project till handover of the same to the respective buyers".
Equity	means the sum expressed in IndianRupees representing the paid up equity share capital of the proposed SPV formeeting the equity component of the Total Construction Cost, and shall for the purposes of Development Agreement include convertible instruments or other similar forms of capital, which shall compulsorily convert into equity share capital of the Company, and any interest-free funds advanced by any shareholder of the Company for meeting such equity component
Financial Capacity	As defined in Clause 5.1.1(b)
Financing Documents	The set of documents constituting the agreement between the Developer and the Lender for the purpose of providing debt financing to the Project
Government	of India or Government Maharashtra
H1 Bidder	As defined in Clause 6.1.1
Consortium Agreement	As defined in Clause 4.2.3(g)
Lead Member	As defined in Clause 4.2.3(c)
LOA	Letter of Award
Member	Member of a Consortium
NMC	Nagpur Municipal Corporation

Net Worth	As defined in Clause 5.2.1
Other Background Documents	This includes the Development Control Rules (DCR) for Nagpur City & its updations, State Government Gazette Notifications and any other documents if subsequently issued during the Bidding Process
Performance Security	As defined in the Development Agreement
PPP	As defined in Clause 3.1.1
Project	means the project for development of the Multi Utility Shopping Mall with Office Spaces and requisite Parking through DBFOS.
Indicative Project Facilities	means all the amenities and facilities as mentioned in the Design Proposal including: (i) Hypermarkets & Anchor Shops (ii) Showrooms & Shops (iii) Commercial Offices & Conference Hall (iv) Recreational Spaces (v) Multiplex/Miniplex (vi) Requisite Parking
Qualification	As defined in Clause 3.2.2
Qualification Application	As defined in Clause 3.2.2
Qualified Bidders	As defined in Clause 3.2.2
Re. or Rs. or INR	Indian Rupee
RFP	Request for Proposal
Similar Projects	As defined in Clause 5.1.2
SPV	As defined in Clause 4.2.3
Technical Capacity	As defined in Clause 5.1.1

The words and expressions beginning with capital letters and defined in this document shall, unless repugnant to the context, have the meaning ascribed thereto herein.

3. INTRODUCTION

3.1 Background

3.1.1

Nagpur is administered by the Nagpur Municipal Corporation (NMC),which is a democratically elected civic governing body.

NMC has decided to develop the Orange City Street Project at Nagpur on the stretchof starting from Wardha Road up to Jaitala, Nagpur.

Presently NMC proposes to develop as a component of the Orange City Street Project,a Multi Utility Shopping Mall and Office spaces with requisite parking at the NMC ORANGE CITY MALL site at Nagpur (Next to Jaiprakash Nagar Metro Station).

The planning and designs of the said Multi Utility Shopping Mall have been finalizedby NMC.
The work of the said Multi Utility Shopping Mall has already commenced and has been completed up to plinth level by NMC through its contractor Mahametro.

NMC now desires to complete the balance construction (above plinth level) of the project on Design-Build-Finance-Operate and Sale (DBFOS) basis under which the Developer can propose only a Structural Design & Internal Arrangement and Finance, Construct, Maintain and undertake Sale of the various components of the project.

- Total construction area is 1.74 lacs sq. ft. as per the present proposed planning.
- Total built up area is 1.14 lacs sq. ft. as per the present proposed planning.

NMC has appointed M/s Architect Hafeeez Contractor as the Project Management Consultant (PMC) for the entire Orange Street Project and accordingly the Design & Architectural Planning for the NMC Orange City Mall project has been undertaken by the PMC. The said Design & Architectural Planning shall be final and binding on the Developer for development of this Project, Developer shall have liberty only make changes in the Structural Design & Internal Arrangement and such changes shall be undertaken only after approval of NMC and its PMC. The revised structural changes if any shall be vetted by an independent autonomous institution such as VNIT or similar such institutions.

The Multi Utility Shopping Mall is proposed to be integrated with the Jaiprakash Nagar Metro Station and the Metro station would have connectivity with the Multi Utility Shopping Mall on its fourth floor. This would ensure footfalls for the Multi Utility Shopping Mall.

NMC now desires to complete the balance construction (above plinth level) of the project on Design-Build-Finance-Operate and Sale (DBFOS) basis under which the Developer can propose a Structural Design & Internal Arrangement and Finance, Construct, Maintain and undertake Sale of the various components of the project, aspart of its developmental plans for the city.

The prospective Bidder shall be selected under a Single Stage Two Envelope bidding process and a technically qualified bidder offering Maximum Lump-sum Financial Offer to NMC from the Sale Proceeds of the various components of the Project as spelt out elsewhere in this document, the Development Agreement and as per the procedures described in this RFP, shall be the selected bidder.

This Project will help the people of the region i.e. the existing citizens of the region in the vicinity to have access to world class yet affordable shopping, office space, dining and recreation experience in the commercial heart of the city.

NMC intends to develop the Project (hereinafter defined) on Public-Private Partnership (the "**PPP**") basis under the DBFOS model and has, thus, decided to carry out the Domestic Competitive Bidding Process for selection of an entity to whom the Project may be awarded.

3.1.2 Constitution of Bidder

A prospective bidder can be a Company under Companies Act, 1956/2013 or Partnership Firm formed under the Partnership Act 1932 or an LLP under the LLP Act 2008 or a Proprietorship firm registered under the relevant Act in India or a government-owned entity.

The selected bidder **("Developer")** shall be responsible for the, designing (Structural Design & Internal Arrangement within the Mall only on approval of NMC), engineering, financing, procurement, construction, maintenance, marketing and sales of the various Project components under and in accordance with the provisions of a long-term joint development agreement (the "**Development agreement**") to be entered into between the Developer and the NMC in the form provided by NMC as part of the Bidding Documents pursuant hereto.





3.1.3 Scope of work

NMC has already completed the construction of the Project up to plinth level.

The scope of work will broadly include financing, designing (Structural Design & Internal Arrangement within the Mall), construction of balance building, maintenance, marketing and profitable sales of various components of the Project.

The Developer shall construct the Multi Utility Shopping Mall with Office spaces and requisite Parking on a total area of approximately 3300 square meters within a period of 18 (Eighteen) months for the entire building. The Developer shall have the development and sales rights on the Project for a period of 60 (Sixty) months including the construction period of 18 months from the date of signing of the Development Agreement. For any extension of time beyond the stipulated 60 months, the decision shall be solely with NMC and the decision of NMC in this regard shall be final and binding without incurring any cost or liabilities on NMC.

Post signing of the Development Agreement with NMC and on issue of Commencement Certificate from NMC, the Developer can market the project and undertake the Sales of the various components of the said Project.

The Developer shall share the details of the prospective buyers such as their Financial Strength, purpose for the purchase of the property etc with NMC before execution of the Sale Agreement.

The Sale Agreement with prospective buyers shall be a tripartite agreement with NMC, Developer and the buyer as the three parties.

The ownership of the project land shall vest with NMC at all times.

Objectives of NMC for Development of the NMC Orange City Mall Project:-

The proposed development by the bidder shall have to achieve certain objectives.

The listed points highlight the basic development concepts.

- ✓ World Class Infrastructure Development in the city.
- ✓ Need for Commercial & Office Space in the Region aligning with the Nagpur Metro project.
- ✓ Sustainable and environmentally friendly development.
- ✓ Optimum utilization of idle land asset thereby improving the financial position of NMC.

The project comprises the Financing, Construction, Maintenance, Marketing and Sales of the various components of the Multi Utility Shopping Mall with Office spaces and requisite Parking.

The Developer should be able to generate revenues, based on his independent risk analysis, from the commercial sale of the various components of the Mall in compliance with the applicable law.

The Developer would have the flexibility to sell the various components of the Mall after necessary approval from NMC. However, the Developer shall not have the right to lease out the facility to third party / any person.

Parking and Advertisement:

The planning for the parking at the Project Site shall be strictly in consonance with the DCR (as modified) on the date of approval of the plans.

As per the present planning, parking is proposed on the lower & upper basements and part of the ground floor of the proposed building. It should be the endeavor of the Developer to maximize the parking area.

NMC envisages that the lower basement parking shall be handed over to the buyers of the Project components as per the allocation mentioned in the DCR as modified from time to time.

NMC envisages that the parking on the upper basement and the ground floor shall be operated commercially and the Developer shall have exclusive rights to earn revenues from such commercial parking facilities for seven years from the date of signing of the Development Agreement. After seven years the right to lease & earn parking and advertisement revenues shall vest exclusively with NMC.

NMC desires that the Developer should plan for development of mechanical parking facilities at the Project Site.

Similarly the Developer can identify and enlist the locations & spaces suitable for display of commercial advertisements in consonance with the present planning and in consultation with M/s Architect Hafeez Contractor.

The location & spaces shall be compliant with rules and regulations prevalent at that point of time. The area and list shall be submitted and got approved from the competent authority and shall be notified to NMC.

The Operation & Maintenance of the entire Project including the parking shall be the responsibility of the Developer till formation of the society and thereafter it shall be the responsibility of the buyers themselves.

The Operation & Maintenance of the commercial parking area as long as it remains with the Developer shall be the responsibility of the Developer for seven years from the date of signing of the Development Agreement thereafter it shall be handed over to NMC.

The right to lease and earn Advertisement Revenue from the Project for seven years from the date of signing of the Development Agreement shall be with the Developer and after seven years it shall be exclusive right of NMC to lease and earn revenue from the advertisement from the Project facilities.

The Developer can explore and utilize the additional revenue earning areas including the rooftop of the proposed building for commercial purpose such as setting up of rooftop restaurant or some other facilities.

Additional Development

Any additional development such as setting up of rooftop restaurant or some other facilities shall be subject to approval from NMC. On approval from NMC for such additional development, NMC may execute a supplementary agreement with the Developer for such additional development.
The Developer shall have exclusive rights to earn revenue from such additional development for seven years from the date of signing of the Development Agreement and after seven years it shall be exclusive right of NMC to lease/operate and earn revenue from such additional facilities.

The Developer would:

- Design (Structural Design & Internal Arrangement within the Mall), finance, construct and develop the NMC Orange City Mall at the Project Site and undertake marketing and sales of the Project. The said Design & Architectural Planning undertaken and approved by NMC PMC shall be final and binding on the Developer for development of this Project. However the Developer shall have liberty only to undertake changes in the Structural Design & Internal Arrangements. The revised structural changes, if any shall be vetted by an independent autonomous institution such as VNIT or such similar institutions.
- In case of any additional development, the said Design & Architectural Planning shall be submitted to NMC and its PMC for approval and such additional designs and planning shall be within the design framework of the original Project. The Developer shall also submit to NMC for its approval, the Revenue Model for any such additional development
- Undertake the Sales of the various components of the Mall and demand, collect, retain and appropriate sales revenues.
- Disburse to NMC the Upfront Premium and the quoted Financial Offer over and above the minimum amount as per the payment schedule described in the Development Agreement.
- Deploy adequate number of Staff/O&M agency for proper operation and maintenance of the Mall till the entire Project is handed over to the buyers" and the society is formed;

- To undertake all activities for conforming to RERA compliance including maintaining the books of accounts and compulsory registration with MAHARERA.
- Make provision for development of an Electric Charging Station within the Project facilities.
- The said Project is to be integrated with the Jaiprakash Nagar Metro Station and hence a constructed space on the fourth floor of the said Multi Utility Complex needs to be earmarked and handed over to NMC for a ticketing office of Metro Station. The Developer shall coordinate with Mahametro for finalizing the location, dimensions and other technical details of the proposed ticketing office. The Developer shall obtain Mahametro approval for the drawings and specifications of the proposed ticketing office. On final approval from Mahametro, the same shall be submitted to NMC. On completion of construction of the ticketing office, the same shall be handed over to NMC for further handover, operation & maintenance to Mahametro.
- Would be responsible for attending and rectifying any Project/construction related grievances of the buyers" for a period of 10 years from the date of signing of Sale Agreement and handing over of property.
- Would be responsible for attending to any grievances arising during construction as a result of changes in the structural plan of the Project.

Permitted Development at Site:

The proposed Project shall adhere to the following guidelines:

1. The Successful Bidder shall strictly adhere to the following:

    - Applicable DCR for the Project Site on the date of submission of plans to the authority.
    - Floor Space Index (FSI) limits including any enhancements;
    - Obtaining and adopting the statutory requirements including but not limited to Fire, Health, Environment, if required.
    - Seek NMC approval in case of any material changes in the Project Designs already finalized by NMC with its PMC. In case of any changes in designs already finalized, it shall be the responsibility of the Developer to get such revised drawings approved from the Town Planning department of NMC.
    - Seek NMC approval for the Project DPR and its revisions/up-dations, if any.
    - Any other development with the prior written approval of NMC.
    - Technical Specifications shall be as per the Volume III of this bidding document and when not specifically mentioned then the prevailing specifications of PWD, Government of Maharashtra, CPWD, Government of India and Standard Codes such as Bureau of Indian Standards, other Indian Standards and good engineering practices shall prevail.

- Seek approval from NMC and obtain it"s No Objection Certificate before undertaking sale of any component of the Project.
- Seek NMC approval along with the Revenue Sharing scheme before undertaking any additional development at the site over and above the currently envisaged development scope.
- Developer shall during its technical presentation submit to NMC its Revenue Model for sharing of revenue with NMC for any additional development.

2. The development mix shall not include educational institutions, industrial set-ups and warehouses.

3. The Successful Bidder must necessarily develop and market the Project as a constructed Multi Utility Shopping Mall with Office spaces and requisite Parking. The Successful Bidder cannot develop and market the Project or a portion of the Project as plotted development.

4. It is desired by NMC to have ample parking at the facility and hence it should be the endeavor of the Developer to have ample parking facility for the Project preferably mechanical parking.

5. The Successful Bidder may undertake Construction Works by itself or through a notified Contractor possessing requisite technical, financial and managerial expertise / capability; but in either case, the Successful Bidder shall remain solely responsible to meet specifications mentioned under the Development agreement.

6. The Successful Bidder shall perform and fulfill all other obligations mentioned in the Development Agreement and to undertake all other activities, works and things incidental thereto or necessary for the performance.

7. The benefit of any additional FSI in future in light of the Project being in the Metro Corridor and as per the Transit Oriented Development (ToD) policy shall accrue equally to NMC and the Developer.

   In case of ToD being triggered, the Developer shall be entitled for additional development area. The Developer shall have to adhere to the FSIcalculations as undertaken by NMC.

   The revenue earned (benefit) from such additional development shall be shared equally between NMC and the Developer. Such additional revenue shall be over and above the amount quoted by the successful bidder.

8. The construction cost as estimated by NMC and its PMC is approx. Rs. **41.06 Crores.** The Project Cost is inclusive of GST, lifts and all other peripheral development. The Project Cost is only indicative and may change

depending on any changes in the Drawings. The Project Cost to be adopted shall be as per the Financing Agreements and Bankable DPR.

9. The Construction Period of 18 months from the Appointed Date, as indicated in the Development Agreement, unless terminated earlier.

10. In the event that completion of Project construction does not occur on or before a period of Eighteen Months from the Appointed Date for any reasons attributable to Developer, NMC may allow a grace period ofmaximum 60 days. Beyond which NMC shall be free to take decision regarding the continuation or termination of the Development Agreement.

11. Green Building Certification
NMC envisages the proposed facility as a Green building with smartfeatures and the bidder shall get it certified from relevant Indian authorities" viz. IGBC, GRIHA etc.

12. Provision for generation of power through use of Solar panels should be planned in the Facility.

The Development Agreement sets forth the detailed terms and conditions for grant of the Project to the Developer, including the scope of the Developer"s obligation.

3.1.5. The statements and explanations contained in this RFP are intended to provide a better understanding to the Bidders about the subject matter of this RFP and shall not be construed or interpreted as limiting in any way or manner the scope of work and obligations of the Developer set forth in the Development agreement or the NMC"s rights to amend, alter, change, supplement or clarify the scope of work, the development & sales rights to be awarded pursuant to this RFP or the terms thereof or herein contained. Consequently, any omissions, conflicts or contradictions in the Bidding Documents are to be noted, interpreted and applied appropriately to give effect to this intent, and noclaims on that account shall be entertained by the NMC.

3.1.6. NMC shall receive Applications pursuant to this RFP in accordance with the terms set forth herein as modified, altered, amended and clarified from time to time by the NMC, and all Applications shall be prepared and submitted in accordance with such terms on or before the date specified in Notice Inviting Request for Proposal for submission of Application (the "**Application Due Date**").

3.1.7 The Construction Period is predetermined at 18 months, as indicated in the Development Agreement. The Developer shall be entitled to market and undertake sales of the entire built up area of the Project. Rights for anyadditional development at the site shall vest exclusively with NMC.

3.1.8 The sales agreement with prospective buyers shall be a tripartite agreement with the NMC, Developer and the buyer as the three parties.

3.1.9 The Developer shall appoint a facility management firm to maintain andmanage the proposed facility with the approval from NMC, for proper operation and maintenance of the Mall till the complete Project is handed over to the buyers" and a society is formed.

The sole responsibility for the payment of the maintenance charges for the Mall facility shall be with the Developer. NMC shall not be liable to pay any maintenance charges for the Mall facility including the Common Areas. The Developer shall be responsible for the marketing and sales of the built up space.

3.1.10 Designing & Specification

The Bidder can propose a Design (only Structural Design & Internal Arrangement within the Mall only on approval of NMC) & Specification which it feels is more viable and aesthetically suitable for the project **(the "Proposed Design")** but such design specifications in any case shall not be less than as specified in the Design Proposal of NMC.
Any material change in the already approved Design & Specifications shall not be permitted.
In case of changes in the Structural Design & Internal Arrangement within the Mall the Developer shall be responsible for getting approved such revised drawings & specification from the Town Planning Department of NMC.

M/s Architect Hafeez Contractor shall continue to be the Independent Engineer for the Project on behalf of NMC. The said Independent Engineer shall be the sole approving authority for any changes in the already approved Design & Specification for the Project.

However, the Bidder needs to ensure the following:

a) The Proposed Design shall be as per the Development Control Regulations (DCR) of Nagpur Municipal Corporation and Specification shall be as per National Building Code (NBC).

For further detailed scope refer the Design Proposal of NMC provided as Volume 3 of the Bidding Documents.

Notwithstanding anything contained in this RFP, the NMC reserves the Right to accept or reject any Design & Specification at any time without any liability or any obligation for such acceptance or rejection and without assigning any reasons thereof.

3.2 Brief description of the Bidding Process.

3.2.1 Bidding through E-Tendering System:

Bid shall be submitted electronically /online through the Procurement Portal website **www.mahatenders.gov.in.** Detailed guidelines for viewing bids and submission of online bids are given on the website. The Invitation for Bids under NMC is published on this website. Any citizen or prospective bidder canlogon to this website and view the Invitation for Bids and can view the details ofworks for which bids are invited. In order to submit their Bids through the Procurement Portal, Bidders are required to be enrolled/ registered on the Procurement Portal, for which purpose they are required to have enrolment/registration in the website and should have a valid digital signature certificate in the form of smart card/e- token obtained from any authorized certifying agencies. For detail information of smart card /e-token bidders shall visit link <Information About DSC> at right hand corner of Procurement Portal website www.mahatenders.gov.in.

The bidder should register on the website **www.mahatenders.gov.in** using the relevant option available. Then the Digital Signature registration has to be done with the e-token, after logging into the site. After this, the bidder can login the site through the secured login by entering the password of the e-token and the user id/ password chosen during registration.

After getting all the Volumes of the Bidding Documents, the Bidder should go through them carefully and then submit the documents as required; otherwise, its bid will be rejected.

The completed bid comprising of all requisite documents, should be uploaded on the website given above through e-tendering along with scanned copies of requisite certificates as are mentioned in different sections in this bidding document.

The tender documents to be submitted online in Two bid system i.e. „A" containing Technical bid and „B" containing Financial bid, the Financial bid shall be opened only if necessary documents are found in technical bid and after the Technical evaluation is completed. The due date of opening of financial bid shall be communicated to the prospective Bidders or their authorized agents.

Bidder shall submit the Bid Document cost and EMD online through RTGS/NEFT.

Bidder shall also submit online scanned copies of all other documents duly attested, specifically mentioned in Qualification Criteria.

The bidder shall quote its offer as the Maximum Lump-sum Financial Offer to NMC from the Sale proceeds of the various components of the Project.

The bidder shall also pay to NMC the Upfront Premium as indicated elsewhere in this document.

The financial offer to be submitted in the financial bid format online as well as in the hard copy submission. In case of any discrepancy in the online financial bid format, the hard copy of the financial bid shall be considered as final.

The Maximum Lump-sum Financial Offer to be shared with NMC must be quoted in Rs figures as well as in words as specified in the financial bid.

The bidders are expected to fill their tender carefully and scrutinize the same before sending on online (https://mahatenders.gov.in) No variation on any grounds such as mistakes, or misunderstanding will be allowed after the tender is opened, recommended, or accepted.

In addition to online submission, the bidder is required to submit the hard copy of the technical documents as specified at clause 5.4. They should also submit copy of the downloaded RFP Document in technical documents duly signed by the authorized signatory as a mark of unconditional acceptance of the terms and conditions of the RFP Document, Development Agreement, Design Proposal etc.

For hard copy submission, the technical documents shall be sealed in two separate envelopes indicating the contents there in i.e. Technical and Financial.

These two envelopes should be placed in a single Envelope named as **"Proposal for NMC Orange City Mall"** indicating the name of the work and name of the agency.

This hard copy of the RFP proposal is required to be submitted within two days after the online submission, in the office of Executive Engineer (Project) NMC. The hard copy should not be submitted before the online submission.

3.2.2. NMC has decided to adopt a single stage two envelope process (the "**Bidding Process**") for selection of the bidder for award of the Project. It involves:

a. Qualification (the "**Qualification**") of the interested parties/consortia (the "**Bidder**", which expression shall, unless repugnant to the context, include the Members of the Consortium) who submit a qualification application (the "**Qualification Application**") in accordance with the Annexure A - Qualification Application. Bidders meeting the Technical and Financial Capacity as set out in Clause 5.1.1 will be short-listed (the **"Technically Qualified Bidders"**) and will be entitled for opening of the Financial Proposal.

b. Evaluation of the financial application (the "**Financial Proposal**") of the Qualified Bidders made in accordance with **Annexure C - Financial Proposal**.

3.2.3 The **"Bidding Documents"** includes this RFP, Development Agreement and the approved Design Proposal. The aforesaid documents and any addenda issued subsequent to this RFP Document will also form a part of the Bidding Documents.

3.2.4 The Bidding Documents will be available online at www.mahatenders.gov.in ("Procurement Portal"). To participate in the Bidding, Bidders will be required to pay a **non-refundable fee of Rs. 20,000/- (Rupees Twenty Thousand Only)** as the fees toward the cost of the Bidding Documents through the online payment gateway available Electronic Tendering System. For the list of options for making online payments, the bidders are advised to visit the link E-Payment Options available on the web site mahatenders.gov.in.

3.2.5 Bidder will be required to deposit along with the Application a Bid Security as per the Clause 4.22.

3.2.6 Bidders are advised to examine the Project site in greater detail, and to carry out, at their cost, such studies as may be required for submitting their respective Applications together with all required documents towards award of the concession for the Project.

3.2.7 The Project shall be awarded to the Bidder, who is the Technically Qualified Bidder and who has quoted the Maximum Lump-sum Financial Offer with NMC from the Sale proceeds of the various components of the Multi Utility Shopping Mall with Offices and requisite parking.

3.2.8 Subsequent to this process, the Letter of Award (LoA) would be issued to the Successful Bidder by the NMC. Within 7 (seven) days from the date of issue of the LoA, the Successful Bidder shall send an acknowledgement agreeing to comply with the conditions set out therein. NMC shall promptly notify other Bidders that their Financial Proposals have been unsuccessful and their Bid Security shall be returned within 60 days without interest on the signing of the Development Agreement with the Successful Bidder. The Successful Bidder shall have to enter into an Development Agreement within 7 (seven) days from date of issue of the LoA.





The Successful Bidder on the date of signing of the Agreement shall:

1. Furnish Performance Security by way of irrevocable Bank Guarantee issued by a Nationalised Bank located in Nagpur in favour of NMC, as required under the Development Agreement. The Performance Security shall be for a period of 60 (sixty) months or till the subsistence of the Development Agreement, whichever is later. The Developer can submit the Bank Guarantee for one year at a time but it shall be the responsibility of the Developer to renew the same annually and NMC shall not be responsible for the same in any way. The Bank Guarantee submitted shall have an clause for claim period of additional one year as per standard practice.

   Failure of the Successful Bidder to comply with the requirements mentioned in the above paragraph shall constitute sufficient grounds for theannulment of the LoA, and forfeiture of the Bid Security.

   In such an event, the NMC reserves the right to:

1. Either invite the next best Bidder to match the Bid submitted by the Successful Bidder
   OR
2. Call for fresh Bids
   OR
3. Take any such measure as may be deemed fit in the sole discretion of the NMC, including annulment of the bidding process.

3.2.9 Other details of the process to be followed during the Bidding Process and the terms thereof are spelt out in this RFP.

4. INSTRUCTIONS TO BIDDERS

A. General

4.1 Scope of Application

4.1.1 NMC desires to receive the Qualification Application and Financial Bid.

4.2 Eligibility of Bidders

4.2.1 For determining the eligibility of Bidders (the "**Eligible Bidders**") hereunder, the following shall apply:

a. The Bidder for qualification may be a single entity or a group of entities (the "**Consortium**"), coming together to implement the Project. However, no Bidder applying individually or as a member of a Consortium, as the case may be, can be member of another Bidder. A Bidder violating the above condition shall be liable for disqualification and the NMC shall be entitled to forfeit and appropriate the Bid Security. The term Bidder used herein would apply to both a single entity and a Consortium.

b. A Bidder may be a natural person, private entity, government-owned entity or any combination of them with a formal intent to enter into an agreement or under an existing agreement to form a Consortium. A Consortium shall be eligible for consideration subject to the conditions set out in Clause 4.2.2 below

c. A Bidder shall not have a conflict of interest (the "**Conflict of Interest**") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification of the Bidder, the NMC shall be entitled to forfeit and appropriate the Bid Security, as the case may be, as mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the NMC including consideration of such Bidder"s proposal (the "**Damage**") without prejudice to any other right or remedy that may be available to the NMC under the Bidding Documents and/or the Development agreement or otherwise. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:

i.) the Bidder, its Member or Associate (or any constituent thereof) and anyother Bidder, its Member or any Associate thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder, its Member or an Associate thereof (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the subscribed and paid up share capitalof such Bidder, Member or Associate, as the case may be) in the other Bidder, its Member or Associate, is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply, indirect shareholding held

through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or

ii.) a constituent of such Bidder is also a constituent of another Bidder; or

iii.) such Bidder, its Member or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, its Member or Associate, or has provided any such subsidy, grant, concessional loan or subordinateddebt to any other Bidder, its Member or any Associate thereof; or

iv.) such Bidder has the same legal representative for purposes of this Application as any other Bidder; or

v.) such Bidder, or any Associate thereof, has a relationship with another Bidder, or any Associate thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other"s" information about, or to influence the Application of either or each other; or

vi.) such Bidder or any Associate thereof has participated as a consultant to the NMC in the preparation of any documents, design or technical specifications of the Project.

d. A Bidder shall be liable for disqualification if any legal, financial or technical adviser of the NMC in relation to the Project is engaged by the Bidder, its Member or any Associate thereof, as the case may be, in any manner for matters related to or incidental to the Project. For the avoidance of doubt, this disqualification shall not apply where such adviser was engaged by the Bidder, its Member or Associate in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of this RFP. Nor will this disqualification apply where such adviser is engaged after a period of 1 (one) month from the date of announcement of Highest Ranked Bidder.

Explanation:

In case a Bidder is a Consortium, then the term Bidder as used in this Clause, shall include each Member of such Consortium.

4.2.2. The Bidder should submit a Power of Attorney as per the format at Appendix A4, authorizing the signatory of the Application to commit the Bidder. In case of a Consortium, the Members should submit a Power of Attorney in favor of the Lead Member as per format at Appendix A5.

4.2.3. The selected Bidder shall be required to form a Special Purpose Vehicle (the "**SPV**"), incorporated under the Indian Companies Act, 1956/2013/ Partnership Act 1932 / LLP Act 2008/Maharashtra Shops & Establishments Act 1948/2018, to execute the Development Agreement and implement the Project.

In case the Bidder is a Consortium, it shall, in addition to forming an SPV, comply with the following additional requirements:

a. Number of members in a consortium shall not exceed 2 (two); i.e. Lead Member plus one.

b. Subject to the provisions of sub-clause (a) above, the Qualification Application shall contain the information required for each member of the Consortium;

c. Members of the Consortium shall nominate one member as the lead member (the "**Lead Member**"), who shall subscribe at least 51% (fifty oneper cent) or more of the Equity of the SPV till completion of the Sales of the complete Project. The nomination(s) shall be supported by a Power of Attorney, as per the format in Appendix A5, signed by all the other members of the Consortium;

d. Non Lead Member of the Consortium shall subscribe at least 26% (twenty six per cent) or more of the Equity of the SPV till completion of the Sales of the complete Project.

e. The Application should include a brief description of the roles and responsibilities of individual members, particularly with reference to financial, technical and O&M obligations;

f. An individual Bidder cannot at the same time be member of a Consortium submitting Application. Further, a member of a particular Bidder Consortium cannot be member of any other Bidder Consortium submitting Application;

g. The members of a Consortium shall form a SPV to execute the Project, if awarded to the Consortium;

h. Members of the Consortium shall enter into a binding consortium agreement, substantially in the form specified at Appendix A6 (the "**Consortium Agreement**"), for the purpose of making the Application.

The Consortium Agreement, to be submitted along with the Application, shall, *inter alia*:

i) Convey the intent to form an SPV with shareholding/ ownership equity commitment(s) in accordance with this RFP, which would enter into the Development Agreement and subsequently perform all the obligations of the Developer in terms of the Development Agreement, in case the Project is awarded to the Consortium;

ii) Clearly outline the proposed roles and responsibilities, if any, of each member;

iii) Commit the minimum equity stake to be held by each member;

iv) Commit that the Lead Member, whose experience will be evaluated for the purposes of this RFP, shall subscribe to minimum 51% (fifty one per cent) or more of the Equity of the SPV till completion of the Sales of the complete Project

v) Commit that other member of the Consortium (i.e. except the Lead Member), whose experience will be evaluated for the purposes of this RFP, shall subscribe to minimum 26% (twenty six per cent) or more of Equity of the SPV till completion of the Sales of the complete Project

vi) Include a statement to the effect that all members of the Consortium shall be liable jointly and severally for all obligations of the Developer in relation to the Project until the expiry of the Construction period of 18 (eighteen) months.

vii) Except as provided under this RFP and the Bidding Documents, there shall not be any amendment to the Consortium Agreement without the prior written consent of the NMC.

4.2.4. Any entity which has been barred by the Central/ State Government, or any entity controlled by it, from participating in any project (PPP/BOT or otherwise), and the bar subsists as on the date of Application, would not be eligible to submit an Application, either individually or as member of a Consortium.

4.2.5. A Bidder including any Consortium Member or Associate should, in the last 3 (three) years, have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial pronouncement or arbitration award against the Bidder, Consortium Member or Associate, as the case may be,

nor has been expelled from any project or contract by any public entity nor have had any contract terminated by any public entity for breach by such Bidder, Consortium Member or Associate.

4.2.6 The bidder needs to clearly indicate in its offer any on-going actions, disputes, arbitration proceedings, blacklisting procedure with any State or Central government department. The details need to be provided in the following format:

Case No.	Name of Case	Department	Name of Govt. Officer handling the case with contact no.	Current Status	Attach details such copy of letter, notice etc.

In case any false information is provided by the bidder and NMC investigates the facts, in such a scenario NMC reserves the right to disqualify the bidder and not open its financial proposal without incurring any financial and legal liabilities.

4.2.7. In computing the Technical Capacity and Financial Capacity of the Bidder/ Consortium Members under Section 5, the Technical Capacity and Financial Capacity of their respective Associates, if any shall not be eligible.
The project experience of only the bidder in its own name shall be considered for evaluating Technical and Financial capacity

4.2.8. The following conditions shall be adhered to while submitting an Application:

a. Bidders should attach clearly marked and referenced continuation sheets in the event that the space provided in the prescribed forms in the Annexes is insufficient. Alternatively, Bidders may format the prescribed forms making due provision for incorporation of the requested information.
b. Information supplied by a Bidder (or other constituent Member if the Bidder is a Consortium) must apply to the Bidder, Member or Associate named in the Application and not, unless specifically requested, to other associated companies or firms
c. In responding to the Application submissions, Bidders should demonstrate their capabilities in accordance with Clause 5.1.1

4.2.9. Notwithstanding anything to the contrary contained herein, in the event that the Application Due Date falls within three months of the closing of the latest financial year of an Bidder, it shall ignore such financial year for the purposes of its Application and furnish all its information and certification with reference to the 3 (three) years, preceding its latest financial year. For the avoidance of doubt, financial year shall, for the purposes of an Application hereunder, mean the accounting year followed by the Bidder in the course of its normal business.

4.3. General Terms of Bidding Process

4.3.1. The interested Bidders are expected to carry out their own surveys, investigations and other detailed examination of the Project and the Project Site before submitting their Application. Nothing contained in the RFP Document Development Agreement and the approved Design Proposal shall be binding on the NMC nor confer any right on the Bidders, and the NMC shall have no liability whatsoever in relation to or arising out of any or all contents of the RFP Document ,Development Agreement and the approved Design Proposal.

4.3.2. Notwithstanding anything to the contrary contained in this RFP, the detailed terms specified in the Development Agreement shall have overriding effect; provided, however, that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Development Agreement

4.3.3. The documents including this RFP and all attached documents, provided by the NMC are and shall remain or become the properties of the NMC and are transmitted to the Bidders solely for the purpose of preparation and the submission of its Application in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Application. The provisions of this Clause 4.3.3 shall also apply *mutatis mutandis* to Application and all other documents submitted by the Bidders, and the NMC will not return to the Bidders any Application, document or any information provided along therewith.

4.3.4. This RFP is not transferable.

4.3.5. Conditional Bids shall be summarily rejected.

4.3.6. Any award of development & sales rights pursuant to this RFP shall be subject to the terms of Bidding Documents.

4.4.1 Change in composition of the Consortium

4.4.2 Under no circumstances the replacement and/or change in composition of the Consortium shall be allowed.

4.4.3 Notwithstanding anything to the contrary contained in Clause 4.2, a Bidder who suffers from a Conflict of Interest, such Bidder/Consortium shall be disqualified/debarred from the Bidding Process and its Bid Security shall be forfeited.

4.5 Number of Applications and costs thereof

4.5.1 No Bidder shall submit more than one Application for the Project. A Bidder applying individually or as a member of a Consortium shall not be entitled to submit another application either individually or as a member of any Consortium, as the case may be.

4.5.2 The Bidders shall be responsible for all of the costs associated with the preparation of their Applications and their participation in the Bidding Process. The NMC will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

4.6 Project site visit and verification of information

Bidders are encouraged to submit their respective Applications after visiting the Project site and ascertaining for themselves the site conditions, location, surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, applicable laws and regulations, and any other matter considered relevant by them.

4.7 Acknowledgement by Bidder

4.7.1 It shall be deemed that by submitting the Application, the Bidder has:

(a) made a complete and careful examination of all volumes of the RFP;

(b) received all relevant information requested from the NMC;

(c) accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the NMC relating to any of the matters referred to in Clause 4.5 above; and

(d) Agreed to be bound by the undertakings provided by it under and in terms hereof.

4.7.2 The NMC shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to the RFP, Development agreement or the Bidding Process, including any error or mistake therein or in any information or data given by the NMC.

4.8 Right to accept or reject any or all Applications

4.8.1 Notwithstanding anything contained in this RFP, the NMC reserves the right to accept or reject any Application and to annul the Bidding Process and reject all

Applications, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons thereof. In the event that the NMC rejects or annuls all the Applications, it may, in its discretion, invite all Eligible Bidders to submit fresh Applications hereunder.

4.8.2 The NMC reserves the right not to proceed with the Bidding Process at any time, without notice or liability, and to reject any Application without assigningany reasons.

4.8.3 The NMC reserves the right to reject any Application, at any time, if:

a) at any time, a material misrepresentation is made or uncovered, or

b) the Bidder does not provide, within the time specified by the NMC, the supplemental information sought by the NMC for evaluation of the Application.

If the Bidder is a Consortium, then the entire Consortium may be disqualified/ rejected. If such disqualification/ rejection occurs after the Financial Offer have been opened and the H1 Bidder gets disqualified/ rejected, then the NMC reserves the right to

a) Invite the remaining Bidders to match the Financial Offer of the H1 Bidder / submit their Applications in accordance with the RFP; or

b) Take any such measure as may be deemed fit in the sole discretion of the NMC, including inviting fresh Applications or annulment of the Bidding Process, without any liability.

4.8.4 In case it is found during the evaluation or at any time before execution of the Development Agreement or after the execution of the Development Agreement, that one or more of the pre-qualification conditions have not been met by the Bidder, or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Developer either by issue of the LOA or entering into of the Development Agreement, and if the Bidder/SPV hasalready been issued the LOA or has entered into the Development Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by acommunication in writing by the NMC to the Bidder, without the NMC being liable in any manner whatsoever to the Bidder and without prejudice to any other right or remedy which the NMC may have under this RFP, the Bidding Documents, the Development Agreement or under applicable law.

4.8.5 NMC reserves the right to verify all statements, information and documents submitted by the Bidder in response to the RFP. Any such verification or lack of such verification by NMC shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of NMC there under.

4.9 Application Validity Period

4.9.1 The Application shall be valid for a period of not less than 180 (one hundred and eighty) days from the Application Due Date ("**Application Validity Period**"). The NMC at its discretion and if deemed fit can extend the validity period and the Application Validity Period shall be extended by the respective Bidders as per directions of the NMC.

4.10 Confidentiality

Information relating to the examination, clarification, evaluation, and recommendation for the short-listed Technically Qualified Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising NMC in relation to or matters arising out of, or concerning the Bidding Process. NMC shall treat all information, submitted as part of Application, in confidence and shall require all those who have access to such material to treat the same in confidence. NMC may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or NMC or as may be required by law or in connection with any legal process.

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B. DOCUMENTS

4.11 Contents of the RFP

This RFP comprises the disclaimer set forth hereinabove, the contents as listed below, and will additionally include any addenda issued in accordance with Clause 4.13.

Section 1	DISCLAIMER
Section 2	GLOSSARY
Section 3	INTRODUCTION
Section 4	INSTRUCTIONS TO BIDDERS
Section 5	QUALIFICATION APPLICATION
Section 6	FINANCIAL OFFER
Section 7	FRAUD AND CORRUPT PRACTICES
Section 8	PRE-BID MEETING
Section 9	MISCELLANEOUS

Annexure A - Qualification Application comprising various Appendices.

Annexure B - Letter comprising the Financial Offer

4.12 Clarification

4.12.1 Bidders requiring any clarifications to the RFP may notify the NMC in writing or by fax and e-mail to the officer designated in Clause 4.18.5 below. The envelopes/communications shall clearly bear the following identification/title: "**Queries/Request for Additional Information: RFP for Development of NMC Orange City Shopping Mall**". They should send in their queries before the date specified in the schedule of Bidding Process contained in Notice Inviting Request for Proposal. NMC shall endeavor to respond to the queries within the period specified therein. The responses shall be sent by fax and/or e-mail. NMC shall forward all the queries and its responses thereto, to all purchasers of the RFP without identifying the source of queries.

4.12.2 NMC shall endeavor to respond to the questions raised or clarifications sought by the Bidders. However, NMC reserves the right not to respond to anyquestion or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring NMC to respond to any question or to provide any clarification.

4.12.3 NMC may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by the NMC shall be deemed to be part of the RFP. Verbal clarifications and information given by NMC or its employees or representatives shall not in any way or manner be binding on NMC.

4.13 Amendment of RFP and Development agreement

4.13.1 At any time prior to the deadline for submission of Application, NMC may, for any reason, whether at its own initiative or in response to clarifications requested by a Bidder, modify the bidding documents by the issuance of revised versions of the bidding documents and/or Addendum / corrigendum. In all cases the revised version of the RFP and the Development agreement would bedeemed to completely override the contents of the earlier documents.

4.13.2 Any revisions thus issued shall be available on the website **www.mahatenders.gov.in**

4.13.3 In order to afford the Bidders a reasonable time for taking a revision into account, or for any other reason, NMC may, in its sole discretion, extend the Application Due Date.





4.14 Proprietary data

All documents and other information supplied by NMC or submitted by a Bidder to NMC shall remain or become the property of NMC. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Application. NMC will not return any Application or any information provided along therewith.

4.15 Correspondence with the Bidder

4.15.1 Save and except as provided in this RFP, NMC shall not entertain any correspondence with any Bidder in relation to the acceptance or rejection of any Application

C. Preparation and Submission of Application

4.16 Language

The Application and all related correspondence and documents in relation to the Bidding Process shall be in English language.

Supporting documents and printed literature furnished by the Bidder with the Application may be in any other language provided that they are accompanied by translations of all the pertinent passages in the English language, duly authenticated and certified by the Bidder.

Supporting materials, which are not translated into English, may not be considered.

For the purpose of interpretation and evaluation of the Application, the English language translation shall prevail.

4.17 Format and signing of Application

4.17.1 The Bidder shall provide all the information sought under this RFP. NMC shall evaluate only those Applications that are received in the required formats and complete in all respects. Incomplete and /or conditional Applications shall be liable to rejection.

4.17.2 The Bidder shall prepare the Application as specified in Clause 4.18.

4.17.3 The Technical Documents as specified at clause 5.4 shall be typed or written in indelible ink and signed by the authorized signatory of the Bidder who shall also initial each page in blue ink. In case of printed and published Documents, only the cover shall be initialed. All the alterations, omissions, additions or anyother amendments made to the Application shall be initialed by the person(s)

signing the Application. The Application shall contain page numbers serially and shall be bound together in hard cover.

4.17.4 There shall be no overwriting or corrections while filling the Application. Overwriting or corrections shall make the offer null and void

4.18 Submission of Applications

4.18.1 The Bidder shall submit the Application as stipulated below

4.18.2 The documents as specified at clause 5.4.1 shall be uploaded duly signed by the authorized signatory.
The Technical Documents as specified at clause 5.4.2 shall be submitted in hard copy at the office of NMC as specified at clause 3.2.1.

4.18.4 The Financial Proposal shall be submitted online in the BoQ format provided therein as well as in the hard copy. Any tampering with the online format shall make the proposal disqualified.

4.18.5 Envelope containing the Proposal for NMC Orange City Shopping Mall shall be submitted at the below mentioned location within two days after the online submission time and shall not be submitted before submission of the online bid:

Office of
The Executive Engineer (Project)
Nagpur Municipal Corporation,
Civil Lines, Mahanagar Palika Marg, Nagpur
Phone: 0712-254283
E mail: eeprojectsnmc@gmail.com

4.18.7 If the envelope is not sealed and marked as instructed above, NMC assumes no responsibility for the misplacement or premature opening of the contents of the Application and consequent losses, if any, suffered by the Bidder.

4.18.8 Applications submitted by fax, telegram or e-mail shall not be entertained and shall be rejected.

4.19 Application Due Date

4.19.1 Applications should be submitted as per the schedule mentioned in the Notice Inviting Request for Proposal on the Application Due Date in the manner and form as detailed in this RFP.

4.19.2 NMC may, in its sole discretion, extend the Application Due Date by issuing an Addendum in accordance with Clause 4.13 uniformly for all Bidders.

4.20 Late Applications

Applications received by NMC after the specified time on the Application Due Date shall not be accepted for whatsoever reasons.

4.21 Modifications/ substitution/ withdrawal of Applications

4.21.1 The Bidder may modify, substitute or withdraw its Application after submission, provided that written notice of the modification, substitution or withdrawal is received by NMC prior to the Application Due Date. No Application shall be modified, substituted or withdrawn by the Bidder on or after the Application Due Date.

4.21.2 Any alteration/ modification in the Application or additional information supplied subsequent to the Application Due Date, unless the same has been expressly sought for by NMC, shall be disregarded.

4.22 Bid Security

4.22.1 Bidders shall deposit, along with their Bids, a Bid Security of Rs. 20, 00,000/- (Rupees Twenty Lacs only) **(the "Bid Security")**.

The Bidders shall provide the Bid Security as specified in the bidding documents through online payments gateway service available on Electronic Tendering System. For the list of options for making online payments, the bidders are advised to visit the linked E-Payment Options available on the web portal mahatenders.gov.in and submit a receipt generated online in scanned form along with online submission and the copy of the receipt generated online should be submitted in separate envelope with envelope "Technical Bid" to be submitted in hard form as per scheduled time mentioned herein at the office of NMC, Civil Lines, Nagpur. The tender without the Bid Security shall be summarily rejected.

The Bid Security in the form of exemption certificate issued by any registration authority shall not be accepted.

No relaxation of any kind on Bid Security shall be given to any Bidder. NMC shall not be liable to pay any interest on the Bid Security deposit so made and the same shall be interest free.

4.22.2 Any Application not accompanied by the Bid Security shall be summarily rejected by NMC as non-responsive.

4.22.2 The Bid Security of unsuccessful Bidders will be returned by NMC, without any interest, as promptly as possible on acceptance of the Application of theSelected Bidder or when the Bidding Process is annulled by NMC, and in any case within 180 (One Hundred and Eighty) days from the Application Due Date.

The refund thereof shall be in the form as indicated in the online portal.

4.22.3 The Selected Bidder"s Bid Security will be returned, without any interest, upon the Developer signing the Development Agreement and furnishing the Performance Security by way of an irrevocable Bank Guarantee of a Nationalized Bank equivalent to 5% of the construction cost in accordance with the provisions in the Development Agreement. NMC may, at the Selected Bidder"s request, allow the Selected Bidder to adjust the Bid Security in the amount of Performance Security to be provided by him in accordance with the provisions of the Development Agreement.
The Selected Bidder shall ensure that the validity period of the Bid Security is extended as per the requirement of the Development Agreement. The Performance Security shall be for a period of 60 (sixty) months or till the subsistence of the Development Agreement, whichever is later. The Developer can submit the Bank Guarantee for one year at a time but it shall be the responsibility of the Developer to renew the same annually and NMC shall not be responsible for the same in any way.

4.22.4 NMC shall be entitled to forfeit and appropriate the Bid Security as Damages inter alia in any of the events specified in Clause 4.22.6 herein below. The Bidder, by submitting its Application pursuant to this RFP, shall be deemed to have acknowledged and confirmed that NMC will suffer loss and damage on account of withdrawal of its Application or for any other default by the Bidder during the Application Validity Period as specified in this RFP. No relaxation of any kind shall be given to any Bidder in respect of the forfeiture of the Bid Security for the purposes of this clause.

4.22.5 The Bid Security shall be forfeited as Damages without prejudice to any other right or remedy that may be available to NMC under the Bidding Documents and/ or under the Development agreement, or otherwise, under the following conditions:

(a) If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as specified in Section 7 of this RFP;

(b) If a Bidder withdraws its Application during the Application Validity Period as specified in this RFP and as extended by mutual consent of the respective Bidder(s) and NMC;

(c) In the case of Selected Bidder, if it fails within the specified time limit –

(i) to sign and return the duplicate copy of LOA; or

(ii) to sign the Development agreement; or

(ii) to furnish the Performance Security within the period prescribed thereof in the Development agreement.

D. Evaluation Process

4.23 Opening and Evaluation of Applications

4.23.1 NMC shall open the Applications as per schedule specified in the Notice Inviting Request for Proposal, at the venue specified in Clause 4.18.5 and in the presence of the Bidders who choose to attend.

4.23.2 Applications for which a notice of withdrawal has been submitted in accordance with Clause 4.21 shall not be opened.

4.23.3 NMC will subsequently examine and evaluate Applications in accordance with the provisions set out in Clause 4.24 and Section 5.

4.23.4 Bidders are advised that pre-qualification of Bidders will be entirely at the discretion of NMC. Bidders will be deemed to have understood and agreed that no explanation or justification on any aspect of the Bidding Process or selection will be given.

4.23.5 Any information contained in the Application shall not in any way be construed as binding on NMC, its agents, successors or assigns, but shall be binding against the Bidder if the Project is subsequently awarded to it on the basis of such information.

4.23.6 NMC reserves the right not to proceed with the Bidding Process at any time without the notice or liability and to reject any or all Application(s) without assigning any reasons.

4.23.7 If any information furnished by the Bidder is found to be incomplete, or contained in formats other than those specified herein, NMC may, in its sole discretion, exclude the relevant portion from computation of Technical and Financial capacity of the Bidder.

4.23.8 In the event that a Bidder claims credit for an Eligible Project, and such claim is determined by NMC as incorrect or erroneous, NMC shall reject such claim and exclude the same from evaluation of Technical Capacity of the Bidder, make a further deduction equivalent to the claim rejected hereunder. Where any information is found to be patently false or amounting to a material misrepresentation, NMC reserves the right to reject the Application in accordance with the provisions of Clauses 4.8.3 and 4.8.4.

4.24 Tests of responsiveness

4.24.1 Prior to evaluation of Applications as per Section 5, NMC shall determine whether each Application is responsive to the requirements of the RFP. An Application shall be considered responsive only if:

(a) It is received as per the guidelines of online bidding as prescribed on the website www.mahatenders.gov.in;

(b) It is received as per schedule specified in the Notice Inviting Request for Proposal on the Application Due Date including any extension thereof pursuant to Clause 4.19.2;

(c) The hard copy proposal documents are signed, sealed, bound, and marked as stipulated in Clauses 4.17 and 4.18;

(d) It is accompanied by the Power of Attorney as specified in Clause 4.2.2, and in the case of a Consortium, the Power of Attorney as specified in Clause 4.2.3(c);

(e) It contains all the information and documents (complete in all respects) as requested in this RFP;

(f) It contains information in formats same as those specified in this RFP;

(g) It contains certificates from its statutory auditors in the formats specified at Annexure A of the RFP for each Similar Project;

(h) Tender Document cost Rs. 20,000/- (Rupees Twenty Thousand only) non-refundable to NMC towards the cost of the Bidding Documents has been made as prescribed on the website www.mahatenders.gov.in;

(i) Bid Security of 20,00,000/-(Rupees Twenty Lacs only) as prescribed on the website **www.mahatenders.gov.in;**

(j) It is accompanied by the Consortium Agreement (in case of consortium bidding), specific to the Project, as stipulated in Clause 4.2.3(g);

(k) It does not contain any condition or qualification in either the Technical Proposal or Financial Bid;

(l) It is accompanied with the declaration that the Financial Bid of the Bidder is above the minimum amounts mentioned in Clause 6.1 of this RFP; and

(m) It is not non-responsive in terms hereof.

4.24.2 NMC reserves the right to reject any Application which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by NMC in respect of such Application.

4.25 Clarifications

4.25.1 To facilitate evaluation of Applications, NMC may, at its sole discretion, seek clarifications from any Bidder regarding its Application. Such clarification(s) shall be provided within the time specified by NMC for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.

4.25.2 If a Bidder does not provide clarifications sought under Clause 4.25.1 above within the prescribed time, its Application shall be liable to be rejected. In case the Application is not rejected, they may proceed to evaluate the Application by construing the particulars requiring clarification to the best of its understanding, and the Bidder shall be barred from subsequently questioning such interpretation of NMC.

4.26 Award of Project

4.26.1 **Letter of Award** – Upon completion of the Bidding Process and identification of the H1 Bidder, subject to meeting the other qualification requirement laid down in RFP as prescribed in Clause 5, NMC shall announce the selection of the H1 Bidder and will issue the LOA to it.

4.26.2 The H1 Bidder shall be required to satisfy the following conditions that may be prescribed under the LOA:

(a) Sign and return a duplicate copy of LOA to the NMC within 7 days,

(b) Submit the Performance Security within 14 days of LOA,

(c) Execute the Development Agreement with the NMC within 21 days of LOA, and

(d) Disburse the Upfront Premium to NMC within 60 days of Appointed Date

(e) Any other condition as may be prescribed under the LOA.

5. QUALIFICATION APPLICATION

The Applicant"s competence and capability is proposed to be established by the following parameters:

a. Technical Capacity; and
b. Financial Capacity

5.1 Evaluation parameters

5.1.1 The Bidder for Qualification has to demonstrate Technical Capacity and Financial Capacity

(a) **Technical Capacity**: For demonstrating experience in executing similar projects (the "**Technical Capacity**"), the Bidder should have met the following qualification requirements:

The Bidders should have undertaken the development/construction of the following "**Similar Projects**" as mentioned below:

At-least **One similar project** having built up area of **Ninety One Thousand Two Hundred square feet** (total built up area of RCC Structure/ Combination of RCC- Steel Structure at a single location along-with all with all support facilities and infrastructure facilities) in the last 10 financial years in India.

OR

At-least **Two similar projects** having built up area of **Fifty Seven Thousand square feet** (total built up area of RCC Structure/ Combination of RCC-Steel Structure at two independent locations along-with all with all support facilities and infrastructure facilities) in the last 10 financial years in India.

OR

At-least **Three similar projects** having built up area of **Forty Five Thousand Six Hundred square feet** (total built up area of RCC Structure/ Combination of RCC-Steel Structure at three independent locations along-with all with all support facilities and infrastructure facilities) in the last 10 financial years in India.

b) **Financial Capacity**:

I. Average Turnover of the Bidder for last 3 years: INR 12 Crores (Rupees Twelve Crores).
II. The Bidder shall have a minimum Net-worth of INR 02 Crores (Rupees Two Crores) as stipulated in the Clause 5.2.
III. The Bidder should have un-utilized Credit Lines with its Bankers or liquid funds to the tune of at-least Rs. 08 Crores (Rupees Eight Crores)

5.1.1 **c)** In case of a Consortium, the combined technical capacity and financial capacity of those Members shall be considered, who have and shall continue to have Equity share of at least 26% (twenty six percent) in the SPV.

If technical experience in case of consortium is shown jointly then the number of projects of each partner needs to be shown, evaluation shall be done on the number of project"s meeting the criteria. Clubbing of built up area shall not be allowed.

5.1.2 For the purpose of qualification, Similar Projects shall mean:

Any Real Estate Development project such as those of Government/Institutional buildings, Hotel buildings, Convention Centres, Educational buildings, Hospital buildings, Multi Utility Shopping Complex/Mall, Integrated Commercial Office Complex with requisite parking.

The Sales of the various components of the said real estate development project should have been successfully completed.
In case of purely construction contracts relevant documents from the client"s such as completion certificates, certificate from statutory auditor regarding revenue receipts received from the said contract with copy of relevant bank statement shall be furnished.

5.1.3 The similar projects shall meet the following criteria:

a. Capital cost of the Project should be more than Rs. 33 Crores for one similar project, more than 21 crores each for two similar projects and more than Rs. 16 crores each for three similar projects; and
b. COD of the project should be within a period of the last 10 financial years from the Application Due Date.

In case of on-going projects, 90% completed projects (in terms of project cost) shall be accepted provided the same is certified by the PMC of the client and by the Statutory Auditor of the bidder indicating the details of the revenue receipts from the project . However such 90% project cost shall be more than the capital cost of the qualifying projects as mentioned above.

For the purpose of qualifying, prospective bidders need to fulfil the requirement of similar projects in terms of built up area and capital cost and the bidders shall be at liberty to show Government or Private projects e.g. projects can be purely Government or private sector projects or a combination of Government and private sector projects. But in any case clubbing of built up area between projects shall not be allowed.

The Developer shall provide details of its Operation & Maintenance (O&M) expertise.

5.2 Financial information for the purpose of evaluation

5.2.1 For the purpose of this RFP document, Net Worth (the "**Net Worth**") is defined as:

Net Worth = (Subscribed and Paid-up equity capital + Reserves) – (Revaluation reserves + miscellaneous expenditure not written-off + reserves not available for distribution to equity shareholder)

5.2.2 For the purpose of measuring Financial Capacity:

(a) In case of a Single Entity Bidder, the Average Net Worth and Average Turnover of the past 3 (three) financial years will be considered. The Net Worth, Turnover and Unutilized Credit Limits information should be provided as per format in Appendix A3

(b) in case of a Consortium, Combined Net Worth and Turnover as per the Appendix A3, where Combined Net Worth, Turnover and Un-utilized Credit Limits (**"Combined Net Worth, Turnover and Un-utilized Credit Limits"**) is calculated by weighting the Average Net Worth and Turnover of the past 3 (three) financial years of individual Member by their respective proposed Equity stake (%) in the Consortium. The Net Worth, Turnover and Un-utilized Credit Limits of only those consortium members would be considered which satisfy Clause 5.1.1(c).

5.3 Technical Concept Presentation:

5.3.1. Subject to the provision of Clause 5, all technically qualified bidders shall prepare and submit, as specified in this RFP, a Development and Implementation Planfor the proposed project taking into consideration the following parameters:

- Applicable Development Control Regulations/Building Byelaws
- Applicable Zoning &Master plan
- Maximum Development Potential Available
- All Statutory Regulation, Laws as applicable to development of the facility
- Existing Market conditions and any other factor deemed important by the bidder

The technically qualified bidder shall capture the following in its presentation:

- Its understanding and interpretation of the Project
- Financial planning and Revenue Generation Model for implementation of the Project. Editable Financial Model for the Project to be shared by the bidder/s during the presentation
- Proposed Revenue Sharing model in case of additional development along with its editable financial model.
- Highlight its experience in executing similar projects for other clients.

- Indicate proposed methodology and tentative planning for implementation of the Project in terms of the Construction Plan and its Execution.
- Indicate the plan for Facility Management and Maintenance.
- Indicate the material specifications for development of the Project.
- Indicate the proposed internal planning of the Shopping Mall vis-a-vis the planning proposed by NMC.
- Indicate its Marketing & Sales Plan for the Project considering the existing market conditions.

5.3.2 Each of the technically qualified bidders shall be called upon to make a Technical Concept & Implementation Plan Presentation to the Authority on an appointed date and time as per schedule mentioned elsewhere in this document. The bidder shall highlight how it plans to conceptualize, develop and implement the project.

5.4 Details of Experience

5.4.1 Documents to be uploaded online are as follows:

1. Receipt regarding payment of RFP document cost shall be scanned and submitted.
2. Receipt regarding submission of Bid Security shall be scanned and submitted.
3. Forms regarding technical experience in the prescribed format at Appendix A1, Appendix A2 and Appendix A3 along with supporting documents;
4. Performance certificate(s) from the concerned client(s) [along with a certificate from the statutory auditor] stating the area of development, time taken to complete the project, Cost of the project, Facilities (as mentioned earlier) provided in the development, Organisational set up, copies of sale deeds etc. The performance certificates shall be signed by an officer not below the rank of Executive Engineer in case of Government projects and by a Director in case of private projects.
5. Certificate(s) from the concerned client(s) evidencing the COD of the project. The certificates shall be signed by an officer not below the rank of Executive Engineer in case of Government projects and by a Director in case of private projects.
6. Certificate(s) from the concerned client(s) evidencing the sale of the various components of the project. The certificates shall be signed by an officer not below the rank of Executive Engineer in case of Government projects and by a Director in case of private projects.
7. In case of purely construction contracts relevant documents from the client"s such as completion certificates, certificate from statutory auditor regarding revenue receipts received from the said contract with copy of relevant bank statement shall be furnished.

8. In case of 90% completed projects, certificates from the project PMC and the Bidders" Statutory Auditor.
9. Copies/copies of relevant pages of the approved DPR/Bankable Report for the concerned projects.
10. Copy of the Consortium Agreement, in case of a Consortium as per the format at Appendix A6;
11. Power of Attorney for signing the Application as per the format at Appendix A4;
12. If applicable, the Power of Attorney for Lead Member of Consortium as per the form at Appendix A5;
13. Statement of Legal Capacity as per the format at Appendix A7.
14. Certificate(s) from its statutory auditors specifying the Net Worth, Turnover and Un-utilized Credit Limits of the Bidder, as at the close of the preceding financial year (before the Application Due Date), and also specifying that the methodology adopted for calculating such Net Worth and Turnover conforms to the provisions of Clause 5.2.1 and 5.2.2
15. Certificate from the Bidder"s Bankers (including Consortium member) regarding the un-utilized credit limits or liquid funds.
16. Brief Development cum Implementation Plan for the project.
17. Financial Bid as per BOQ duly filled without tampering with the format.

5.4.2 Technical Documents to be submitted in hard copy at NMC office are as Follows:

1. Duly signed copy of the downloaded RFP along-with all the Volumes.
2. Copy of Memorandum and Articles of Association, if the Bidder is a body corporate, and if a partnership then a copy of its registered partnership deed;
3. Audited Annual Reports of the Bidder (of each Member in case of a Consortium) for the last 3 (three) financial years, preceding the year in which the Application is made.
4. Company/Firm Profiles of the Bidder (of each Member in case of a Consortium).
5. List of Technical Manpower of the Bidder (of each Member in case of a Consortium) with copies of their CVs and educational certificates.
6. List of machinery and equipment"sof the Bidder (of each Member in case of a Consortium).
7. Actual Photographs of similar projects undertaken by the bidder previously (of each Member in case of a Consortium).
8. Details of the O&M agency regarding projects, manpower, equipment"s etc.
9. Copy of the Concept cum Implementation Plan for the project along with the Presentation.

10. Hard copy of the duly filled in Financial Bid.

All the above Technical Documents shall be bound together in hard cover and the pages shall be numbered serially and the financial bid shall be in a separate envelope. The two separate envelopes shall be put in one single larger envelope for submission.

6. FINANCIAL OFFER

6.1 Financial Offer

6.1.1 Financial Offer shall comprise of:

- Up-front Premium of Rs. 5.00 crores (Rupees Five Crores only) to be paid to NMC within 60 days of Appointed Date.
- Lump-sum Financial offer to be shared with NMC shall be subject to a minimum of Rs 45 crores (Rupees Forty Five crores) from Sale Proceeds from the various components of the Project. Bidders have to quote over and above this figure of Rs 45 crores. (Bidding Parameter).
- The bidder quoting the Highest Lump-sum Financial Offer to be shared with NMC shall be the H1 bidder.
- Payment of the Financial Offer shall be done proportionate to the Sales Proceeds received after adjusting for the Upfront Premium of Rs. 5.00 crores. The detailed payment schedule is provided in the Development Agreement.
- In case the payment of balance amount (amount as quoted less Rs 5 crores upfront) to NMC exceeds 24 (twenty four months), then the balance amount payable to NMC shall be increased by a percentage equivalent the increase in Ready Reckoner Rates from previous year for the Project Site area for the upcoming respective year.
- 100% of the Lump-sum Financial Offer amount payable to NMC shall be payable by the Developer on or prior to the completion of 80% of the Sale Process from the Project.

The Bidder shall be granted the rights to design (Structural Design & Internal Arrangement of the Mall), finance, build, operate, market and sell the various components of the Project.

The strategic and financial decisions with regard to the NMC Orange City Mall Facility shall be approved by a Strategic Committee comprising of Hon"ble. Commissioner, Deputy Municipal Commissioner (In charge of Projects Dept.), Executive Engineer - Projects and representative of the Developer ("**Strategic Committee**").

The general day to day operating decisions with regard to the NMC Orange City Mall Facility shall be approved by an Empowered Committee comprisingof Addl. Commissioner, Deputy Municipal Commissioner (In charge of Projects Dept.), Executive Engineer - Projects and representative of the Developer ("**Empowered Committee**").

6.2 Evaluation of the Financial Offer

6.2.1 The evaluation of Financial Offer shall be done on the basis of the Maximum Lump-sum Financial Offer to be shared with NMC (as indicated above) and the Bidder quoting the Maximum Lump-sum Financial Offer over and above the minimum shall be the H1 bidder subject to meeting the other technical qualification requirements as laid out in this RFP.

6.2.2 Unreasonably high or low financial offers are liable to be rejected by NMC, without incurring any obligation or liability. The Hon'ble Municipal Commissioner, NMC shall be the final decision making authority in this regard.

6.2.3 The Financial Offer should be uploaded in the BOQ format as available on the website **www.mahatenders.gov.in.**

7. Fraudulent and Corrupt Practices

7.1.1 The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, NMC may reject an Application without being liable in any manner whatsoever to the Bidder if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process.

7.1.2 Without prejudice to the rights of NMC under Clause 7.1.1 hereinabove, if a Bidder is found by NMC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, such Bidder shall not be eligible to participate in any tender or RFP issued by NMC during a period of 2 (two) years from the date such Bidder is found by NMC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

7.1.3 For the purposes of this Section 7, the following terms shall have the meaning hereinafter respectively assigned to them:

(a) "**corrupt practice**" means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to, or employing, or engaging in any manner whatsoever, directly or indirectly, any official of NMC who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Development agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service

of NMC, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process);

(b) "**fraudulent practice**" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;

(c) "**coercive practice**" means impairing or harming or threatening to impair or harm, directly or indirectly, any person or property to influence any person"s participation or action in the Bidding Process;

(d) "**undesirable practice**" means (i) establishing contact with any person connected with or employed or engaged by the NMC with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and

(e) "**restrictive practice**" means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

8. Pre-Bid Meeting

8.1.1 Pre-Bid Meeting(s) of the interested parties shall be convened at the designated date, time and place. Only those persons who have purchased the RFP document shall be allowed to participate in the Pre-Bid Meeting(s). A maximumof 2 (two) representatives of each Bidder shall be allowed to participate on production of NMC letter from the Bidder.
Owing to the prevailing Covid-19 condition, the Pre Bid shall be simultaneously conducted through Video Conferencing and only those representatives who prefer to attend in person can attend.
The queries of the prospective bidders should be submitted in written form as per the schedule mentioned in the Notice Inviting Request for Proposal. Mere discussion on a point during the Pre Bid meeting (physical or virtual) shall not be construed as submission of queries and shall not be considered for clarification.

8.1.2 During the course of Pre-Bid Meeting, the Bidders will be free to seek clarifications and make suggestions for consideration of NMC. NMC shall endeavor to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Bidding Process.

09. Miscellaneous

9.1.1 The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Nagpur shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.

9.1.2 NMC, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;

a) Suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
b) Consult with any Bidder in order to receive clarification or further information;
c) Pre-qualify or not to pre-qualify any Bidder and/ or to consult with any Bidder in order to receive clarification or further information;
d) Retain any information and/ or evidence submitted to NMC by, on behalf of, and/ or in relation to any Bidder; and/ or
e) Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.

9.1.3 It shall be deemed that by submitting the Application, the Bidder agrees and releases NMC, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder and the Bidding Documents, pursuant hereto, and/ or in connection with the Bidding Process, to the fullest extent permitted by applicable law, and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent,whether present or in future.

9.1.4 The H1 Bidder shall be required to submit the applications and obtain permission, approval, consent, license etc., as may be required for execution of the Project, from the respective competent authorities such as NMC"s planning department, heritage committee, garden department, environment department and / or any other statutory body before commencement of the work at its cost. Any changes, additions, alterations, deletion mandatorily required to be done any of the various NMC granting approvals, consents, permissions etc. shall not entitle the H1 Bidder / Developer to seek change in the Financial Offerand subject to provisions of the Development agreement, the Financial Offer submitted will always remain final and binding.

10. ANNEXURES

A. Annexure A – Qualification Application

10.1 Appendix A1

Details of Bidder:

1. (a) Name:

   (b) Country of incorporation:

   (c) Address of the corporate headquarters and its branch office(s), if any, in India:

   (d) Date of incorporation and/ or commencement of business:

2. Brief description of the Organization including details of its main lines of business and proposed role and responsibilities in this Project:

3. Details of individual(s) who will serve as the point of contact/ communication for NMC:

(a) Name:

(b) Designation:

(c) Company:

(d) Address:

(e) Telephone Number:

(f) E-Mail Address:

(g) Fax Number:

4. Particulars of the Authorised Signatory of the Bidder:

(a) Name:

(b) Designation:

(c) Address:

(d) Phone Number:

(e) Fax Number:

5. In case of a Consortium:

(a) The information above (1-4) should be provided for all the Members of the Consortium.

(b) Information regarding the role of each Member should be provided as per table below:

Sl. No.	Name of Member	Role* (Refer Clause 4.2.3(c))	Percentage of Equity in the Consortium (Refer Clauses 4.2.3(a), 4.2.3(c), 4.2.3(g))
1.			
2.			

(c) The following information shall also be provided for each Member of the Consortium:

Name of Bidder / member of Consortium:

No.	**Criteria**	**Remarks**
1.	Has the Bidder/ constituent of the Consortium been barred by the [Central/ State] Government, or any entity controlled by it, from participating in any project (BOT or otherwise)?	
2.	If the answer to 1 is yes, does the bar subsist as on the date of Application?	
3.	Has the Bidder/ constituent of the Consortium paid liquidated damages of more than 5% (five per cent) of the contract value in a contract due to delay or has been penalized due to any other reason in relation to execution ofa contract, in the last three years?	

6. A statement as per Clause 4.2.6 by the Bidder and each of the Members of its Consortium (where applicable) or any of their Associates disclosing material non-performance or contractual non-compliance in past projects, contractual disputes and litigation/ arbitration in the recent past needs to be attached

10.2 Appendix-A-2

10.2.2 Table – T1

Experience in Similar type of Projects (Refer Clause 5.1.1 (a))

Bidder Type Single entity/ Consortium Member	
Name(s) of other members of consortium, in case the said project was executed as a consortium	
Name of the Project	
Area of Development	
Scope of the work for which the Bidder was responsible (min. 3 activities)	
Time Period	
Project Cost	
Period of Maintenance	
Master Plan & Brief note on the Project	
Photographs showing different activities included in the project	
Relevant Extracts of the Project DPR/Bankable Report	

Instruction:

1. Bidders are expected to provide information in respect of each Similar Project on separate sheets. The projects cited must comply with the eligibility criteria specified in Clause 5.1.1 (a) of the RFP.

2. Supporting documents with completion certificate should be attached.

10.3 Appendix-A-3

Financial Capacity of the Bidder :(Refer Clauses 5.1.1(b) and 5.2)

Net-worth:

Bidder Type	Proposed Equity Share for the NMC Orange City Mall Project (percentage)	Net Worth (INR Crore)			Average Net Worth (INR Crore)	Average Net Worth x Equity Share (INR Crore)
		Year 1	Year 2	Year 3		
Single entity Bidder						
Lead Member and Consortium Member 1						
Combined Net Worth (INR Crore)						

Turnover:

Bidder Type	Proposed Equity Share for the NMC Orange City Mall Project (percentage)	Turnover (INR Crore)			Average Turnover (INR Crore)	Average Turnover x Equity Share (INR Crore)
		Year 1	Year 2	Year 3		
Single entity Bidder						
Lead Member and Consortium Member 1						
Combined Turnover (INR Crore)						

Un-utilized Credit Limits or Liquid Funds:

Bidder Type	**Proposed Equity Share for the NMC Orange City Mall Project (percentage)**	**Un-utilized Credit Limits or Liquid Funds as on Application Due Date:** **(INR Crore)**	**Unutilized Credit Limit or Liquid Funds x Equity Share** **(INR Crore)**
Single entity Bidder			
Lead Member and Consortium Member 1			
Total			

Name and address of Bidder's Banker:

Instructions:

1. (1): Bidder consisting of a single entity should fill in details as per the row titled Single entity Bidder and ignore the rows titled Consortium Members. In case of a Consortium, row titled Single entity Bidder may be ignored.

2. For Equity Share, refer Clause 5.1.1(c)

3. For Net Worth, refer Clause 5.3.1

4. The Bidder/ its constituent Consortium Members shall submit copies of the balance sheets, financial statements and Annual Reports for 3 (three) years preceding the Application Due Date. The financial statements shall:

   (a) Reflect the financial situation of the Bidder or Consortium Members and its/ their Associates where the Bidder is relying on its Associate"s financials;

   (b) Be audited by a statutory auditor;

   (c) Be complete, including all notes to the financial statements; and

   (d) Correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

5. The Bidder shall provide an Auditor"s Certificate specifying the net worth of the Bidder and also specifying the methodology adopted for calculating such net worth in accordance with the Clause 5.4.2(a).

6. The Bidder should provide details of its own Financial Capacity or of an Associate specified in Clause 4.2.7.

7. In the case of a Consortium, a copy of the Consortium Agreement shall be submitted in accordance with Clause 4.2.3(g).

8. The Bidder shall also provide the name and address of the Bankers to the Bidder.

10.4 Appendix A4

Power of Attorney for signing of Application

(To be executed on Stamp paper of Rs. 100 (Rupees Hundred) or of appropriate value)

Know all men by these presents, We, ... (name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorise Mr. / Ms (Name), son/daughter/wife of ..... and presently residing at....., who is presently employed with us/ the Lead Member of our Consortium and holding the position of ....., as our true and lawful attorney (hereinafter referred to as the "**Attorney**") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our bid for the Project – Development of NMC Orange City Shopping Mall, being developed by Nagpur Municipal Corporation ("**NMC**") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders" and other conferences and providing information / responses to NMC, representing us in all matters before NMC, signing and execution of all contracts including the Development agreement and undertakings consequent to acceptance of our bid, and generally dealing with NMC in all matters in connection with or relating to or arising out of our bid for the said Project and/or upon award thereof to us and/or till the entering into of the Development agreement with NMC.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, ..., THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS ..... DAY OF....., 2021

For.....

PRAFULVED INFRA PVT. LTD.

(Signature, name, designation and address)
Witnesses:

1.

2.

Accepted Notarised

(Signature, name, designation and address of the Attorney)

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*

- *Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*

- *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Appostille certificate.*

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SAFEEZ CONTRACTOR

10.5 Appendix A5

Power of Attorney for Lead Member of Consortium

(To be executed on Stamp paper of Rs. 100 (Rupees Hundred) or of appropriate value)

Whereas the Nagpur Municipal Corporation, (the "NMC") has invited bids for the project "Development of NMC Orange City Shopping Mall (the "Project").

Whereas, ..., ...and.....(collectively the "Consortium") being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and NMC to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium"s bid for the Project and its execution.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

We, ... having our registered office at ....., M/s. ....., having our registered office at ....., and M/s. ....., having our registered office at ....., (hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorise M/s..... , having its registered office at ....., being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney") and hereby irrevocably authorise the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the Concession/ Contract, during the execution of the Project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, accept theLetter of Award, participate in bidders" and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with NMC, and/ or any

other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium"s bid for the Project and/ or upon award thereof till the Development Agreement is entered into with NMC.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS ..... DAY OF ....., 2021.

For .....

(Signature, Name & Title)

For .....

(Signature, Name & Title)

For .....

(Signature, Name & Title)

(Executants)

(To be executed by all the Members of the Consortium)

Witnesses:

1.

2.

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*

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- *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalised by the Indian Embassyif it carries a conforming Appostille certificate.*

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10.6 Appendix A6

Consortium Agreement

(To be executed on Stamp paper of Rs. 100 (Rupees Hundred) or of appropriate value)

THIS CONSORTIUM AGREEMENT is entered into on this the ..... day of ....., 2021.

AMONGST

1. [..... Limited, a company incorporated under the Companies Act, 1956]*and having its registered office at.....(Hereinafter referred to as the "First Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

* Bidder to suitably change, if required
{ } Indicates fields that could be deleted, if not applicable
AND

2. [..... Limited, a company incorporated under the Companies Act, 1956]* and having its registered office at ..... (hereinafter referred to as the "Second Part" which expression shall, unless repugnant to the context include its successors and permitted assigns)

The above mentioned parties of the FIRST and SECOND PART are collectively referred to as the "Parties" and each is individually referred to as a "Party"
WHEREAS

(A) Nagpur Municipal Corporation, Nagpur, established under the MMC Act,1949, represented by its Municipal Commissioner and having its principal offices at Mahanagar Palika Marg, Civil Lines, Nagpur - 400 051, India(hereinafter referred to as the "**NMC**" which expression shall, unless repugnantto the context or meaning thereof, include its administrators, successors and assigns)

(B) NMC has invited applications (the "Applications") by its Request for Proposal No._____dated_____(the "RFP") for selecting Developer for the financing, development, operation , maintenance and marketing & sales of various Project components of the Multi Utility Shopping Complex with Office Spaces and requisite parking (the "Project") through public private partnership.

(C) The Parties are interested in jointly bidding for the Project as members of a Consortium and in accordance with the terms and conditions of the RFP document and other bid documents in respect of the Project, and

(D) It is a necessary condition under the RFP document that the members of the Consortium shall enter into a Consortium Agreement and furnish a copythereof with the Application.

NOW IT IS HEREBY AGREED as follows:

1. Definitions and Interpretations

In this Agreement, the capitalised terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the RFP.

2. Consortium

2.1 The Parties do hereby irrevocably constitute a consortium (the "Consortium") for the purposes of jointly participating in the Bidding Process for the Project.

2.2 The Parties hereby undertake to participate in the Bidding Process only through this Consortium and not individually and/ or through any other consortium constituted for this Project, either directly or indirectly or through any of their Associates.

3. Covenants

The Parties hereby undertake that in the event the Consortium is declared the selected Bidder and awarded the Project, it shall incorporate a special purpose vehicle (the "SPV") under the Indian Companies Act, 1956/2013/ Partnership Act 1932 / LLP Act 2008/Maharashtra Shops & Establishments Act 1948/2018 for entering into a Development Agreement with the NMC and for performing all its obligations as the Developer in terms of the Development agreement for the Project.

4. Role of the Parties: The Parties hereby undertake to perform the Roles and Responsibilities as described below:

a. Party of the First Part shall be the Lead member of the Consortium and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium during the Bidding Process and until the Appointed Date under the Development Agreement when all the obligations ofthe SPV shall become effective;

b. Party of the Second Part shall be {the ..... Member of the Consortium ;}

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5. Joint and Several Liabilities

The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the RFP and the Development Agreement, till such time as theFinancial Close for the Project is achieved under and in accordance with the Development agreement.

6. Shareholding in the SPV

6.1 The Parties agree that the proportion of shareholding among the Parties in the SPV shall be as follows:

First Party:

Second Party:

6.2 The Parties undertake that the First Party will hold a minimum of 51% (fifty one per cent) and the other Party will hold a minimum of 26% (twenty six per cent) of the Equity of the SPV till completion of the Sales of the complete Project.

6.3 The Parties undertake that they shall comply with all Equity lock-in requirements set forth in the Development agreement.

7. Representation of the Parties

Each Party represents to the other Parties as of the date of this Agreement that:

a. Such Party is duly organised, validly existing and in good standing under the laws of its incorporation and has all requisite power and NMC to enter into this Agreement;

b. The execution, delivery and performance by such Party of this Agreement has been authorised by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/ power of attorney in favour of the person executing this Agreement for the delegation of power and NMC to execute this Agreement on behalf of the Consortium Member is annexed to this Agreement, and will not, to the best of its knowledge:

i. require any consent or approval not already obtained;

ii. violate any Applicable Law presently in effect and having applicability to it;

iii. Violate the memorandum and articles of association, by-laws or other applicable organisational documents thereof;

iv. violate any clearance, permit, concession, grant, license or other governmental authorisation, approval, judgement, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or

v. create or impose any liens, mortgages, pledges, claims, security interests, charges or Encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;

c. this Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it; and

d. there is no litigation pending or, to the best of such Party"s knowledge, threatened to which it or any of its Affiliates is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfilment of its obligations under this Agreement.

8. Termination

This Agreement shall be effective from the date hereof and shall continue in full force and effect until the Financial Close of the Project is achieved under and in accordance with the Development Agreement, in case the Project is awarded to the Consortium. However, in case the Consortium is either not pre-qualified for the Project or does not get selected for award of the Project, the Agreement will stand terminated upon return of the Bid Security by the NMC to the Bidder, as the case may be.

9. Miscellaneous

a. This Consortium Agreement shall be governed by laws of India.

b. The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the NMC.

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IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.
SIGNED, SEALED AND DELIVERED

SIGNED, SEALED AND DELIVERED





10.7 Appendix A7

Statement of Legal Capacity

(To be forwarded on the letterhead of the Bidder/ Lead Member of Consortium)

Ref. Date:

To,
The Hon"ble Commissioner,
Nagpur Municipal Corporation, Nagpur
Civil Lines, Nagpur

Dear Sir,

We hereby confirm that we/ our members in the Consortium (constitution of which has been described in the application) satisfy the terms and conditions laid out in the RFP document.

We have agreed that ..... (insert member"s name) will act as the Lead Member of our consortium.

We have agreed that ..... (Insert individual"s name) will act as our representative/ will act as the representative of the consortium on its behalf* and has been duly authorized to submit the RFP. Further, the authorised signatory is vested with requisite powers to furnish such letter and authenticate the same.

Thanking you,
Yours faithfully,

(Signature, name and designation of the authorised signatory)
For and on behalf of.....

10.8 Appendix A8

Declaration

(To be forwarded on the letterhead of the Bidder/ Lead Member of Consortium)

Ref. Date:

To,
The Hon"ble Commissioner,
Nagpur Municipal Corporation, Nagpur
Civil Lines, Nagpur

Dear Sir,

We hereby confirm that amounts stated in the Financial Offer of the Bidder are above the minimum amounts mentioned in Clause 6.1 of this RFP document.

We agree that if our Financial Offer is below the minimum amounts mentioned in Clause 6.1 of this RFP, same will be treated as non-responsive Financial Bid.

Thanking you,
Yours faithfully,

(Signature, name and designation of the authorised signatory)
For and on behalf of.....

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Annexure C - Financial Offer

Appendix D1

(Refer Section 6)

Letter Comprising the Financial Offer

Dated:

To,
The Hon"ble Commissioner,
Nagpur Municipal Corporation,
Civil Lines,
Nagpur-1

Sub: Financial Bid for the Project – Development of NMC Orange City Shopping Mall.

Dear Sir,

1. With reference to your RFP document dated_____, I/we, having examined the Bidding Documents and understood their contents, hereby submit my/our Application for the aforesaid Project. The Application is unconditional and unqualified.

2. I/ We acknowledge that the NMC will be relying on the information provided in the Application and the documents accompanying the Application for selection of the Developer for the aforesaid Project, and we certify that all information provided therein is true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the Bid are true copies of their respective originals.

3. This statement is made for the express purpose of our selection as Developer for the development of the aforesaid Project.

4. I/ We shall make available to the NMC any additional information as it may find necessary or require to supplement or authenticate the Application.

5. I/ We acknowledge the right of the NMC to reject our Application without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever

6. I/ We certify that in the last three years, we/ any of the Consortium Members or our/ their Associates have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial NMC or a judicial pronouncement or arbitration award, nor been expelled from any project or contract by any public NMC nor have had any contract terminated by any public NMC for breach on our part.

7. I/ We declare that:

   a. I/ We have examined and have no reservations to the Bidding Documents, including any Addendum issued by the NMC;

   b. I/ We do not have any conflict of interest in accordance with Clauses 4.2.1(c) and 4.2.1(d) of the RFP document;

   c. I/ We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in Clause 8.1.3 of the RFP document, in respect of any tender or request for proposal issued by or any agreement entered into with the NMC or any other public sector enterprise or any government, Central or State; and

   d. I/ We hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 8 of the RFP, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

8. I/ We understand that you may cancel the Bidding Process at any time and that you are not bound to accept any Application that you may receive for the Project, without incurring any liability to the Bidders, in accordance with Clause 4.23.6 of the RFP document.

9. I/ We believe that we/ our Consortium satisfy(s) the Net Worth and Turnover criterion and meet(s) the requirements as specified in the RFP document.

10. I/ We declare that we/ any Member of the Consortium, or our/ its Associates are not a Member of a/ any other Consortium submitting an Application for the Project.

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11. I/ We certify that in regard to matters other than security and integrity of the country, we/ any Member of the Consortium or any of our/ their Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory NMC which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.

12. I/ We further certify that in regard to matters relating to security and integrity of the country, we/ any Member of the Consortium or any of our/ their Associates have not been charge-sheeted by any agency of the Government or convicted by a Court of Law.

13. I/ We further certify that no investigation by a regulatory NMC is pending either against us or against our Associates or against our CEO or any of our directors/ managers/ employees.

14. I/ We undertake that in case due to any change in facts or circumstances during the Bidding Process, we are attracted by the provisions of disqualification in terms of the guidelines referred to above, we shall intimate the NMC of the same immediately.

15. The Statement of Legal Capacity as per the format at Appendix A7 of the RFP document, and duly signed is enclosed. The power of attorney for signing of Application and the power of attorney for Lead Member of consortium as per format provided at Appendix A4 and Appendix A5 respectively of the RFP, are also enclosed.

16. I/ We understand that the Selected Bidder shall either be an existing Company incorporated under the Indian Companies Act, 1956, or shall incorporate as such prior to execution of the Development Agreement.

17. I/ We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the NMC in connection with the selection of the Bidder, or in connection with the Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.

18. In the event of my/ our being declared as the Selected Bidder, I/we agree to enter into a Development Agreement in accordance with the draft that has been provided to me/ us prior to the Application Due Date. We agree not to seek any changes in the aforesaid draft and agree to abide by the same.

19. I/ We have studied all the Bidding Documents carefully and also surveyed the other project details. We understand that except to the extent as expressly set forth in the Development Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the NMC or in respect of any matter arising out of or relating to the Bidding Process including the award of Concession.

20. I/ We offer a Bid Security of Rs. 20,00,000 Lacs (Rs. Twenty Lacs only) to the NMC in accordance with the RFP Document.

21. I/ We agree and understand that the Application is subject to the provisions of the Bidding Documents. In no case, I/we shall have any claim or right of whatsoever nature ifthe Project is not awarded to me/us or our Application is not opened or rejected.

22. The financial offer has been quoted by me/us after taking in to consideration all the terms and conditions stated in the RFP, draft development agreement, our own estimates of cost and after a careful assessment of the site and all the conditions that may affect the project cost .and implementation of the project

23. I/We agree and undertake to abide by all the terms and conditions of the RFP document.

24. {WE the consortium Members agree and undertake to be jointly and severally liable for all the obligations of the Developer under the Development Agreement till completion of complete sales of the Projects in accordance with the development agreement.}.

25. I/We shall keep this offer valid for 180 (One hundred and eighty) days from the application due Date specified in RFP.

In witness thereof, I/We submit this Bid under and in accordance with the terms of the RFP document.

Yours faithfully

Date: (Signature, name and designation of the Authorized signatory)

Place: Name and seal of Bidder/ Lead Member

Note: Paragraphs in curly parenthesis may be omitted by the Bidder, if not applicable to it, or modified as necessary to reflect Bidder-specific particulars.

Annexure C1 - Financial Offer Format:

Dated: [●], 2021

To
The Municipal Commissioner
Nagpur Municipal Corporation,
Mahanagar Palika Marg, Civil Lines,
Nagpur.

Sub: Financial Bid for Selection as Developer for the NMC Orange City Shopping Mall Project.

Dear Sir,

1. With reference to your RFP dated_____, we, having examined the Bidding Documents and understood their contents, hereby submit our Financial Quote for the aforesaidProject.

2. The Financial Quote is unconditional and unqualified.

3. We hereby offer the Maximum Lump-sum Financial Offer of_____(in words.....) over and above the minimum of Rs 45 crores (Rupees Forty Five crores) (i.e. Rs 45 crores plus the quoted amount) in respect of the Maximum Lump-sum Financial Offer to be paid to NMC from the Sale Proceeds of various components of the Project.

4. We agree to keep this offer valid for 180 (one hundred and eighty) days from the Bid Due Date.

5. We agree and undertake to abide by all the terms and conditions of the RfP.

In witness thereof, we submit this Financial Quote under and in accordance with the terms of the RfP.

Yours faithfully,

Date: [●], 2021(Signature, name and designation of the Authorized signatory)

Place:

DEVELOPMENT AGREEMENT

BETWEEN

**NAGPUR MUNCIPAL CORPORATION NAGPUR,
MAHANAGAR PALIKA MARG, CIVIL
LINES, NAGPUR 440001(M.S)**

AND

**M/s PRAFULVED INFRA PVT.LTD.
F NO 501, SHRIKRISHNA RESIDENCY, DHARAMPETH, NAGPUR
MAHARASTRA, 440010**

FOR

**DESIGN, BUILD, FINANCE, OPERATE and SALE OF
MULTI UTILITY SHOPPING MALL WITH OFFICE SPACES at NMC
ORANGE CITY SHOPPING MALL site at NAGPUR (Next to Jaiprakash Nagar
Metro Station)**

Issued by:

NAGPUR
MUNICIPAL CORPORATION

Office of the Executive Engineer (Project), Civil Lines, Mahanagar Palika Marg, Nagpur.

Telephone: 0712-254283

Email: eeprojectnmc@gmail.com

VOLUME III

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Schedule A: Context

1.1 CONSTRUCTION METHODOLOGY AND SCHEDULE

1.1.1 To the extent of minimum 90% the whole site shall be handed over immediately on signing of agreement.

1.1.2 The Estimated cost of the buildings has been assumed to be constructed in RCC framed structure. The successful bidder will have to prepare the structural design with all the internal dimensions of various rooms, passages, toilets, stairwell etc. shown in the approved floor plan drawings from the concerned building permission department.

1.1.3 The formwork for slabs and beams should have the supporting system to achieve the de-shuttering in timeframe indicated in IS 456-2000. The formwork shall be assembled with the help of wedges and pins with minimum use of nuts and bolts with total elimination of nails. The formwork shall sustain the load of fresh concrete with construction equipment and labour. The RCC ceilings shall be form finish without requirement of plaster with proper line and level and plumb to accept further finishing and painting works.

1.1.4 The work in sub and superstructure will be carried out on as per specifications mentioned and the payment towards executed work will be released as per breakdown schedule enclosed. The work in substructure and superstructure to includes the following.

1.1.4.1 All the RCC work as per approved structural design and drawing.

1.1.4.2 The Main Entrance Doors to the individual flats shall be 45min Fire Rated Tuf-wud (1st quality Malaysian Hardwood) or equivalent approved frames and 45mm thick asbestos free composite - 3 criteria - fire, heat and smoke check Acoustic Door Shutter with flame guard of 60 minutes IS3614 part -II. Internal Doors metal cold rolled GI hollow door frames and Flush door shutters for rooms with veneer. Door frames of approved green marble and FRP door shutters for WC and Bath. GI metal 2 hrs. Fire rated Doors for staircases. Aluminum windows with glazing, MS fabrication work, flooring, dado, internal water supply lines, cocks, kitchen counter with dado with stainless steel sink, internal and external texture painting (with guaranty of 10 years) with approved surface preparation, skirting, electrification, nahani traps, sanitary pipes, sanitary fittings, sanitary ware, vertical PVC-SWR 11 waste water pipes and CPVC pipes, stairwell treads flooring, landings, glazing, oil painting, water proofing of all toilets, refuge areas and terrace slab, parapets with painting, electrical work including high side (transformers, cables routing external street lighting etc.) and low side (internal wiring/cabling, distribution boards, switch plates etc.), firefighting work etc. as directed by the Authority's Engineer / PMC.

1.1.5 The contractor has to submit the final detailed internal and external electrical and plumbing layout and shall obtain approval of authority. The internal toilet plumbing work shall be concealed and routed through walls and floors, as per approved routing. Also, internal electrical wiring shall be concealed and as per requirements along with common area lighting as stipulated in DBR. The contractor shall maintain the fixture height as indicated in the Architectural drawings.

1.1.6 All the works stated above are to be carried out as directed by Authority's Engineer / PMC and as per the specifications stated elsewhere in NIT (Volume I, Volume II, Volume III and Volume IV and Specification) etc. As per the detailed geotechnical investigation carried out by the contractor and structural design duly

to approved through IIT / NIT, duly approved by competent authority contractor shall execute the work as per the detailed specification mentioned hereafter.

1.2 ANNEXURE I: EXISTING CONDITION OF THE SITE.

1.2.1 Ownership & Occupants:

1.2.1.1 The Orange city street project, Plot 01 is a locality in the south west of Jayprakash Nagar, Maharashtra.

1.2.1.2 It is Orange City Street Mall.

1.2.1.3 The proposed site is in a prime locality of proposed Orange City Street due to its proximity to Commercial area and metro station

1.2.1.4 This site also has a big advantage of Public Amenities like Multiplex, Schools, Hospitals, Police station and Market.



1.2.2 Road network:

1.2.2.1 The site abuts 24m wide internal road

1.2.2.2 The site location is such that it gets easy access to Wardha road and ring road which further links to other parts of the city.

1.2.2.3 There are 2 entrances to avoid vehicular congestion within the site.

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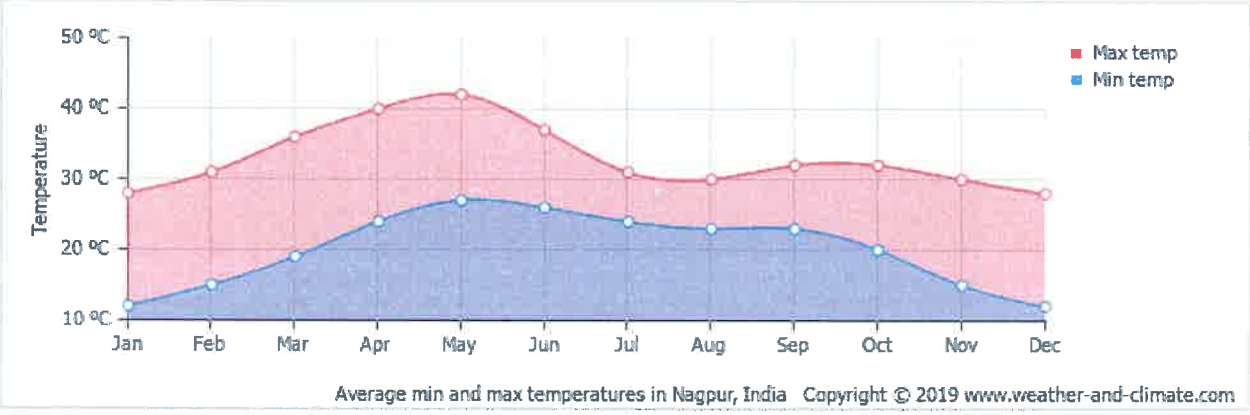
1.2.3 Surrounding:

1.2.3.1 The site is surrounded by Housing to the north and south, there is National Highway to the south east of the site.

1.2.3.2 This site also has a big advantage of Public Amenities i.e Metro, proposed city bus stops and the airport is about 1 Km radius from the site.

1.2.4 Climatology:

1.2.4.1 Nagpur has a tropical savannah climate with dry prevailing conditions for most of the year. It receives about 150mm rainfall in the month of June. The amount of rainfall increases to 294 mm in the month of July. Gradual decrease in rainfall has been observed from July to August (278 mm) and September (168 mm).



1.2.4.2 The warmest months of the year are March, April and May being the hottest of the months. Winter last from November to January.

1.2.4.3 The monsoon creates steady strong winds from December to April, and calm winds from June to October.

1.2.4.4 Source: Website- www.weather-and-climate.com

1.2.5 Topography:

1.2.5.1 Nagpur is located in the exact center of the Indian peninsula. The city has a zero mile locating the geographical center of India. Used earlier for measuring distances in India

1.2.5.2 The underlying rock strata are covered with alluvial deposits resulting from the flood plain of the Kanhan River.

Refer attached Site Survey Plan.

Schedule A: Context

1.3 PROPOSED DEVELOPMENT PROGRAM

SR. NO.	DESCRIPTION	AREA IN SQM
1	PLOT AREA	3308.567
2	TOTAL AREA OF PLOT IN POSSESSION	3308.567
3	PERMISSIBLE FSI	4
4	PERMISSIBLE BUILTUP AREA (2-3)	13234.26
5	PROPOSED TOTAL BUILTUP AREA	10629.63
6	BALANCE BUILTUP AREA	2604.633
7	FSI CONSUMED	3.213

1.4 DESCRIPTIVE PROGRAM

Project Name : Orange City Street Mall

Project Details : Plot Area: 35600 Sq. ft.

Total Built-up Area : 114400 Sq. Ft.

45m high G+8 Building with two Basement Floors

Retail Space: 94 No. of 45000 Sq. ft. Area (1st to 4th Floor)

Office Space : 56 No. of 55000 Sq. ft. Area (5th to 8th Floor)

Parking Space: 74 Four Wheelers

79 Two Wheelers

107 Cycles

Project Cost : 53.49 Cr.

As per fire norms all units accessible by 1.3 m wide corridor connected by 2 staircases and 4 no's passenger lifts and 1 no's Escalator.

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1.5 Applicable Standards and Compliances

1.5.1 INDIAN STANDARD CODES (STRUCTURAL)

Following codes are used in analysis and design:

IS 456: 2000 Plain and Reinforced Concrete Code Of Practice

IS 875 (Part I) : 1987 Code of Practice For Design Loads (Other Than Earthquake) for buildings and structures- Dead Loads

IS 875 (Part II) :1987 Code of Practice For Design Loads (Other Than Earthquake) for buildings and structures - Imposed Loads

IS 875 (Part III) :1987 Code of Practice for Design Loads (Other Than Earthquake) for buildings and structures - Wind Loads

IS 875 (Part v):1987 Code of Practice for Design Loads (Other Than Earthquake) for buildings and structures – Special Loads and Combinations.

IS1893: 2016 (Part I): Criteria for Earthquake Resistant Design of Structures (Part I –

General Provisions and Buildings)

IS1893: 2016 (Part II): Criteria for Earthquake Resistant Design of Structures (Part II –

Liquid Storage Tanks – Elevated and Ground Supported)

IS 432: Specification for Mild Steel and medium Tensile Steel bars and Hard Drawn Steel

Wire for concrete reinforcement.

IS: 1786: High Strength deformed steel bars and wires for concrete reinforcement.

IS: 4326: Code of Practice for Earthquake resistant design and construction of buildings.

IS: 13920:2016 Ductile Detailing of Reinforced Concrete Structures Subjected to

Seismic force

IS 1080: Code of Practise for design and construction of shallow foundations in soils (other than raft, ring and shell),

IS: 1904: Code of Practice for design and construction of foundations in soils general requirement.

IS: 2950 (Part 1): Code of practice for design and construction of raft foundations.

IS 3370 (Part 1 to 4): Code of practice for design of concrete structures for the storage of the liquids.

SP:16: Design Aids fr Reinforced concrete to IS 456:1978

SP: 24: Explanatory Handbook on Indian Standard Code of Practice for Plain an Reinforced concrete.

SP: 34: Hand book of Concrete Reinforcement and detailing.

4.1.1 CONCRETE

(a) Cement

Generally Ordinary Portland cement (OPC) confirming to IS: 8112 or Portland pozzolana cement confirming to IS: 1489 shall be used for superstructure. It is recommended to uses

Portland Slag Cement as per IS 455 of blended OPC with slag for foundations.

(b) Reinforced Cement Concrete (RCC)

Reinforced concrete confirming to Table 2; IS 456-2000 shall be used with 20mm and down size graded crushed stone aggregate unless noted otherwise. The grade of reinforced cement concrete shall be M40

(c) Lean Concrete

Concrete of minimum 100mm thickness of lean concrete mix 1: 1 ½: 3 (by weight, using

20mm and down size grade crushed stone aggregate) shall be provided under all RCC foundations.

4.1.2 REINFORCEMENT BARS

a) High strength Thermo Mechanically Treated (TMT) steel bars of grade FE-500D, confirming to IS:1786 with minimum elongation of 14.5%

4.1.3 AGGREGATES

Selected aggregates of proper sizes and in conformity of IS:383.

1.4 DURABILITY OF CONCRETE

Minimum recommended grade of concrete for structural elements for exposed surface condition is M25. Nominal cover is 20mm from durability point of view. Fire resistance period is 2 hour minimum.

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The minimum clear cover for various structural elements is as follows

Structural Element Clear Cover (mm)

Slabs 25

Beams 30

Column 40

Footings 50

Retaining wall 40

Structure elements underground 50

4.1.5 MINIMUM THICKNESS OF STRUCTURAL CONCRETE ELEMENT

Structural Element Minimum Thickness(mm)

Beam width 200

Floor slab 125

Columns 300

Shear Wall 200

1.5.2 INDIAN STANDARD CODES (FIRE FIGHTHING)

1. National Building Code of India 2016: Part 4
2. National Fire Protection Association (NFPA)
3. IS 15105: Design and Installation of Fixed Automatic Sprinkler Fire Extinguishing Systems
4. IS 3844: Installation and Maintenance of Internal Fire Hydrants And Hose Reels On Premises
5. IS 15683: Portable Fire Extinguishers
6. IS 2878: Fire Extinguisher, Carbon Dioxide Type (Portable and Trolley Mounted)
7. IS 1239: Galvanize iron pipe
8. IS 1239 (Part 1:2004) : Steel Tubes, Tubular and Other Wrought Steel Fittings – Specification
9. IS-1239 (Part 2: 1992) : Mild steel tubes, tubular and otherwrought steel fittings, Part 2 Mild steel

a. Tubular and other wrought steel pipefittings.

10. IS-3589:2001: Steel Pipes for Water and Sewage (168.3to 2540 mm Outside Diameter) –Specification

11. IS-778: 1984 : Specification for Copper Alloy Gate, Globe and Check Valves for Waterworks Purposes
12. IS14846: 2000 : Sluice Valve for Water Works Purposes (50 to 1200 mm Size) – Specification
13. BS-5155: 1984: Specification for butterfly valve.
14. IS-903 : 1993 : Specification for fire hose delivery, couplings, branch pipe, nozzles and nozzle spanner
15. IS-5290: 1993 : Specification for landing valves
16. IS-636 : 2004 : Non-percolating flexible firefighting delivery hose
17. IS-5: 2007 : Colors for Ready Mixed Paints and Enamels

1.5.3 INDIAN STANDARD CODES (PLUMBING)

1. National Building Code of India 2016 : Part 9
2. Relevant BIS Codes
3. Uniform Plumbing Code of India: 2008 Edition
4. Manual on Water Supply and Treatment, 1999, Central Public Health and Environmental Engineering Organization (CPHEEO)
5. Handbook On Water Supply And Drainage With Special Emphasis On Plumbing (BIS)
6. IS: 783 - Code Of Practice For Laying Of Concrete Pipes
7. IS 15778:2007 Chlorinated Polyvinyl Chloride (Cpvc) Pipes For Potable Hot And Cold Water Distribution Supplies — Specification
8. ASTM D 2846/D 2846M–Chlorinated Polyvinyl Chloride (CPVC) Plastic Hot- and Cold-water Distribution Systems
9. Gift Ready Reckoned Blue Book
10. IS: 2556 - 1974 (part I): vitreous sanitary appliances (vitreous china) — specification general requirements
11. IS: 2556 - 1981 (part - ii): specific requirements of wash down water closets
12. IS: 2556 - 2004 (part - iii): specific requirements of squattingpans
13. IS: 1703 -2000 : water fittings —copper alloy floatyalves (horizontal plunger type) — specification
14. IS: 775 – 1970: specification for cast iron brackets and supports of for wash basins and sinks
15. IS: 2548 – 1983 : plastic seats and covers for water-closets
16. IS: 2326 – 1987: automatic flushing cisterns for urinals
17. IS: 1729 - 1979: cast iron pipes - cast iron pipes & fittings
18. IS: 3989 – 1984: centrifugally cast (spun) iron spigot and socket soil, waste, ventilation and rainwater pipes, fittings, and accessories
19. IS: 1239 - 1979: steel tubes, tubulars and other wroughtsteel fittings — specification

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20. IS: 4736 – 1986: hot-dip zinc coatings on mild steel tubes
21. IS: 554 – 1985: pipe threads where pressure-tight joints are made on the threads
22. IS: 1879 - 1987malleable cast iron pipe fittings –specification
23. IS: 780 – 1984 / is14846sluice valve for water works purposes
24. IS: 778 - 1984 copper alloy gate, globe and check valves.
25. IS: 2692 – 1978ferrules for water services and specification
26. IS: 651 – 1980glazed stoneware pipe and fittings
27. IS: 458 – 1971precast concrete pipes
28. IS: 3989 - 1989cast iron pipe & fittings - ci spun pipe & fittings
29. IS: 782 – 1966specification for caulking lead
30. IS: 1200methods of measurement of works of building
31. IS: 782specification for caulking lead

1.5.4 Design of concrete and steel structures

- IS: 456 – code of practice for plain and reinforced concrete.
- IS: 383 – specifications for fine & coarse aggregate from natural sources for concrete.
- IS: 2386 – methods of tests for aggregate for concrete.
- IS: 2430 – methods of sampling.
- IS: 4082 – specifications for storage of materials.
- IS: 2116 – permissible clay, silt & fine dust contents in sand.
- IS: 2250 – compressive strength test for cement mortar cubes.
- IS: 269 – specifications for 33 grade OPC.
- IS: 8112 – specifications for 43 grade OPC.
- IS: 12269 – specifications for 53 grade OPC.
- IS: 455 – specifications for PSC (Portland slag cement).
- IS: 1489 – specifications for PPC (Portland pozzolana cement).
- IS: 6909 – specifications for SSC (super sulphated cement).
- IS: 8041 – specifications for RHPC (Rapid Hardening Portland cement)
- IS: 12330 – specifications for SRPC (sulphate resistant portland cement).
- IS: 6452 – specifications for HAC for structural use (high alumina cement).
- S: 3466 – specifications for masonry cement.
- IS: 4031 – chemical analysis and tests on cement.
- IS: 456; 10262; SP 23 – codes for designing concrete mixes.
- IS: 1199 – methods of sampling and analysis of concrete.
- IS: 516 – methods of test for strength of concrete.

- IS: 13311 – ultrasonic testing of concrete structures.
- IS: 4925 – specifications for concrete batching plant.
- IS: 3025 – tests on water samples
- IS: 4990 – specifications for plywood formwork for concrete.
- IS: 9103 – specifications for concrete admixtures.
- IS: 12200 – specifications for PVC (Polyvinyl Chloride) water bars.
- IS: 1077 – specifications for bricks for masonry work.
- IS: 5454 – methods of sampling of bricks for tests.
- IS: 3495 – methods of testing of bricks.
- IS: 1786 – cold-worked HYSD steel rebars (grade Fe415 & Fe500).
- IS: 432; 226; 2062 – mild steel of grade I.
- IS: 432; 1877 – mild steel of grade II.
- IS: 1566 – specifications for hard drawn steel wire fabric for reinforcing concrete.
- IS: 1785 – specifications for plain hard drawn steel wire fabric for prestressed concrete.
- IS: 2090 – specifications for high tensile strength steel bar for prestressed concrete.
- IS: 2062 – specifications for steel for general purposes.
- IS: 226 – specifications for rolled steel made from structural steel.
- IS: 2074 – specifications for prime coat for structural steel.
- IS: 2932 – specifications for synthetic enamel paint for structural steel.
- IS: 12118 – specifications for Polysulphide sealants

1.5.5 LIST OF INDIAN STANDARDS

(A) Cement

1. Specification for 33 Grade ordinary portland cement IS 269 - 2015
2. Specification for Rapid hardening portland cement IS 8041 - 1990
3. Specification for portland Pozzolona cement IS 1489 (part 1&2) 1991
4. Methods of physical test for hydraulic cement IS 14032 - 1988
5. Method of chemical analysis of hydraulic cement IS 4032 - 1985
6. Method of sampling for hydraulic cement IS 3535 - 1986
7. standard sand testing of cement IS 650 - 1991
8. Specification for 43 Grade OPC... IS 8112 - 2013
9. Specification for 53 Grade OPC... IS 12269-1987

(B) Coarse / Fine Aggregate

1 Specification for coarse & fine aggregate IS 383-1970

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2 Methods of test for aggregate for concrete particle size and shape IS 2386 (Part I) 1963

3 Methods of test for aggregate for concrete estimation of deleterious materials and organic impurities. IS 2386 (Part II) 1963

4 Methods of test for aggregate for specific gravity, density, voids, absorption & bulking IS 2386 (Part III) 1963

5 Methods of test for aggregate for Mechanical properties. IS 2386 (Part IV) 1963

6 Methods of test for aggregate Soundness IS 2386 (Part V) 1963

7 Methods of test for aggregate measuring mortar making properties of fine aggregates.IS 2386 (Part VI) 1963

8 Methods of test for aggregate for alkali-aggregate reactivity IS 2386 (Part VII) 1963

9 Methods of test for aggregate for petrographic examination IS 2386 (Part VIII) 1963

(C) Bricks

1 Method of sampling of clay building bricks IS 5454 - 1978

2 Method of test for burnt-clay building bricks. IS 3495 (Parts I TO iv) 1976

3 Common burnt clay building bricks. IS 1077 – 1992

(D) Masonry Mortar

1 Specification for sand for masonry mortars. IS 2116 - 1980

2 Code of practice for preparation and use of masonry mortar IS 2250 – 1981

(E) Cement Concrete

1 Specification for coarse and fine aggregate. IS 383 - 1970

2 Specification for compressive strength, Flexural strength IS 516 - 1959

3 Code of Practices for Plain & reinforced concrete etc. IS 456 – 2000

4 Methods of sampling and analysis of concrete IS 1199 – 1959

5 Recommended Guide Lines for Concrete Mix Design IS 10262 – 1982

(F) Curing Compound

1 Standard test method for water retention & daylight reflection test on concrete. ASTM-C-156809

2 The standard method of test for the effect of organic materials in fine aggregate on strength of mortar. ASTM-C. 87-69

3 Specifications for liquid membranes forming compounds. ASTM C. 309-89

(G) PVC Water Stops

1 Code of practice for the provision of water stops. IS 12200 – 1987

2 Procedure for Testing Parts of IS 8543-19

3 Standard Test Methods for Tensile Properties of Plastics. ASTM : D 638-1991

4 Standard Test Methods for Thermoplastic Elastomers-Tension. ASTM : D 412-1992

(H) HYSD BARS

1 Specifications for HYSD bars. IS 1786 – 1985

2 Specification for Mild Steel and Medium Tensile steel bars. IS 432 (P II) 1966

3 Method for Tensile testing of steel wires. IS 5121 – 1972

4 Hard drawn steel wire for concrete reinforcement. IS 1566 – 1982

5 Method for Tensile testing of Steel products IS 1608 – 1972

6 Code of practice for bending & fixing of bars for concrete reinforcement IS 2502 – 1963

(I) Pre cast R.C.C. Pipes

1 Specifications for pre cast concrete pipes. IS 458 – 1988

2 Methods of Tests for concrete pipes. IS 3597 – 1985

(J) Soil

1 Preparation of dry sample (soil) IS:2720 (Part .I) 1983

2 Determination of water content (moisture content) IS:2720 (Part .III) 1980 Sect/1

3 Determination of specific gravity of fine-grained soil IS: 2720 (Part. III) 1980 Sect/2

4 Determination of specific gravity of fine, medium & coarse-grained soil. IS: 2720 (Part. III) 1980 Sect/2

5 Grain size analysis IS:2720 (Part.4) 1985

6 Determination of Liquid and plastic limit IS:2720 (Part.5) 1985

7 Determination of shrinkage factors IS: 2720 (Part. VI) 1987

8 Determination of water content - dry density relation using light compaction. IS: 2720 (Part. VII) 1980

9 of water content - dry density relation using heavy compaction.IS:2720 (Part.8) 1983

10 Determination of water content - dry density relation using constant wt. soil method. IS:2720 (Part IX) 1971

11 Determination of Unconfined compressive strength IS: 2720 (Part. X) 1991

12 Determination of shear strength parameters(tri-axial) with out measurement of pore pressure parameters(Tri-axial compaction) IS:2720(Part. XI) 1971

13 Determination of shear strength parameters (Tri-axial compaction)IS: 2720 (Part. XII) 1981

14 Direct shear test IS: 2720 (Part. XIII) 1986

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15 Determination of Density Index (R.D) of cohesion less soil.IS:2720 (Part.14) 1983

16 Determination of consolidation properties IS:2720 (Part.15) 1986

17 Determination of permeability IS:2720 (Part.17) 1986

18 Determination of dry density of soils, in place by the sand replacement method. IS:2720 (Part.28) 1974

19 Determination of dry density of soils, in place by the core-cutter method.IS:2720 (Part.29) 1975

20 Laboratory vane shear test. IS:2720 (Part.30) 1980

21 Determination of the density in place by the ring and water replacement method.IS:2720 (Part.33) 1971

22 Determination of free swell index of soils IS: 2720 (Part. XI) 1977

23 Measurement of swelling pressure of soils. IS: 2720 (Part. XII) 1978

24 Classification and identification of soils for General Engineering purposes.IS:1498 1970

IS 4963 : 1987 Recommendations for buildings and facilities for physically handicapped (first revision)

PART 3 DEVELOPMENT CONTROL RULES AND GENERAL BUILDING REQUIRMENTS 7

IS 8888 (Part 1) : 1993 Guide for requirements of low income housing : Part 1 Urban area (first revision)

IS 13727 : 1993 Guide for requirements of cluster planning for housing

IS 4963 : 1987 is under revision, the provisions of revised version of this standard shall be referred when available.

In revising the provisions of this Part, assistance has also been derived from the following publications:

Urban and Regional Development Plans Formulation and Implementation Guidelines, 2014, Town and Country Planning Organization

IRC : 103-2012 Guidelines for Pedestrian Facilities (first revision)

ISO 21542 : 2011 Building construction . Accessibility and usability of the built environment

1.5.6 INDIAN STANDARD CODES (ELECTRICAL)

1.	METERS (MEASURING) FOR ANALOG METERS	IS:1248-1986
2.	INSTALLATION AND MAINTENANCE OF SWITCH GEARS	IS:3072-1975
3.	CODE OF PRACTICE FOR EARTHING	IS:3043
4.	H.D. AIR BREAKER, SWITCH GEARS AND FUSES FOR VOLTAGE NOT EXCEEDING 1000 VOLTS	IS:4047-1977
1.	SELECTION, INSTALLATION AND MAINTENANCE OF FUSES UP TO 650 VOLTS	IS:8106-1966
2.	GENERAL REQUIREMENTS FOR SWITCH GEAR AND GEAR FOR VOLTAGE NOT EXCEEDING 1000 VOLTS	IS:4237-1967
7.	DEGREE OF PROTECTION PROVIDED BY ENCLOSURES FOR LV S/GEARS	IS:2147-1962
8.	INSULATED CONDUCTOR RATING	IS:8084-1972
9.	ENCLOSED DISTRIBUTION FUSE BOARDS AND CUT-OUTS FOR VOLTAGE NOT EXCEEDING 1000 VOLTS	IS:2675-1983
10.	MINIATURE CIRCUIT BREAKER	IS:8828-1978

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11.	FUSE WIRE USED IN RE-WEARABLE TYPE ELECTRIC FUSES UP TO 650 VOLTS	IS:9926-1981
12.	PVC INSULATED ELECTRIC CABLES HEAVY DUTY	IS:1554 (PART I)
13.	RECOMMENDED CURRENT RATING FOR CABLES	IS:3961(PART II)
14.	COPPER CONDUCTOR IN INSULATED CABLES AND CORES	IS:2982
15.	CONDUCTOR FOR INSULATED ELECTRIC CABLES AND FLEXIBLE CORDS	IS:8130
16.	MILD STEEL WIRES, STRIPS AND TAPES FOR ARMOURING CABLES	IS:3975
17.	PVC INSULATION AND SHEATH OF ELECTRIC CABLES	IS:5831
18.	ALUMINIUM CONDUCTOR FOR INSULATED CABLES	IS:1753
19.	PVC INSULATED AND PVC SHEATHED SOLID ALUMINIUM CONDUCTOR CABLES OF VOLTAGE RATING NOT EXCEEDING 1100 VOLTS	IS:4288
20.	RECOMMENDED CURRENT RATING FOR CABLE	IS: 961
21.	CODE OF PRACTICE FOR ELECTRICAL WIRING INSTALLATION SYSTEM VOLTAGE NOT EXCEEDING 650 VOLTS	IS: 732
22.	CODE OF PRACTICE FOR FIRE SAFETY OF BUILDINGS GENERAL)ELECTRICAL INSTALLATION	IS: 1646
23.	RIGID STEEL CONDUITS FOR ELECTRICAL WIRING	IS:1653
24.	FITTINGS FOR RIGID STEEL CONDUITS FOR ELECTRICAL WIRING	IS:2667
25.	FLEXIBLE STEEL CONDUIT FOR ELECTRICAL WIRING	IS:3480
26.	ACCESSORIES FOR RIGID STEEL CONDUITS FOR ELECTRICAL WIRING	IS:3837

27.	PVC INSULATED CABLES (WIRES)	IS:694
28.	RIGID NON-METALLIC CONDUITS FOR ELECTRICAL WIRING	IS:2509
29.	FLEXIBLE (PLAYABLE) NON-METALLIC CONDUITS FOR ELECTRICAL INSTALLATION	IS:6946
30.	THREE PIN PLUGS AND SOCKETS	IS:1293
31.	CONDUCTORS FOR INSULATED ELECTRICAL CABLES AND FLEXIBLE CODES	IS:8180
32.	SPECIFICATION FOR CONDUIT FOR ELECTRICAL INSTALLATION	IS:9537-1980
33.	ACCESSORIES FOR NON-METALLIC CONDUITS FOR ELECTRICAL WIRING	IS:3419
34.	SWITCHES7	IS:3854
35.	PLUGS	IS:6538
36.	SHUNT CAPACITORS FOR POWER SYSTEMS	IS:2834-1954
37.	HRC CARTRIDGE FUSES AND LINKS UP TO 660 VOLTS	IS:2208
38.	GENERAL AND SAFETY REQUIREMENT FOR LIGHTING FITTINGS	IS:1913-1969
39.	CODE OF PRACTICE FOR LIGHTING PUBLIC THOROUGH FARES	IS:2944-1981
40.	WATERPROOF ELECTRIC LIGHTING FITTINGS	IS:3528
41.	WATER TIGHT ELECTRIC LIGHTING FITTING	IS:3553-1966
42.	MILD STEEL TUBULAR AND OTHER WROUGHT STEEL PIPE FITTING	IS:1239-1958
43.	LUMINARIES FOR STREET LIGHT	IS:2149-1970
44.	HRC FUSES HAVING RUPTURING CAPACITY OF 90 KA	IS:9224
45.	EXHAUST FAN	IS:2312-1967

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46.	CLASS I CEILING FAN	IS:374-1979
47.	DANGER NOTICE BOARDS	IS: 2551

NOTE:

All codes and standards means the latest where not specified otherwise the installation shall generally follow the Indian Standard codes of practice or relevant British Standard Codes of Practice in the absence of corresponding Indian Standards.

Schedule B

GENERAL DESCRIPTION AND SCOPE OF WORK

B.1 The brie scope of work shall be Construction of Proposed NMC Orange City Mall for Orange City Street at Nagpur (Ground+8 Floors) along with on-site infrastructure development through Detailed structure Design, Engineering, and Procurement & Construction of Building(s) Work including Civil, Sanitary & Plumbing, Water Supply, electrical, elevators and other allied works as per specification through Engineering , Procurement and Construction (EPC). The scope of work also includes construction of podium, electrical sub-station, firefighting, DG set room, pump house, UG water tank, compound wall, gates, security cabins, service providers room, landscaping, parking area, driveways, ramps, rain water harvesting etc. in on-site infrastructure development.

B.2 The work is to be executed on **DETAILED DESIGN, ENGINEERING, PROCUREMENT AND CONSTRUCTION (on EPC Contract) basis**. The EPC Contractor shall prepare the detail Design & Construction Drawings. The EPC Contractor shall also submit complete Building Design (including Structure, electrical, plumbing, Firefighting etc.) for necessary checking by the Consultants. The designs for building and ancillary structures are to be got proof checked and vetted from IIT/NIT.

B.3 EPC Contractor has to get the design vetted by IIT / NIT or equivalent Government Institute. The Design / Detail Drawings and Schemes shall have to be got approved from the Competitive Officer of the authority. Red Book Specifications, relevant IS Codes, National Building Code 2016, Medical Council of India (MCI) guidelines and other standard specifications suitable for Modern High rise Residential buildings and latest technology will be followed in general except otherwise mentioned in Bidding Document. Samples of the materials of approved make or sample of materials for which approved make is not available shall be got approved from the Authority's Engineer / PMC before use in the work. However, Final Acceptance will be made by Authority. Cost of appointing IIT/NIT and proof checking work will be borne by the Contractor, and Contractor shall submit "Design Basis Report" with all design calculations and design drawings through Authority's Engineer / PMC to IIT/NIT and do liaison work for early completion of proof checking task. Any delay on account of completion of proof checking resulting out of laxity in providing details to IIT/NIT as stated earlier by the Contractor shall attract action in terms of Contract Provisions.

B.4 EPC Contractor's scope of work includes preparation of complete structural design & Drawings, Construction & Commissioning of Building along Plumbing, Electrical, Firefighting and other civil works. All GFC drawings shall be prepared by the Contractor and got it approved by Engineer-in charge. The Structural design by the Contractor shall be without changing any concept architectural and MEP details provided (without any variation

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in carpet area). The design and drawings for structure and MEP (services viz. Electrical, Plumbing and Firefighting) shall be completed including proof checking from IIT/NIT within 45 days after LOA, at their own cost and within a framework of 18 months for completion of project. Also, all the GFC drawings including Structural and services MEP drawings will be approved in coordination with Architect.

B.5 Obtaining mandatory approvals from Local Bodies / State & Central Authorities / Municipal Corporation etc. shall be in the scope of the contractor in case of any deviation in design or master plan from the drawings submitted by the Project Consultant. All other Approvals as per latest Building with up to date corrections slips, necessary Environmental Clearance from the Appropriate Authority, NOC from Fire Department, NOC from Airport Authority of India, Atomic Energy Regulatory Board (AERB), Govt. of India etc. and any other statutory Approval etc. would be required in case of any deviation from the approved drawings. MCI / AERB / Central Licensing Approving Authority etc. related to building, approval from Authorities required for commencing the work, execution of work & services and handing over the assets after making them habitable in all aspects.

B.6 All the Testing of materials, workmanship to be done as per specification and instruction of Authority's Engineer / PMC

B.7 All the Statutory compliances / labour laws / insurance shall be complies as per Central / state / local Authorities.

B.8 The scope of Works & Specifications are given in general but they are not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and / or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works (like site enabling works, barricading, mobilization, demobilization of equipment, plants etc.), which are not mentioned in the contract document / specifications but will be necessary to complete the work shall be deemed to have been included in the overall amount quoted by the contractor for various components of work. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation / change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Authority's Engineer / PMC. Nothing extra shall be payable on this account.

Brief Scope of Work for this Tender :

- Structural work
  - RCC work including form work
  - Reinforcement work
  - Expansion joint
- Masonry work
  - AAC block masonry
  - Rubble masonry
- Plaster (Internal and External)
  - 12mm thick in single coat in cement mortar 1:4
  - 2mm thick wall care putty
  - sand faced plaster at external face
- Waterproofing
  - Chemical and BBCC water proofing at toilet and bath
  - Terrace water proofing
  - OHT water proofing
  - Water proofing at UGT and lift pit
- Floor and Wall finishes
  - Vitrified Tile flooring and skirting
  - Ceramic Tile flooring and dado
  - Granite stone flooring and skirting
  - Kota stone at flooring, skirting, treads and risers
  - Tremix at parking areas.
- Timber, metal joinery for Doors / Windows
  - Flush door with metal frame
  - Fiber glass reinforced polyester door with frame
  - 2hrs. Fire rated metal doors, 1hr. fire rated wooden doors
  - Aluminium windows, Ventilator
- Sundry metal works
  - Mild steel safety grill
  - Mild steel entrance gate
  - Rolling shutters
  - M.S. and Stainless steel railing, handrail

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- Gypsum False ceiling
- Painting (Internal and External)
  - Plastic emulsion paint
  - Texture paint
- Driveway and parking areas

B.9 In case, some of descriptions are missing in scope of work or specifications in the Bidding Documents shall be executed in the CPWD Specifications, NBC-2016 (National Bidding Code 2016) , IS Codes or according to sound engineering practices so as to make the building including related services fully functional. No claim whatsoever may be entertained at later stage. All cost of providing and making buildings with services, landscape and horticulture works fully complete in all aspect unless specifically mentioned in the contract document and making buildings with services fully functional are included in the cost tendered for this work.

B.10 Defects Liability Period from the date of certified final completion of the contract in all respect

a)	Waterproofing of Terrace, WC, Bath, Kitchen Sink, Balconies, Decks, Lift Machine Room Roof, Water Tanks, chajjas, Basement etc.	:	10 (Ten) Years
b)	Building Structure	:	10 (Ten) Years
c)	Anti-termite Treatment	:	10 (Ten) Years
d)	Seepage & Dampness through Walls	:	10 (Ten) Years
e)	Transformers	:	5 (Five) Years
f)	D.G. Sets	:	5 (Five) Years
g)	Lift / Elevators	:	5 (Five) Years
h)	Pumps & Pumping Machinery (Domestic & Fire Fighting)	:	5 (Five) Years
i)	For Balance Work	:	5 (Five) Years

B.11 GUARANTEE FOR SAFETY, SERVICEABILITY AND DURABILITY OF THE STRUCTURES FOR AT LEAST 50 YEARS

i) The Contractor shall ensure that the structure of buildings constructed for the tenements are durable and shall last for a period of at least 50 years.

ii) The strength as well as durability shall be considered explicitly at design stage.

iii) The structure shall be designed for loads and stresses as mentioned in relevant applicable IS Codes and as per provision of NBC. The RCC designs of buildings shall be based on consideration of earthquake forces as per prevailing relevant IS and seismic coefficient shall be

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assumed for calculation of earthquake forces as prevailing in relevant IS codes. The importance factor of the buildings shall be considered as per code.

The importance factor of the buildings shall be considered as 1.2

Following clause of IS 13920:2016 has to be followed but not limited to.

The provisions for RC structures given herein apply specifically to monolithic RC construction, and not for Precast RC structure. Precast and / or prestressed concrete members may be used, only if they are designed to provide similar level of ductility as that of monolithic RC structures during or after an earthquake. Likewise, flat slab structures must have a lateral load resisting system capable of providing similar level of performance as envisioned in this standard and must be designed for drift compatibility as per 11. Specialist literature must be referred to for design and construction of such structures. The adequacy of such designs shall be demonstrated by adequate, appropriate experimentation and nonlinear dynamic structural analysis.

iv) The structure shall therefore be designed for 'Limit state of Serviceability' as well 'Limit state of collapse' to ensure safe performance of structure during service life.

v) For any type of foundation required for buildings in case, the soil and the sub-soil water at the site has high sulphate and chloride content, the contractor shall have to take utmost precautions to obtain a dense, concrete of low permeability.

vi) Relevant applicable design controls; as laid down in IS 456; shall be exercised in respect of wear & deterioration of concrete so as to make the structure to give satisfactory service and safety during its service life by way of limiting actual stress values within permissible limits under intended loads.

vii) In observing the design controls, various code of practice and design guides, which give recommendations on durability, shall be followed. The minimum cement content, water cement ratio, minimum grade of concrete, minimum cover to reinforcement for exposure conditions of environment in Nagpur shall be strictly followed.

viii) The mix design for concrete of various grades, shall be as per latest relevant IS specifications keeping in view both strength and durability.

ix) The concrete shall be of low permeability to be durable for 50 years. For this purpose,

a) The concrete shall be strong and dense with sufficient low water cement ratio.
b) The concrete shall be compacted thoroughly.
c) Sufficient hydration of cement shall be ensured through proper curing methods.
d) The aggregate cement ratio for given aggregate shall be sufficient to provide adequate workability with low water cement ratio so that concrete can be compacted with means available with the contractor. Use of plasticizers for workability without increasing the water - cement ratio.

x) The contractor shall be responsible to take and implement adequate measures as laid down in relevant applicable IS codes while designing the sub-structure to ensure non-deterioration of

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foundations under the presence of sulphate and chlorides in the soil/ sub-soil water as revealed during actual geotechnical investigation of the project site(s).

xi) The sub-structure as well as super-structure shall be designed for relevant Exposure condition and / or as revealed from site investigations and shall be conforming to applicable IS provisions to ensure safe performance of structure during service life.

xii) Contractor shall take into considerations the creep and long term deflection criteria during service life for various prefab structural elements and accordingly ensure the adequacy of sections in conformity with IS provisions.

xiii) The contractor shall ensure desired performance of various joints in prefabricated members during design as well as execution stage so that structural integrity under applicable intended loading conditions will be assured during service life of structure.

xiv) The contractor shall be responsible to design the structure for 'Limit state of Serviceability' limiting the crack width within permissible limits as per IS code to ensure safe performance of structure during service life.

xv) The contractor shall be responsible for damage/deterioration of structural members due to weathering conditions till expiry of Defects Liability Period as prevalent when structure is erected / constructed.

xvi) The NMC shall inspect the building once in a year for its durability and inform the Contractor. The repairs needed except due to lack of proper maintenance shall have to be done by the contractor at their risk and cost.

xvii) The contractor shall ensure that the work is executed with adequate supervision and that the execution of construction complies with the specifications. For this purpose, the contractor shall carryout various tests on materials and finished items as per relevant IS specifications.

xviii) The curing affects primarily the concrete in the cover to the reinforcement and by definition this is the concrete that protects the reinforcement from corrosion by the ingress of aggressive agent. The contractor shall therefore give very special attention to the curing of concrete. The period for curing mentioned in the IS code shall be strictly adhered to. The water used for curing shall be potable.

xix) The contractor shall give special attention to maintain the specified cover during execution as this is very important to transfer the forces in the reinforcement, to provide fire resistance to the steel and to provide an alkaline environment at the surface of the steel.

xx) The Contractor shall ensure in the design that there shall be no excessive deflection, creep & cracks in the structure beyond permissible limits for 50 years.

B.12 IMPORTANT NOTE:

This is an EPC Contract wherein the Contractor is required to do the structural design and construct the buildings taking into account the requirements of the codes, professional practices, etc. It is not possible to describe in details each and every item of the construction. However, some of the specifications of some of the items have been incorporated in the tender to avoid discrepancies and to have an equal basis for comparison amongst the contractors. Certain items may not have been described in the tender, however, they form part of this contract as the contractor is supposed to construct the buildings as per Architect's drawing and complete the same in all respect so as to make the tenements habitable and safe. The drawings and design for all services viz. electrical, sewerage water supply, plumbing & sanitary, rain water disposal, fire-fighting etc. shall be submitted by the contractor and got approved from Authority's Engineer / PMC and NMC.

B.13 SUBMISSION REQUIREMENTS:

Submission shall be made in two copies of reports / write up / design and five copies of drawings shall be given duly signed by the Architect, Licensed Structural Engineer, Licensed Services Engineer, Contractor and proof Consultants within first 3 months as part of 1st Milestone.

i) Structural Design - Design criteria, method of analysis, method of design, schematic drawings, references if any, durability considerations, specification, brief, preliminary designs & calculations, acceptance criteria, special reference to non-conventional concept, design be made, when the Contractor is submitting his own design.
ii) System Designs for buildings & infrastructure works.
iii) Design brief i.e. Design Basis Report including specifications and acceptance criteria for ON-SITE Development, and preliminary design Calculations.
iv) Detailed write-up of the proposed technology including details of construction, structural details / joint details, test reports, certificates regarding various tests carried out on proposed building system establishing structural stability and behavior of joints / diaphragm action, walling details etc.
v) Brief on construction method and deployment of resources.
vi) Quality Control/Assurance brief including proposed organizational set up testing facility and frequency of testing for different materials.
vii) A site/layout plan showing the proposed development including services with north direction scale (1:1000).
viii) Cluster plans showing ON-SITE development under the scope. Scale (1:500).
ix) Details of dwelling units - Plans, Elevations, sections, type of foundations, founding levels etc. Scale (1:100).
x) Soft copy of all above submissions in a compact disk (CD).
xi) Structural Engineer's and Architect's certificates as per format given below.

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B.14 STRUCTURAL ENGINEER'S CERTIFICATE

It is certified that the structural design including safety from natural hazards like seismic, wind, fire etc. as per N.B.C./B.I.S./Specialized literature/Sound engineering practices has been prepared by duly qualified Structural Engineer meeting with stipulated NIT provisions and the same shall be used in proposed construction.

Signature of bidder	**Signature of Structural Engineer**
Name in Block Letters _____	Name in Block Letters _____
	Registration No _____
Address _____	Address _____
Date _____	Date _____

15 ARCHITECT'S CERTIFICATE

It is certified that the proposed buildings plans submitted for approval shall satisfy the safety and functional requirements as stipulated under National Building Code of India (with up to date amendments) and the information given therein is factually correct to the best of our knowledge and under understanding. It is also certified that building plan submitted are in consonance with provision of GDCR (As amended) and DCR.

Signature of bidder	**Signature of Architect**
Name in Block Letters _____	Name in Block Letters _____
	Registration No _____
Address _____	Address _____
Date _____	Date _____

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Annexure I

DECLARATION FOR SITE VISIT

.../...../2018 From,

To,
The Executive Engineer

SUB: Construction of Proposed NMC Orange City Mall on Plot 1, Orange City Street Project (G +8) along with on-site infrastructure development

Dear Sir,-

I/We have personally visited the site where the construction of the above works is proposed. I/We have collected the necessary market rates of Labour and material prevalent in the local market and the tendered rates have been worked out on the basis of these rates. I/We confirm that the materials required for the work are available of stipulated quantity. We have also considered the recent trends in the market regarding temporary shortages and fluctuation of prices.

I/We have carried out geotechnical investigations for sub structure and our quotes are based on the same and Bindings to us.

I/We have read and followed all the drawings, specifications, and conditions of the contract with Appendices thereto and we agree to abide by them.

We have also obtained the clarification and methodology to be followed for the execution of this work.

Yours faithfully,

For ----------

DATE: .... / .... /..... TENDERER

Note : - Documents to be given on stamp paper of Rs . 100 issued not earlier than the date of tender notice for this work

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Annexure II

DECLARATION FOR ROYALTY CHARGES

I/ we hereby agree to pay all royalty charges as per government norms declared and updated time to time on consumption of minerals in this work like rubble, metal, sand, murrum etc. to revenue department, Govt. of Maharashtra.

I/ we hereby agree to produce receipts of such royalty charges to Executive Engineer NMC.

I/we hereby to agree to accept reimbursement of such royalty charges after production of such original receipts only.

I/ we hereby also agree that the Lump Sum Rates quoted for this work is not applicable for such reimbursement amount.

I/ we agree that if the evidence for payment of royalty charges for this work is not produced, NMC reserves right to pay the necessary royalty charges to the appropriate Authorities.

Signature of Contractor

Note : - Documents to be given on stamp paper of Rs . 100 issued not earlier than the date of tender notice for this work

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Annexure III

DECLARATION FOR CDR

(Corporate Debt Restructuring)

I/We declare that our firm/company or group company or subsidiary company are not entered into Corporate Debt Restructuring (CDR) and are also not in process of Corporate Debt Restructuring (CDR). I/we also agree/understand that our offer will be invalid and 10% amount of EMD will be forfeited by NMC if NMC founds that this information is incorrect before work order.

Signature of Contractor

Note : - Documents to be given on stamp paper of Rs . 100 issued not earlier than the date of tender notice for this work

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B.10 The project Details are as follows:

B.10.1 PROPOSED DEVELOPMENT PROGRAM

Project Name : Orange City Street Mall

Project Details : Plot Area: 35600 Sq. ft.

Total Built-up Area : 114400 Sq. Ft.

45m high G+8 Building with two Basement Floors

Retail Space: 94 No. (1st to 4th Floor)

Office Space : 56 No. of (5th to 8th Floor)

Parking Space: 74 Four Wheelers

79 Two Wheelers

107 Cycles

As per fire norms all units accessible by 1.3 m wide corridor connected by 2 staircases and 4 no's passenger lifts and 1 no's Escalator.

B.10.2 CONSTRUCTION AREA STATEMENT

SR. NO.	DESCRIPTION	AREA IN SQM
1	PLOT AREA	3308.567
2	TOTAL AREA OF PLOT IN POSSESSION	3308.567
3	PERMISSIBLE FSI	4
4	PERMISSIBLE BUILTUP AREA (2-3)	13234.26
5	PROPOSED TOTAL BUILTUP AREA	10629.63
6	BALANCE BUILTUP AREA	2604.633
7	FSI CONSUMED	3.213

SCHEDULE C: PROJECT FACILITIES AND COMPONENTS

Program	
Caper area per unit	29.95 SQM
Super Built up area per unit	59.62 SQM
Habitable floors	6
No of units per typical floor	8
No. of units per tower	48
No. of Towers	8
Total number of units	384

CONSTRUCTION AREA STATEMENT

Tower Area	Tower 1	Tower 2	Tower 3	Tower 4	Tower 5	Tower 6	Tower 7	Tower 8
Total Area / Tower	2943.10	2943.10	2943.10	2969.65	2969.65	2969.65	2969.65	2943.10
Total Area								23681

NON Tower	Non Tower 4	Non Tower 5	Non Tower 6	Non Tower 7
Total Area / Tower	120.00	142.50	142.50	120.00
Total Area				525.00
Total Construction Area_Tower + NON Tower			Sqmt	24176.00
			Sqft	260230.46

SCHEDULE D

1. Construction

The Contractor shall comply with the Specifications and Standards set forth in Annex-I of this Schedule-D for construction of the Project.

2. Design Standards

The Project including Project Facilities shall conform to design requirements set out in the following documents:

STRUCTRAL DESIGN BASIS REPORT

1. INTRODUCTION

The proposed commercial Building Metro Mall consists of 2 Basements + Ground floor + 8 floors + Terrace Floor, LMR and Overhead water tank & Lift machine room.

Total height of building from (EGL) ground level is 39.45 m excluding LMR/OHT.

The building is meant for use as commercial (shops) and office building with Link Bridge connecting to JP Nagar Metro station.

The Structural system for the commercial building consists of Column, Shear walls with Beams-Slab structure.

The main building has 2 basements and a bridge at 4th **floor** connecting the mall to existing Metro station. Bridge is in structural steel with deck slab; which will be constructed after dead load settlement of the main building.

The clear floor-to-floor heights of the floors are shown below in the following table:

Floor level	Floor to Floor Height
Basement 2 to 1	4.20
Basement 1 to Ground	4.20
Ground to 1st Floor	4.20
1st to 3rd Floor	4.20
3rd to 5th Floor	4.20
5th to 7th Floor	4.20
7th to Terrace	4.20
Terrace to LMR/OHT Bottom	4.20 (Assumed)
LMR/OHT bottom to LMR/OHT Top	2.60 (Assumed)

** Basement 2 = Foundation Level, Basement 1 = Upper Basement level

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2. DESIGN LOADS

2.1 GRAVITY LOADS

The loads that follow do not include loading information for mechanical equipment (i.e., boilers, chillers, cooling towers, emergency generators, medical equipment and alike) elevators. The construction load, super imposed dead load that are envisaged to act permanently (wherever applicable) & Live loads for each occupancy category as per IS:875(part-2)–2015 and Live load reduction for upper floors is considered as per IS:875(part-2)

2.1.1 ENTRANCE LOBBY, LIFT LOBBIES

Description		kN/m²
Dead Load	Slab & Beam	Self-weight
Superimposed Dead Load	Finishes (average 50 mm) + False ceiling	1.2 + 1.0 = 2.2
Live Load	Corridors (for trolleys included)	5.0

2.1.2 OFFICE ROOMS / SHOPS

Description		**kN/m²**
Dead Load	Slab & Beam	Self-weight
Superimposed Dead Load	Finishes (50 mm)	1.2
	Partition wall+False Ceiling	1.0 + 1.0 = 2.0
	Raceways (150 mm)	3.0
Live Load	**Retail shops& Offices**	4.0

2.1.3 TOILET ROOMS / BATHROOM

Description		kN/m²
Dead Load	Slab &Beam	Self-weight
Superimposed Dead Load	Floor Finish (50 mm)	1.2
	Raceways (150 mm)	3.0
Live load	-	2.0

2.1.4 STAIRCASE

Description		kN/m²
Dead Load	Waist slab	Self-wt. of inclined thickness
Superimposed Dead Load	Steps	4.575
	Finishes	1.5
Live Load	-	4.00

$$\text{Staircase (steps) load} = 0.5 \times 0.3 \times 0.15 \times \frac{25}{0.3}\text{(steps)} + \frac{(0.3+0.15)}{(0.3 \times 1)} \times 0.075 \times 24$$

$$= 4.575\text{kN/m}^2$$

2.1.5 TERRACE

Description		kN/m²
Dead Load	Slab & Beam	Self - weight
Superimposed Dead Load	Water tank + lift machine room	200 kN on each staircase column
	Water proofing & finishes	3.0

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	Chillers, Solar panels	Point load on column to be considered equal to 1 kn/m^2 on tributary area
Live Load	Utility for parties, Banquets (Without any Roof cover)	4.0
Wall Load	Parapet Wall as per Arch.	

2.1.6 LIFT LOAD

Description		kN
Superimposed Dead Load	In the absence of Lift load data. Assumed load per lift	200kN on each ST column

2.1.7 PARKING

Description		kN/m^2
Dead Load	Slab & Beam	Self-weight
Superimposed Dead Load	Finishes (50 mm)	1.2
	Raceways (150mm)	3 @ GF only
Live Load	Single stack car park	5.0

2.1.8 WATER TANK LOAD

Until the further information is available point load on the respective column shall be added for analysis purpose. This load is equal to double the capacity of tanks.

2.2 WIND LOAD

2.2.1 Initial Estimate of Wind Load

The wind pressure for Initial Estimate of Wind Load shall be calculated on basis of provisions laid in IS875 (Part-3) – 2015.

Basic Wind Speed V_b = 44 m/sec

Risk Coefficient K_1 = 1.07 (For 100Yrs)

Terrain Category = **III**

Terrain/Height factor K_2 = 1.10

Topography Factor K_3 = 1.0

Importance factor K_4 = **1.15**

for cyclonic regions

Design Wind Speed $V_{z\,max} = V_b K_1 K_2 K_3 K_4$ = **52.938 m/s**

Design Wind Pressure (max) $P_{zmax} = 0.6\, V_z^2$

= **1681.46N/m^2**

2.3 EARTHQUAKE LOAD

The loading due to earthquake is assessed based on the provisions of IS: 1893 (Part1)

Seismic Zone	=	II
Zone factor (Z)	=	0.10
Importance Factor (I)	=	1.20
Response Reduction Factor (R)	=	3.0 (Building with ordinary RC structural Walls)

Soil type = I (Hard Rock)

Height of building (H) from Ground = 37.80 m (Up to Terrace)

Height of building considered from the ground floor for time period calculation.

Fundamental Natural Time Period (Ts) withInfill Walls

Ts = (0.075H^0.75)/SQRT Aw (From IS1893 (Part-I):2016, cl.7.6.2.b)

Tx = 0.7429 Sec

Ty = 1.2903 Sec

Sa/g = From IS1893 (Part-I):2016, cl.6.4.2.a, considering type- I soil.

=1/Tx = 1.346, 1/Ty= 0.7750

(For X & Y- Direction)

a) Horizontal seismic co-efficient

$$A_{hx} = \frac{Z \times I \times Sa}{2 \times R \times g} = 0.02692, A_{hy} = 0.0155$$

b) Design base shear

$V_b = A_{hx} \times W = 0.02692 * W$

$A_{hy} \times W = 0.01550 * W$

** Note – In Etabs, the base shear value were scaled up for Shear walls to take 100% base shear.

2.4 DEFLECTION AND CRACK WIDTH

Beam Slab deflection: -Span /Depth ratio as per IS: 456-2000, Crack width shall be checked for slabs.

3. BUILDING SWAY AND INTER-STOREY DRIFT

It is generally recognized that absolute sway is not a perceivable parameter; however limiting sway is used to provide a reasonable level of stiffness and in order to limit damage to non-structural elements as well as limit size of curtain wall joints, etc. Generally tall building lateral load resisting systems are sized on the basis of limiting overall lateral sways to limits of approximately Overall Height/500 as per clause 20.5 of IS 456:2000 under the 50 year return period wind loads. Storey drift shall not exceed 0.004H i.e(1/250)Where, H is the total height of building as per clause 7.11.1 of IS 1893 (Part-1): 2016.

5. BASIC LOADS AND LOAD COMBINATIONS

The various loads are combined in accordance with the stipulations in IS:875 (Part 5):1987. Wherever imposed load is combined with earthquake load the appropriate part of the imposed load as specified in IS: 1893-2016 is adopted both for evaluating earthquake effect and for combined load effects, used in such combination.

- BASIC LOAD CASES :-

LOAD CASE	TYPE	LOAD DESCRIPTION
1	DEAD &SIDL	Floor slab, Finish load & wall load
2	LIVE	Live load
3	EQXP	Seismic load in X direction(+ve)
4	EQXN	Seismic load in X direction (-ve)
5	EQYP	Seismic load in Y direction (+ve)
6	EQYN	Seismic load in Y direction (-ve)
7	WINDX	Wind load in X direction
8	WINDY	Wind load in Y direction

- Ultimate Load combination :-

Description of Load Combination	*Load Factor for Primary Load Cases*			
	Dead Load	Live Load	Wind Load	Seismic Load
Dead load + Live load	1.5	1.5	0.0	0.0
Dead load ± Wind load	1.5	0.0	±1.5	0.0
Dead load ± Seismic load	1.5	0.0	0.0	±1.5
Dead load + Live load ± Wind load	1.2	1.2	±1.2	0.0
Dead load + Live load ± Seismic	1.2	1.2	0	±1.2
Dead Load ± Wind Load	0.9	0.0	±1.5	0.0
Dead Load ± Seismic Load	0.9	0.0	0.0	±1.5

- Serviceability Load combination :-

Description of Load Combination	*Load Factor for Primary Load Cases*			
	Dead Load	Live load	Wind Load	Seismic Load
Dead load + Live load	1.0	1.0	0.0	0.0
Dead load ± Wind load	1.0	0.0	±1.0	0.0
Dead load ± Seismic load	1.0	0.0	0.0	±1.0
Dead load + Live load ± Wind load	1.0	0.8	±0.8	0.0
Dead load + Live load ± Seismic	1.0	0.8	0.0	±0.8

6. ANALYSIS METHODOLOGY & MODELLING

The structure is analysed for Static loads (both dead and live loads) and Lateral loads due to Earthquake/Wind loads and its combinations. Software used is E-Tabs version 16.0. & for foundation safe version 12.3.2

The structure will be modelled as 3D space frame. Vertical elements with aspect ratio less than 2.5 and floor beams shall be modelled as single line elements, Vertical elements not satisfying criteria shall be modelled as shell elements accounting for in plane and out of plane behaviour.

Floor slabs shall be modelled as membrane elements for diaphragm effect only.

The lobby slab (connecting lift core) shall be modelled as shell element and its flexural stiffness shall be accounted. Construction sequence effect will be considered during design detail stage.

Gravity load resisting system

The gravity load resisting system consists of conventional beams and slabs at typical floor. Gravity loads from floors system is transferred to column/wall raft foundation is provided.

Lateral load resisting system

The lateral load resisting system consists Columns and shear wall. The floor slab acting as a diaphragm (collector) shall transfer lateral load to R.C walls& Columns.

7. DESIGN LIFE

The design life of the structure is assumed as 100 years. This requirement is not applicable to replaceable materials. Detailed requirements of this shall form as part of drawing and details.

8. DESIGN METHODOLOGY

All structures shall be designed according to the Limit State Method as specified in IS: 456-2000. Appropriate loads and its combinations, as per relevant clauses in IS 456:2000 code, for the most unfavorable effects are chosen for design. Limit state method is adopted for design of overhead water tanks by using IS-3370(2009).

9. CONSTRUCTION DETAILS

1. Foundation	- Raft foundation Conc. Mix M:40
2. Columns	- Conc. Mix - M: 40 Foundations to Terrace
3. Beams & Slab	- Conc. Mix - M: 40 Grounds to Terrace
4. Retaining Wall	- Conc. Mix - M: 40
4. External Wall	- 150/100mm thick AAC blocks. (As per Arch.)

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5. Internal Wall - 150 mm thick AAC blocks. (As per Arch.)

6. Height (Typ.) -4.20 m

7. Aggregate - 20 mm and down size, mechanically crushed aggregate.

10. REINFORCEMENT

Steel reinforcement shall be of Grade Fe500D conforming to IS: 1786-2008.

11. EXPOSURE CONDITION

Structural elements below Plinth level and External column and beam are designed for moderate exposure condition and internal column, floor beams and slabs are designed for mild exposure condition as per Table 16 of IS 456-2000.

12. MATERIALS

The self-weight of the various elements are computed based on the built weight of materials as given below:-

Materials	Unit Weight in kN/m^3
Steel	78.50
Plain Concrete	24.00
Reinforced Concrete	25.00
Soil	18.00
Saturated Soil	20.00
Water	10.00
Concrete Block	24.00
Fly ash Brick	18.00
Toilet Sunk Filling Load	20.0
Plaster	20.0
Plum concrete	24.0

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M.G.O Wall/Light weight masonry	7.50
Hollow Block work	14.5

13. COVER TO REINFORCEMEN

The clear cover to main reinforcement is provided for 2 hours fire rating for primary load resisting system (Gravity/Lateral).

	Cover	Fire resistance(Hours)
Staircase waist slab	25mm	2
Terrace and Floor Slabs	25mm	2
Shear Walls & Columns	40mm	2
Floor Beams	40mm	2
Isolated Footings	75mm	-
Retaining Walls (Backfilling side)	50mm	-
Retaining Walls (Internal side)	40mm	-

14. FOUNDATION SYSTEM

The SBC of 70 Tn/m^2 is considered based on soil report available from soil consultants.

GROUND WATER TABLE

The GWT is at 7.0 m below existing ground level as per soil report available from soil consultants.

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15. CODES & STANDARDS

All the designs are conforming to the relevant Indian Standards with latest amendments. Some of the relevant Indian Standard Codes, which have been followed for the structural design, are given below:

CODE	DESCRIPTION
IS:875(Part-1)-1987	Code of Practice for Design Loads (Other than Earthquake) for Building and Structures-Unit Weights of Buildings Materials and Stored Material.
IS:875 (Part-2)-1987	Code of Practice for Design Loads (Other than Earthquake) for Building and Structures-Imposed loads
IS:875 (Part-3)-2015	Code of Practice for Design Loads (Other than Earthquake) for Buildings and Structures –Wind Load.
IS:875 (Part-5)-1987	Code of Practice for Design Loads (Other than Earthquake) for Buildings and Structures - Special Loads and Load Combinations
IS:456 -2000	Code of Practice for Plain and Reinforced Concrete
IS:1893(Part-1)-2016	Indian Standard Criteria for Earthquake Resistant Design of Structures
IS:432 (Part-1)-1982	Specification of Mild Steel and Medium Tensile Steel bars and Hard drawn Steel Wire for concrete reinforcement –Mild Steel and Medium Tensile Steel Bars
IS:432(Part-2)-1982	Specification of Mild Steel and Medium Tensile Steel bars and Hard drawn Steel Wire for concrete reinforcement –Hard drawn Steel Wire.
IS:1786-2008	Specification for High Strength Deformed Steel Bars and Wires for Concrete Reinforcement
IS:13920-2016	Ductile Detailing of reinforced concrete structures subjected to seismic forces – code of practice.
IS:1904	Indian Standard Code of practice for Design & Construction foundations in Soil: General Requirements.
IS:1642-1989	Indian Standard Code of practice for Fire Safety Of Buildings (General): Details of Construction.
IS:3370-2009	Code of practice for concrete structures for the storage of liquids.

6. BUILDING INFORMATION

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Name	Height	Elevation	Master Story	Similar To	Splice Story
	m	m			
Prov. (LMR/OHT)	4.2	50.4	Yes	None	No
Terrace	4.2	46.2	Yes	None	No
8th	4.2	42	Yes	None	No
7th	4.2	37.8	Yes	None	No
6th	4.2	33.6	Yes	None	No
5th	4.2	29.4	Yes	None	No
4th	4.2	25.2	Yes	None	No
3rd	4.2	21	Yes	None	No
2nd	4.2	16.8	Yes	None	No
1st	4.2	12.6	Yes	None	No
GR	4.2	8.4	Yes	None	No
Basement 1	4.2	4.2	No	GR	No
Basement 2	0	0	No	GR	No

7. MATERIAL LIST BY ELEMENT TYPE

Name	Material	Element Type
B1200X300M40	M40	Beam
B1450X300M40	M40	Beam
B1450X400M40	M40	Beam
B1500X300M40	M40	Beam

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B1950X300M40	M40	Beam
B2750X300M30	M30	Beam
B2750X300M40	M40	Beam
B400X300M30	M30	Beam
B400X300M40	M40	Beam
B400X400M30	M30	Beam
B400X400M40	M40	Beam
B450X1000M30	M30	Beam
B450X1000M40	M40	Beam
B450X300M30	M30	Beam
B450X300M40	M40	Beam
B550X300M30	M30	Beam
B550X300M40	M40	Beam
B600X230M30	M30	Beam
B600X230M40	M40	Beam
B600X300M30	M30	Beam
B600X300M40	M40	Beam
B600X350M30	M30	Beam
B600X350M40	M40	Beam
B600X400M30	M30	Beam
B600X400M40	M40	Beam
B600X750M30	M30	Beam
B600X750M40	M40	Beam
B650X300M30	M30	Beam

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B650X300M40	M40	Beam
B650X400M30	M30	Beam
B650X400M40	M40	Beam
B700X300M30	M30	Beam
B700X300M40	M40	Beam
B750X300M30	M30	Beam
B750X300M40	M40	Beam
B850X300M30	M30	Beam
B850X300M40	M40	Beam
B875X300M30	M30	Beam
B875X300M40	M40	Beam
B900X300M30	M30	Beam
B900X300M40	M40	Beam
C1000X300M30	M30	Column
C1075X300M30	M30	Column
C1075X300M40	M40	Column
C1075X450M30	M30	Column
C1075X450M40	M40	Column
C1500X300M30	M30	Column
C1500X450M30	M30	Column
C1800X450M30	M30	Column
C1800X450M40	M40	Column
C300X750M30	M30	Column
C550X750M30	M30	Column

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C600X230M30	M30	Column
C600X230M40	M40	Column
C750X300M30	M30	Column
C750X300M40	M40	Column
C750X750M30	M30	Column
C750X750M40	M40	Column
C750X875M30	M30	Column
C750X875M40	M40	Column
C950X950M30	M30	Column
C950X950M40	M40	Column
Dummy Beam	Dummy Beam	Beam
HB1 125X300 M40	M40	Beam
HB2 125X750M40	M40	Beam
HB3 125X750M40	M40	Beam
HB4 175X650 M40	M40	Beam
HB5 250X1150 M40	M40	Beam

Following are wall elements:

W230M30
W230M40
W300M30
W300M40
W350M30
W350M40
W400M30
W400M40
W450M30
W450M40
W550M30
W750M30
W750M40

8. LOAD DEFINITIONS: STATIC LOAD CASES

TABLE: Load Pattern Definitions

Name	Type	Self Weight Multiplier	Auto Load
B-Chajja Load	Super Dead	0	
B-False Ceiling/Services	Super Dead	0	
B-FF	Super Dead	0	
B-live	Live	0	
B-Partition WL	Super Dead	0	
B-Raceways	Super Dead	0	
B-Sunk/Fill	Super Dead	0	
B-WL	Super Dead	0	
B-WP	Super Dead	0	
Chajja Load	Super Dead	0	
Chillers/Solar Panels	Super Dead	0	
Dead	Dead	1	
EQX	Seismic	0	IS 1893:2016
EQY	Seismic	0	IS 1893:2016
Escalator Point load	Super Dead	0	
False Ceiling/Services	Super Dead	0	
FF	Super Dead	0	
GF(-x.long/-y)	Wind	0	User Loads
GF(x.long/-y)	Wind	0	User Loads
GF(-x.long/y)	Wind	0	User Loads
GF(x.long/y)	Wind	0	User Loads
GF(-y.long/-x)	Wind	0	User Loads
GF(y.long/-x)	Wind	0	User Loads
GF(-y.long/x)	Wind	0	User Loads
GF(y.long/x)	Wind	0	User Loads
Live	Live	0	
Partition WL	Super Dead	0	
Raceways	Super Dead	0	
Sunk/Fill	Super Dead	0	
WL	Super Dead	0	
WP	Super Dead	0	
WX	Wind	0	Indian IS 875:2015
WY	Wind	0	Indian IS 875:2015

9. LOAD COMBINATIONS

TABLE: Load Combination Definitions

Name	Type	Is Auto	Load Name	SF
D.L	Linear Add	No	Dead	1
D.L			WL	1
D.L			WP	1
D.L			Partion WL	1
D.L			FF	1
D.L			Raceways	1
D.L			Sunk/Fill	1
D.L			False Ceiling	1
D.L			Chillers/Solar Panels	1
D.L			Chajja Load	1
D.L + L.L	Linear Add	No	Dead	1
D.L + L.L			Live	1
D.L + L.L			WL	1
D.L + L.L			WP	1
D.L + L.L			Partion WL	1
D.L + L.L			FF	1
D.L + L.L			Raceways	1

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D.L + L.L			Sunk/Fill	1
D.L + L.L			False Ceiling	1
D.L + L.L			Chillers/Solar Panels	1
D.L + L.L			Chajja Load	1
DCon1	Linear Add	Yes	Dead	1.5
DCon1			WL	1.5
DCon1			WP	1.5
DCon1			Partion WL	1.5
DCon1			FF	1.5
DCon1			Raceways	1.5
DCon1			Sunk/Fill	1.5
DCon1			False Ceiling	1.5
DCon1			Chillers/Solar Panels	1.5
DCon1			Chajja Load	1.5
DCon1			B-WL	1.5
DCon1			B-WP	1.5
DCon1			B-Partition WL	1.5
DCon1			B-FF	1.5
DCon1			B-Raceways	1.5
DCon1			B-Sunk/Fill	1.5
DCon1			B-False Ceiling/Services	1.5
DCon1			B-Chajja Load	1.5
DCon1			Escalator Point load	1.5
DCon2	Linear Add	Yes	Dead	1.5

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DCon2			Live	1.5
DCon2			WL	1.5
DCon2			WP	1.5
DCon2			Partion WL	1.5
DCon2			FF	1.5
DCon2			Raceways	1.5
DCon2			Sunk/Fill	1.5
DCon2			False Ceiling	1.5
DCon2			Chillers/Solar Panels	1.5
DCon2			Chajja Load	1.5
DCon2			B-live	1.5
DCon2			B-WL	1.5
DCon2			B-WP	1.5
DCon2			B-Partition WL	1.5
DCon2			B-FF	1.5
DCon2			B-Raceways	1.5
DCon2			B-Sunk/Fill	1.5
DCon2			B-False Ceiling/Services	1.5
DCon2			B-Chajja Load	1.5
DCon2			Escalator Point load	1.5
DCon3	Linear Add	Yes	Dead	1.2
DCon3			Live	1.2
DCon3			WL	1.2
DCon3			WP	1.2

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DCon3			Partion WL	1.2
DCon3			FF	1.2
DCon3			Raceways	1.2
DCon3			Sunk/Fill	1.2
DCon3			False Ceiling	1.2
DCon3			Chillers/Solar Panels	1.2
DCon3			Chajja Load	1.2
DCon3			B-live	1.2
DCon3			B-WL	1.2
DCon3			B-WP	1.2
DCon3			B-Partition WL	1.2
DCon3			B-FF	1.2
DCon3			B-Raceways	1.2
DCon3			B-Sunk/Fill	1.2
DCon3			B-False Ceiling/Services	1.2
DCon3			B-Chajja Load	1.2
DCon3			Escalator Point load	1.2
DCon3			WX	1.2
DCon4	Linear Add	Yes	Dead	1.2
DCon4			Live	1.2
DCon4			WL	1.2
DCon4			WP	1.2
DCon4			Partion WL	1.2
DCon4			FF	1.2

DCon4			Raceways	1.2
DCon4			Sunk/Fill	1.2
DCon4			False Ceiling	1.2
DCon4			Chillers/Solar Panels	1.2
DCon4			Chajja Load	1.2
DCon4			B-live	1.2
DCon4			B-WL	1.2
DCon4			B-WP	1.2
DCon4			B-Partition WL	1.2
DCon4			B-FF	1.2
DCon4			B-Raceways	1.2
DCon4			B-Sunk/Fill	1.2
DCon4			B-False Ceiling/Services	1.2
DCon4			B-Chajja Load	1.2
DCon4			Escalator Point load	1.2
DCon4			WX	-1.2
DCon5	Linear Add	Yes	Dead	1.2
DCon5			Live	1.2
DCon5			WL	1.2
DCon5			WP	1.2
DCon5			Partion WL	1.2
DCon5			FF	1.2
DCon5			Raceways	1.2
DCon5			Sunk/Fill	1.2

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DCon5			False Ceiling	1.2
DCon5			Chillers/Solar Panels	1.2
DCon5			Chajja Load	1.2
DCon5			B-live	1.2
DCon5			B-WL	1.2
DCon5			B-WP	1.2
DCon5			B-Partition WL	1.2
DCon5			B-FF	1.2
DCon5			B-Raceways	1.2
DCon5			B-Sunk/Fill	1.2
DCon5			B-False Ceiling/Services	1.2
DCon5			B-Chajja Load	1.2
DCon5			Escalator Point load	1.2
DCon5			WY	1.2
DCon6	Linear Add	Yes	Dead	1.2
DCon6			Live	1.2
DCon6			WL	1.2
DCon6			WP	1.2
DCon6			Partion WL	1.2
DCon6			FF	1.2
DCon6			Raceways	1.2
DCon6			Sunk/Fill	1.2
DCon6			False Ceiling	1.2
DCon6			Chillers/Solar Panels	1.2

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DCon6			Chajja Load	1.2
DCon6			B-live	1.2
DCon6			B-WL	1.2
DCon6			B-WP	1.2
DCon6			B-Partition WL	1.2
DCon6			B-FF	1.2
DCon6			B-Raceways	1.2
DCon6			B-Sunk/Fill	1.2
DCon6			B-False Ceiling/Services	1.2
DCon6			B-Chajja Load	1.2
DCon6			Escalator Point load	1.2
DCon6			WY	-1.2
DCon7	Linear Add	Yes	Dead	1.2
DCon7			Live	1.2
DCon7			WL	1.2
DCon7			WP	1.2
DCon7			Partion WL	1.2
DCon7			FF	1.2
DCon7			Raceways	1.2
DCon7			Sunk/Fill	1.2
DCon7			False Ceiling	1.2
DCon7			Chillers/Solar Panels	1.2
DCon7			Chajja Load	1.2
DCon7			B-live	1.2

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DCon7			B-WL	1.2
DCon7			B-WP	1.2
DCon7			B-Partition WL	1.2
DCon7			B-FF	1.2
DCon7			B-Raceways	1.2
DCon7			B-Sunk/Fill	1.2
DCon7			B-False Ceiling/Services	1.2
DCon7			B-Chajja Load	1.2
DCon7			Escalator Point load	1.2
DCon7			GF(x.long/y)	1.2
DCon8	Linear Add	Yes	Dead	1.2
DCon8			Live	1.2
DCon8			WL	1.2
DCon8			WP	1.2
DCon8			Partion WL	1.2
DCon8			FF	1.2
DCon8			Raceways	1.2
DCon8			Sunk/Fill	1.2
DCon8			False Ceiling	1.2
DCon8			Chillers/Solar Panels	1.2
DCon8			Chajja Load	1.2
DCon8			B-live	1.2
DCon8			B-WL	1.2
DCon8			B-WP	1.2

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DCon8			B-Partition WL	1.2
DCon8			B-FF	1.2
DCon8			B-Raceways	1.2
DCon8			B-Sunk/Fill	1.2
DCon8			B-False Ceiling/Services	1.2
DCon8			B-Chajja Load	1.2
DCon8			Escalator Point load	1.2
DCon8			GF(x.long/-y)	1.2
DCon9	Linear Add	Yes	Dead	1.2
DCon9			Live	1.2
DCon9			WL	1.2
DCon9			WP	1.2
DCon9			Partion WL	1.2
DCon9			FF	1.2
DCon9			Raceways	1.2
DCon9			Sunk/Fill	1.2
DCon9			False Ceiling	1.2
DCon9			Chillers/Solar Panels	1.2
DCon9			Chajja Load	1.2
DCon9			B-live	1.2
DCon9			B-WL	1.2
DCon9			B-WP	1.2
DCon9			B-Partition WL	1.2
DCon9			B-FF	1.2

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DCon9			B-Raceways	1.2
DCon9			B-Sunk/Fill	1.2
DCon9			B-False Ceiling/Services	1.2
DCon9			B-Chajja Load	1.2
DCon9			Escalator Point load	1.2
DCon9			GF(y.long/x)	1.2
DCon10	Linear Add	Yes	Dead	1.2
DCon10			Live	1.2
DCon10			WL	1.2
DCon10			WP	1.2
DCon10			Partion WL	1.2
DCon10			FF	1.2
DCon10			Raceways	1.2
DCon10			Sunk/Fill	1.2
DCon10			False Ceiling	1.2
DCon10			Chillers/Solar Panels	1.2
DCon10			Chajja Load	1.2
DCon10			B-live	1.2
DCon10			B-WL	1.2
DCon10			B-WP	1.2
DCon10			B-Partition WL	1.2
DCon10			B-FF	1.2
DCon10			B-Raceways	1.2
DCon10			B-Sunk/Fill	1.2

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DCon10			B-False Ceiling/Services	1.2
DCon10			B-Chajja Load	1.2
DCon10			Escalator Point load	1.2
DCon10			GF(y.long/-x)	1.2
DCon11	Linear Add	Yes	Dead	1.2
DCon11			Live	1.2
DCon11			WL	1.2
DCon11			WP	1.2
DCon11			Partion WL	1.2
DCon11			FF	1.2
DCon11			Raceways	1.2
DCon11			Sunk/Fill	1.2
DCon11			False Ceiling	1.2
DCon11			Chillers/Solar Panels	1.2
DCon11			Chajja Load	1.2
DCon11			B-live	1.2
DCon11			B-WL	1.2
DCon11			B-WP	1.2
DCon11			B-Partition WL	1.2
DCon11			B-FF	1.2
DCon11			B-Raceways	1.2
DCon11			B-Sunk/Fill	1.2
DCon11			B-False Ceiling/Services	1.2
DCon11			B-Chajja Load	1.2

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DCon11			Escalator Point load	1.2
DCon11			GF(-x.long/y)	1.2
DCon12	Linear Add	Yes	Dead	1.2
DCon12			Live	1.2
DCon12			WL	1.2
DCon12			WP	1.2
DCon12			Partion WL	1.2
DCon12			FF	1.2
DCon12			Raceways	1.2
DCon12			Sunk/Fill	1.2
DCon12			False Ceiling	1.2
DCon12			Chillers/Solar Panels	1.2
DCon12			Chajja Load	1.2
DCon12			B-live	1.2
DCon12			B-WL	1.2
DCon12			B-WP	1.2
DCon12			B-Partition WL	1.2
DCon12			B-FF	1.2
DCon12			B-Raceways	1.2
DCon12			B-Sunk/Fill	1.2
DCon12			B-False Ceiling/Services	1.2
DCon12			B-Chajja Load	1.2
DCon12			Escalator Point load	1.2
DCon12			GF(-x.long/-y)	1.2

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DCon13	Linear Add	Yes	Dead	1.2
DCon13			Live	1.2
DCon13			WL	1.2
DCon13			WP	1.2
DCon13			Partion WL	1.2
DCon13			FF	1.2
DCon13			Raceways	1.2
DCon13			Sunk/Fill	1.2
DCon13			False Ceiling	1.2
DCon13			Chillers/Solar Panels	1.2
DCon13			Chajja Load	1.2
DCon13			B-live	1.2
DCon13			B-WL	1.2
DCon13			B-WP	1.2
DCon13			B-Partition WL	1.2
DCon13			B-FF	1.2
DCon13			B-Raceways	1.2
DCon13			B-Sunk/Fill	1.2
DCon13			B-False Ceiling/Services	1.2
DCon13			B-Chajja Load	1.2
DCon13			Escalator Point load	1.2
DCon13			GF(-y.long/x)	1.2
DCon14	Linear Add	Yes	Dead	1.2
DCon14			Live	1.2

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DCon14			WL	1.2
DCon14			WP	1.2
DCon14			Partion WL	1.2
DCon14			FF	1.2
DCon14			Raceways	1.2
DCon14			Sunk/Fill	1.2
DCon14			False Ceiling	1.2
DCon14			Chillers/Solar Panels	1.2
DCon14			Chajja Load	1.2
DCon14			B-live	1.2
DCon14			B-WL	1.2
DCon14			B-WP	1.2
DCon14			B-Partition WL	1.2
DCon14			B-FF	1.2
DCon14			B-Raceways	1.2
DCon14			B-Sunk/Fill	1.2
DCon14			B-False Ceiling/Services	1.2
DCon14			B-Chajja Load	1.2
DCon14			Escalator Point load	1.2
DCon14			GF(-y.long/-x)	1.2
DCon15	Linear Add	Yes	Dead	1.5
DCon15			WL	1.5
DCon15			WP	1.5
DCon15			Partion WL	1.5

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DCon15			FF	1.5
DCon15			Raceways	1.5
DCon15			Sunk/Fill	1.5
DCon15			False Ceiling	1.5
DCon15			Chillers/Solar Panels	1.5
DCon15			Chajja Load	1.5
DCon15			B-WL	1.5
DCon15			B-WP	1.5
DCon15			B-Partition WL	1.5
DCon15			B-FF	1.5
DCon15			B-Raceways	1.5
DCon15			B-Sunk/Fill	1.5
DCon15			B-False Ceiling/Services	1.5
DCon15			B-Chajja Load	1.5
DCon15			Escalator Point load	1.5
DCon15			WX	1.5
DCon16	Linear Add	Yes	Dead	1.5
DCon16			WL	1.5
DCon16			WP	1.5
DCon16			Partion WL	1.5
DCon16			FF	1.5
DCon16			Raceways	1.5
DCon16			Sunk/Fill	1.5
DCon16			False Ceiling	1.5

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DCon16			Chillers/Solar Panels	1.5
DCon16			Chajja Load	1.5
DCon16			B-WL	1.5
DCon16			B-WP	1.5
DCon16			B-Partition WL	1.5
DCon16			B-FF	1.5
DCon16			B-Raceways	1.5
DCon16			B-Sunk/Fill	1.5
DCon16			B-False Ceiling/Services	1.5
DCon16			B-Chajja Load	1.5
DCon16			Escalator Point load	1.5
DCon16			WX	-1.5
DCon17	Linear Add	Yes	Dead	1.5
DCon17			WL	1.5
DCon17			WP	1.5
DCon17			Partion WL	1.5
DCon17			FF	1.5
DCon17			Raceways	1.5
DCon17			Sunk/Fill	1.5
DCon17			False Ceiling	1.5
DCon17			Chillers/Solar Panels	1.5
DCon17			Chajja Load	1.5
DCon17			B-WL	1.5
DCon17			B-WP	1.5

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DCon17			B-Partition WL	1.5
DCon17			B-FF	1.5
DCon17			B-Raceways	1.5
DCon17			B-Sunk/Fill	1.5
DCon17			B-False Ceiling/Services	1.5
DCon17			B-Chajja Load	1.5
DCon17			Escalator Point load	1.5
DCon17			WY	1.5
DCon18	Linear Add	Yes	Dead	1.5
DCon18			WL	1.5
DCon18			WP	1.5
DCon18			Partion WL	1.5
DCon18			FF	1.5
DCon18			Raceways	1.5
DCon18			Sunk/Fill	1.5
DCon18			False Ceiling	1.5
DCon18			Chillers/Solar Panels	1.5
DCon18			Chajja Load	1.5
DCon18			B-WL	1.5
DCon18			B-WP	1.5
DCon18			B-Partition WL	1.5
DCon18			B-FF	1.5
DCon18			B-Raceways	1.5
DCon18			B-Sunk/Fill	1.5

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DCon18			B-False Ceiling/Services	1.5
DCon18			B-Chajja Load	1.5
DCon18			Escalator Point load	1.5
DCon18			WY	-1.5
DCon19	Linear Add	Yes	Dead	1.5
DCon19			WL	1.5
DCon19			WP	1.5
DCon19			Partion WL	1.5
DCon19			FF	1.5
DCon19			Raceways	1.5
DCon19			Sunk/Fill	1.5
DCon19			False Ceiling	1.5
DCon19			Chillers/Solar Panels	1.5
DCon19			Chajja Load	1.5
DCon19			B-WL	1.5
DCon19			B-WP	1.5
DCon19			B-Partition WL	1.5
DCon19			B-FF	1.5
DCon19			B-Raceways	1.5
DCon19			B-Sunk/Fill	1.5
DCon19			B-False Ceiling/Services	1.5
DCon19			B-Chajja Load	1.5
DCon19			Escalator Point load	1.5
DCon19			GF(x.long/y)	1.5

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DCon20	Linear Add	Yes	Dead	1.5
DCon20			WL	1.5
DCon20			WP	1.5
DCon20			Partion WL	1.5
DCon20			FF	1.5
DCon20			Raceways	1.5
DCon20			Sunk/Fill	1.5
DCon20			False Ceiling	1.5
DCon20			Chillers/Solar Panels	1.5
DCon20			Chajja Load	1.5
DCon20			B-WL	1.5
DCon20			B-WP	1.5
DCon20			B-Partition WL	1.5
DCon20			B-FF	1.5
DCon20			B-Raceways	1.5
DCon20			B-Sunk/Fill	1.5
DCon20			B-False Ceiling/Services	1.5
DCon20			B-Chajja Load	1.5
DCon20			Escalator Point load	1.5
DCon20			GF(x.long/-y)	1.5
DCon21	Linear Add	Yes	Dead	1.5
DCon21			WL	1.5
DCon21			WP	1.5
DCon21			Partion WL	1.5

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DCon21			FF	1.5
DCon21			Raceways	1.5
DCon21			Sunk/Fill	1.5
DCon21			False Ceiling	1.5
DCon21			Chillers/Solar Panels	1.5
DCon21			Chajja Load	1.5
DCon21			B-WL	1.5
DCon21			B-WP	1.5
DCon21			B-Partition WL	1.5
DCon21			B-FF	1.5
DCon21			B-Raceways	1.5
DCon21			B-Sunk/Fill	1.5
DCon21			B-False Ceiling/Services	1.5
DCon21			B-Chajja Load	1.5
DCon21			Escalator Point load	1.5
DCon21			GF(y.long/x)	1.5
DCon22	Linear Add	Yes	Dead	1.5
DCon22			WL	1.5
DCon22			WP	1.5
DCon22			Partion WL	1.5
DCon22			FF	1.5
DCon22			Raceways	1.5
DCon22			Sunk/Fill	1.5
DCon22			False Ceiling	1.5

DCon22			Chillers/Solar Panels	1.5
DCon22			Chajja Load	1.5
DCon22			B-WL	1.5
DCon22			B-WP	1.5
DCon22			B-Partition WL	1.5
DCon22			B-FF	1.5
DCon22			B-Raceways	1.5
DCon22			B-Sunk/Fill	1.5
DCon22			B-False Ceiling/Services	1.5
DCon22			B-Chajja Load	1.5
DCon22			Escalator Point load	1.5
DCon22			GF(y.long/-x)	1.5
DCon23	Linear Add	Yes	Dead	1.5
DCon23			WL	1.5
DCon23			WP	1.5
DCon23			Partion WL	1.5
DCon23			FF	1.5
DCon23			Raceways	1.5
DCon23			Sunk/Fill	1.5
DCon23			False Ceiling	1.5
DCon23			Chillers/Solar Panels	1.5
DCon23			Chajja Load	1.5
DCon23			B-WL	1.5
DCon23			B-WP	1.5

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DCon23			B-Partition WL	1.5
DCon23			B-FF	1.5
DCon23			B-Raceways	1.5
DCon23			B-Sunk/Fill	1.5
DCon23			B-False Ceiling/Services	1.5
DCon23			B-Chajja Load	1.5
DCon23			Escalator Point load	1.5
DCon23			GF(-x.long/y)	1.5
DCon24	Linear Add	Yes	Dead	1.5
DCon24			WL	1.5
DCon24			WP	1.5
DCon24			Partion WL	1.5
DCon24			FF	1.5
DCon24			Raceways	1.5
DCon24			Sunk/Fill	1.5
DCon24			False Ceiling	1.5
DCon24			Chillers/Solar Panels	1.5
DCon24			Chajja Load	1.5
DCon24			B-WL	1.5
DCon24			B-WP	1.5
DCon24			B-Partition WL	1.5
DCon24			B-FF	1.5
DCon24			B-Raceways	1.5
DCon24			B-Sunk/Fill	1.5

PRAFULVED INFRA PVT. LTD. NAGPUR

DCon24			B-False Ceiling/Services	1.5
DCon24			B-Chajja Load	1.5
DCon24			Escalator Point load	1.5
DCon24			GF(-x.long/-y)	1.5
DCon25	Linear Add	Yes	Dead	1.5
DCon25			WL	1.5
DCon25			WP	1.5
DCon25			Partion WL	1.5
DCon25			FF	1.5
DCon25			Raceways	1.5
DCon25			Sunk/Fill	1.5
DCon25			False Ceiling	1.5
DCon25			Chillers/Solar Panels	1.5
DCon25			Chajja Load	1.5
DCon25			B-WL	1.5
DCon25			B-WP	1.5
DCon25			B-Partition WL	1.5
DCon25			B-FF	1.5
DCon25			B-Raceways	1.5
DCon25			B-Sunk/Fill	1.5
DCon25			B-False Ceiling/Services	1.5
DCon25			B-Chajja Load	1.5
DCon25			Escalator Point load	1.5
DCon25			GF(-y.long/x)	1.5

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DCon26	Linear Add	Yes	Dead	1.5
DCon26			WL	1.5
DCon26			WP	1.5
DCon26			Partion WL	1.5
DCon26			FF	1.5
DCon26			Raceways	1.5
DCon26			Sunk/Fill	1.5
DCon26			False Ceiling	1.5
DCon26			Chillers/Solar Panels	1.5
DCon26			Chajja Load	1.5
DCon26			B-WL	1.5
DCon26			B-WP	1.5
DCon26			B-Partition WL	1.5
DCon26			B-FF	1.5
DCon26			B-Raceways	1.5
DCon26			B-Sunk/Fill	1.5
DCon26			B-False Ceiling/Services	1.5
DCon26			B-Chajja Load	1.5
DCon26			Escalator Point load	1.5
DCon26			GF(-y.long/-x)	1.5
DCon27	Linear Add	Yes	Dead	0.9
DCon27			WL	0.9
DCon27			WP	0.9
DCon27			Partion WL	0.9

DCon27			FF	0.9
DCon27			Raceways	0.9
DCon27			Sunk/Fill	0.9
DCon27			False Ceiling	0.9
DCon27			Chillers/Solar Panels	0.9
DCon27			Chajja Load	0.9
DCon27			B-WL	0.9
DCon27			B-WP	0.9
DCon27			B-Partition WL	0.9
DCon27			B-FF	0.9
DCon27			B-Raceways	0.9
DCon27			B-Sunk/Fill	0.9
DCon27			B-False Ceiling/Services	0.9
DCon27			B-Chajja Load	0.9
DCon27			Escalator Point load	0.9
DCon27			WX	1.5
DCon28	Linear Add	Yes	Dead	0.9
DCon28			WL	0.9
DCon28			WP	0.9
DCon28			Partion WL	0.9
DCon28			FF	0.9
DCon28			Raceways	0.9
DCon28			Sunk/Fill	0.9
DCon28			False Ceiling	0.9

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DCon28			Chillers/Solar Panels	0.9
DCon28			Chajja Load	0.9
DCon28			B-WL	0.9
DCon28			B-WP	0.9
DCon28			B-Partition WL	0.9
DCon28			B-FF	0.9
DCon28			B-Raceways	0.9
DCon28			B-Sunk/Fill	0.9
DCon28			B-False Ceiling/Services	0.9
DCon28			B-Chajja Load	0.9
DCon28			Escalator Point load	0.9
DCon28			WX	-1.5
DCon29	Linear Add	Yes	Dead	0.9
DCon29			WL	0.9
DCon29			WP	0.9
DCon29			Partion WL	0.9
DCon29			FF	0.9
DCon29			Raceways	0.9
DCon29			Sunk/Fill	0.9
DCon29			False Ceiling	0.9
DCon29			Chillers/Solar Panels	0.9
DCon29			Chajja Load	0.9
DCon29			B-WL	0.9
DCon29			B-WP	0.9

DCon29			B-Partition WL	0.9
DCon29			B-FF	0.9
DCon29			B-Raceways	0.9
DCon29			B-Sunk/Fill	0.9
DCon29			B-False Ceiling/Services	0.9
DCon29			B-Chajja Load	0.9
DCon29			Escalator Point load	0.9
DCon29			WY	1.5
DCon30	Linear Add	Yes	Dead	0.9
DCon30			WL	0.9
DCon30			WP	0.9
DCon30			Partion WL	0.9
DCon30			FF	0.9
DCon30			Raceways	0.9
DCon30			Sunk/Fill	0.9
DCon30			False Ceiling	0.9
DCon30			Chillers/Solar Panels	0.9
DCon30			Chajja Load	0.9
DCon30			B-WL	0.9
DCon30			B-WP	0.9
DCon30			B-Partition WL	0.9
DCon30			B-FF	0.9
DCon30			B-Raceways	0.9
DCon30			B-Sunk/Fill	0.9

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DCon30			B-False Ceiling/Services	0.9
DCon30			B-Chajja Load	0.9
DCon30			Escalator Point load	0.9
DCon30			WY	-1.5
DCon31	Linear Add	Yes	Dead	0.9
DCon31			WL	0.9
DCon31			WP	0.9
DCon31			Partion WL	0.9
DCon31			FF	0.9
DCon31			Raceways	0.9
DCon31			Sunk/Fill	0.9
DCon31			False Ceiling	0.9
DCon31			Chillers/Solar Panels	0.9
DCon31			Chajja Load	0.9
DCon31			B-WL	0.9
DCon31			B-WP	0.9
DCon31			B-Partition WL	0.9
DCon31			B-FF	0.9
DCon31			B-Raceways	0.9
DCon31			B-Sunk/Fill	0.9
DCon31			B-False Ceiling/Services	0.9
DCon31			B-Chajja Load	0.9
DCon31			Escalator Point load	0.9
DCon31			GF(x.long/y)	1.5



DCon32	Linear Add	Yes	Dead	0.9
DCon32			WL	0.9
DCon32			WP	0.9
DCon32			Partion WL	0.9
DCon32			FF	0.9
DCon32			Raceways	0.9
DCon32			Sunk/Fill	0.9
DCon32			False Ceiling	0.9
DCon32			Chillers/Solar Panels	0.9
DCon32			Chajja Load	0.9
DCon32			B-WL	0.9
DCon32			B-WP	0.9
DCon32			B-Partition WL	0.9
DCon32			B-FF	0.9
DCon32			B-Raceways	0.9
DCon32			B-Sunk/Fill	0.9
DCon32			B-False Ceiling/Services	0.9
DCon32			B-Chajja Load	0.9
DCon32			Escalator Point load	0.9
DCon32			GF(x.long/-y)	1.5
DCon33	Linear Add	Yes	Dead	0.9
DCon33			WL	0.9
DCon33			WP	0.9
DCon33			Partion WL	0.9

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DCon33			FF	0.9
DCon33			Raceways	0.9
DCon33			Sunk/Fill	0.9
DCon33			False Ceiling	0.9
DCon33			Chillers/Solar Panels	0.9
DCon33			Chajja Load	0.9
DCon33			B-WL	0.9
DCon33			B-WP	0.9
DCon33			B-Partition WL	0.9
DCon33			B-FF	0.9
DCon33			B-Raceways	0.9
DCon33			B-Sunk/Fill	0.9
DCon33			B-False Ceiling/Services	0.9
DCon33			B-Chajja Load	0.9
DCon33			Escalator Point load	0.9
DCon33			GF(y.long/x)	1.5
DCon34	Linear Add	Yes	Dead	0.9
DCon34			WL	0.9
DCon34			WP	0.9
DCon34			Partion WL	0.9
DCon34			FF	0.9
DCon34			Raceways	0.9
DCon34			Sunk/Fill	0.9
DCon34			False Ceiling	0.9

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DCon34			Chillers/Solar Panels	0.9
DCon34			Chajja Load	0.9
DCon34			B-WL	0.9
DCon34			B-WP	0.9
DCon34			B-Partition WL	0.9
DCon34			B-FF	0.9
DCon34			B-Raceways	0.9
DCon34			B-Sunk/Fill	0.9
DCon34			B-False Ceiling/Services	0.9
DCon34			B-Chajja Load	0.9
DCon34			Escalator Point load	0.9
DCon34			GF(y.long/-x)	1.5
DCon35	Linear Add	Yes	Dead	0.9
DCon35			WL	0.9
DCon35			WP	0.9
DCon35			Partion WL	0.9
DCon35			FF	0.9
DCon35			Raceways	0.9
DCon35			Sunk/Fill	0.9
DCon35			False Ceiling	0.9
DCon35			Chillers/Solar Panels	0.9
DCon35			Chajja Load	0.9
DCon35			B-WL	0.9
DCon35			B-WP	0.9

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DCon35			B-Partition WL	0.9
DCon35			B-FF	0.9
DCon35			B-Raceways	0.9
DCon35			B-Sunk/Fill	0.9
DCon35			B-False Ceiling/Services	0.9
DCon35			B-Chajja Load	0.9
DCon35			Escalator Point load	0.9
DCon35			GF(-x.long/y)	1.5
DCon36	Linear Add	Yes	Dead	0.9
DCon36			WL	0.9
DCon36			WP	0.9
DCon36			Partion WL	0.9
DCon36			FF	0.9
DCon36			Raceways	0.9
DCon36			Sunk/Fill	0.9
DCon36			False Ceiling	0.9
DCon36			Chillers/Solar Panels	0.9
DCon36			Chajja Load	0.9
DCon36			B-WL	0.9
DCon36			B-WP	0.9
DCon36			B-Partition WL	0.9
DCon36			B-FF	0.9
DCon36			B-Raceways	0.9
DCon36			B-Sunk/Fill	0.9

DCon36			B-False Ceiling/Services	0.9
DCon36			B-Chajja Load	0.9
DCon36			Escalator Point load	0.9
DCon36			GF(-x.long/-y)	1.5
DCon37	Linear Add	Yes	Dead	0.9
DCon37			WL	0.9
DCon37			WP	0.9
DCon37			Partion WL	0.9
DCon37			FF	0.9
DCon37			Raceways	0.9
DCon37			Sunk/Fill	0.9
DCon37			False Ceiling	0.9
DCon37			Chillers/Solar Panels	0.9
DCon37			Chajja Load	0.9
DCon37			B-WL	0.9
DCon37			B-WP	0.9
DCon37			B-Partition WL	0.9
DCon37			B-FF	0.9
DCon37			B-Raceways	0.9
DCon37			B-Sunk/Fill	0.9
DCon37			B-False Ceiling/Services	0.9
DCon37			B-Chajja Load	0.9
DCon37			Escalator Point load	0.9
DCon37			GF(-y.long/x)	1.5

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DCon38	Linear Add	Yes	Dead	0.9
DCon38			WL	0.9
DCon38			WP	0.9
DCon38			Partion WL	0.9
DCon38			FF	0.9
DCon38			Raceways	0.9
DCon38			Sunk/Fill	0.9
DCon38			False Ceiling	0.9
DCon38			Chillers/Solar Panels	0.9
DCon38			Chajja Load	0.9
DCon38			B-WL	0.9
DCon38			B-WP	0.9
DCon38			B-Partition WL	0.9
DCon38			B-FF	0.9
DCon38			B-Raceways	0.9
DCon38			B-Sunk/Fill	0.9
DCon38			B-False Ceiling/Services	0.9
DCon38			B-Chajja Load	0.9
DCon38			Escalator Point load	0.9
DCon38			GF(-y.long/-x)	1.5
DCon39	Linear Add	Yes	Dead	1.2
DCon39			Live	1.2
DCon39			WL	1.2
DCon39			WP	1.2

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DCon39			Partion WL	1.2
DCon39			FF	1.2
DCon39			Raceways	1.2
DCon39			Sunk/Fill	1.2
DCon39			False Ceiling	1.2
DCon39			Chillers/Solar Panels	1.2
DCon39			Chajja Load	1.2
DCon39			B-live	1.2
DCon39			B-WL	1.2
DCon39			B-WP	1.2
DCon39			B-Partition WL	1.2
DCon39			B-FF	1.2
DCon39			B-Raceways	1.2
DCon39			B-Sunk/Fill	1.2
DCon39			B-False Ceiling/Services	1.2
DCon39			B-Chajja Load	1.2
DCon39			Escalator Point load	1.2
DCon39			EQX	1.2
DCon40	Linear Add	Yes	Dead	1.2
DCon40			Live	1.2
DCon40			WL	1.2
DCon40			WP	1.2
DCon40			Partion WL	1.2
DCon40			FF	1.2

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DCon40			Raceways	1.2
DCon40			Sunk/Fill	1.2
DCon40			False Ceiling	1.2
DCon40			Chillers/Solar Panels	1.2
DCon40			Chajja Load	1.2
DCon40			B-live	1.2
DCon40			B-WL	1.2
DCon40			B-WP	1.2
DCon40			B-Partition WL	1.2
DCon40			B-FF	1.2
DCon40			B-Raceways	1.2
DCon40			B-Sunk/Fill	1.2
DCon40			B-False Ceiling/Services	1.2
DCon40			B-Chajja Load	1.2
DCon40			Escalator Point load	1.2
DCon40			EQX	1.2
DCon41	Linear Add	Yes	Dead	1.2
DCon41			Live	1.2
DCon41			WL	1.2
DCon41			WP	1.2
DCon41			Partion WL	1.2
DCon41			FF	1.2
DCon41			Raceways	1.2
DCon41			Sunk/Fill	1.2

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DCon41			False Ceiling	1.2
DCon41			Chillers/Solar Panels	1.2
DCon41			Chajja Load	1.2
DCon41			B-live	1.2
DCon41			B-WL	1.2
DCon41			B-WP	1.2
DCon41			B-Partition WL	1.2
DCon41			B-FF	1.2
DCon41			B-Raceways	1.2
DCon41			B-Sunk/Fill	1.2
DCon41			B-False Ceiling/Services	1.2
DCon41			B-Chajja Load	1.2
DCon41			Escalator Point load	1.2
DCon41			EQY	1.2
DCon42	Linear Add	Yes	Dead	1.2
DCon42			Live	1.2
DCon42			WL	1.2
DCon42			WP	1.2
DCon42			Partion WL	1.2
DCon42			FF	1.2
DCon42			Raceways	1.2
DCon42			Sunk/Fill	1.2
DCon42			False Ceiling	1.2
DCon42			Chillers/Solar Panels	1.2

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DCon42			Chajja Load	1.2
DCon42			B-live	1.2
DCon42			B-WL	1.2
DCon42			B-WP	1.2
DCon42			B-Partition WL	1.2
DCon42			B-FF	1.2
DCon42			B-Raceways	1.2
DCon42			B-Sunk/Fill	1.2
DCon42			B-False Ceiling/Services	1.2
DCon42			B-Chajja Load	1.2
DCon42			Escalator Point load	1.2
DCon42			EQY	-1.2
DCon43	Linear Add	Yes	Dead	1.5
DCon43			WL	1.5
DCon43			WP	1.5
DCon43			Partion WL	1.5
DCon43			FF	1.5
DCon43			Raceways	1.5
DCon43			Sunk/Fill	1.5
DCon43			False Ceiling	1.5
DCon43			Chillers/Solar Panels	1.5
DCon43			Chajja Load	1.5
DCon43			B-WL	1.5
DCon43			B-WP	1.5

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DCon43			B-Partition WL	1.5
DCon43			B-FF	1.5
DCon43			B-Raceways	1.5
DCon43			B-Sunk/Fill	1.5
DCon43			B-False Ceiling/Services	1.5
DCon43			B-Chajja Load	1.5
DCon43			Escalator Point load	1.5
DCon43			EQX	1.5
DCon44	Linear Add	Yes	Dead	1.5
DCon44			WL	1.5
DCon44			WP	1.5
DCon44			Partion WL	1.5
DCon44			FF	1.5
DCon44			Raceways	1.5
DCon44			Sunk/Fill	1.5
DCon44			False Ceiling	1.5
DCon44			Chillers/Solar Panels	1.5
DCon44			Chajja Load	1.5
DCon44			B-WL	1.5
DCon44			B-WP	1.5
DCon44			B-Partition WL	1.5
DCon44			B-FF	1.5
DCon44			B-Raceways	1.5
DCon44			B-Sunk/Fill	1.5

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DCon44			B-False Ceiling/Services	1.5
DCon44			B-Chajja Load	1.5
DCon44			Escalator Point load	1.5
DCon44			EQX	-1.5
DCon45	Linear Add	Yes	Dead	1.5
DCon45			WL	1.5
DCon45			WP	1.5
DCon45			Partion WL	1.5
DCon45			FF	1.5
DCon45			Raceways	1.5
DCon45			Sunk/Fill	1.5
DCon45			False Ceiling	1.5
DCon45			Chillers/Solar Panels	1.5
DCon45			Chajja Load	1.5
DCon45			B-WL	1.5
DCon45			B-WP	1.5
DCon45			B-Partition WL	1.5
DCon45			B-FF	1.5
DCon45			B-Raceways	1.5
DCon45			B-Sunk/Fill	1.5
DCon45			B-False Ceiling/Services	1.5
DCon45			B-Chajja Load	1.5
DCon45			Escalator Point load	1.5
DCon45			EQY	1.5

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DCon46	Linear Add	Yes	Dead	1.5
DCon46			WL	1.5
DCon46			WP	1.5
DCon46			Partion WL	1.5
DCon46			FF	1.5
DCon46			Raceways	1.5
DCon46			Sunk/Fill	1.5
DCon46			False Ceiling	1.5
DCon46			Chillers/Solar Panels	1.5
DCon46			Chajja Load	1.5
DCon46			B-WL	1.5
DCon46			B-WP	1.5
DCon46			B-Partition WL	1.5
DCon46			B-FF	1.5
DCon46			B-Raceways	1.5
DCon46			B-Sunk/Fill	1.5
DCon46			B-False Ceiling/Services	1.5
DCon46			B-Chajja Load	1.5
DCon46			Escalator Point load	1.5
DCon46			EQY	-1.5
DCon47	Linear Add	Yes	Dead	0.9
DCon47			WL	0.9
DCon47			WP	0.9
DCon47			Partion WL	0.9

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DCon47			FF	0.9
DCon47			Raceways	0.9
DCon47			Sunk/Fill	0.9
DCon47			False Ceiling	0.9
DCon47			Chillers/Solar Panels	0.9
DCon47			Chajja Load	0.9
DCon47			B-WL	0.9
DCon47			B-WP	0.9
DCon47			B-Partition WL	0.9
DCon47			B-FF	0.9
DCon47			B-Raceways	0.9
DCon47			B-Sunk/Fill	0.9
DCon47			B-False Ceiling/Services	0.9
DCon47			B-Chajja Load	0.9
DCon47			Escalator Point load	0.9
DCon47			EQX	1.5
DCon48	Linear Add	Yes	Dead	0.9
DCon48			WL	0.9
DCon48			WP	0.9
DCon48			Partion WL	0.9
DCon48			FF	0.9
DCon48			Raceways	0.9
DCon48			Sunk/Fill	0.9
DCon48			False Ceiling	0.9

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DCon48			Chillers/Solar Panels	0.9
DCon48			Chajja Load	0.9
DCon48			B-WL	0.9
DCon48			B-WP	0.9
DCon48			B-Partition WL	0.9
DCon48			B-FF	0.9
DCon48			B-Raceways	0.9
DCon48			B-Sunk/Fill	0.9
DCon48			B-False Ceiling/Services	0.9
DCon48			B-Chajja Load	0.9
DCon48			Escalator Point load	0.9
DCon48			EQX	-1.5
DCon49	Linear Add	Yes	Dead	0.9
DCon49			WL	0.9
DCon49			WP	0.9
DCon49			Partion WL	0.9
DCon49			FF	0.9
DCon49			Raceways	0.9
DCon49			Sunk/Fill	0.9
DCon49			False Ceiling	0.9
DCon49			Chillers/Solar Panels	0.9
DCon49			Chajja Load	0.9
DCon49			B-WL	0.9
DCon49			B-WP	0.9

DCon49			B-Partition WL	0.9
DCon49			B-FF	0.9
DCon49			B-Raceways	0.9
DCon49			B-Sunk/Fill	0.9
DCon49			B-False Ceiling/Services	0.9
DCon49			B-Chajja Load	0.9
DCon49			Escalator Point load	0.9
DCon49			EQY	1.5
DCon50	Linear Add	Yes	Dead	0.9
DCon50			WL	0.9
DCon50			WP	0.9
DCon50			Partion WL	0.9
DCon50			FF	0.9
DCon50			Raceways	0.9
DCon50			Sunk/Fill	0.9
DCon50			False Ceiling	0.9
DCon50			Chillers/Solar Panels	0.9
DCon50			Chajja Load	0.9
DCon50			B-WL	0.9
DCon50			B-WP	0.9
DCon50			B-Partition WL	0.9
DCon50			B-FF	0.9
DCon50			B-Raceways	0.9
DCon50			B-Sunk/Fill	0.9

DCon50			B-False Ceiling/Services	0.9
DCon50			B-Chajja Load	0.9
DCon50			Escalator Point load	0.9
DCon50			EQY	-1.5
DCon51	Linear Add	Yes	Dead	1.2
DCon51			Live	1.2
DCon51			WL	1.2
DCon51			WP	1.2
DCon51			Partion WL	1.2
DCon51			FF	1.2
DCon51			Raceways	1.2
DCon51			Sunk/Fill	1.2
DCon51			False Ceiling	1.2
DCon51			Chillers/Solar Panels	1.2
DCon51			Chajja Load	1.2
DCon51			B-live	1.2
DCon51			B-WL	1.2
DCon51			B-WP	1.2
DCon51			B-Partition WL	1.2
DCon51			B-FF	1.2
DCon51			B-Raceways	1.2
DCon51			B-Sunk/Fill	1.2
DCon51			B-False Ceiling/Services	1.2
DCon51			B-Chajja Load	1.2

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DCon51			Escalator Point load	1.2
DCon51			SpecX	1.2
DCon52	Linear Add	Yes	Dead	1.2
DCon52			Live	1.2
DCon52			WL	1.2
DCon52			WP	1.2
DCon52			Partion WL	1.2
DCon52			FF	1.2
DCon52			Raceways	1.2
DCon52			Sunk/Fill	1.2
DCon52			False Ceiling	1.2
DCon52			Chillers/Solar Panels	1.2
DCon52			Chajja Load	1.2
DCon52			B-live	1.2
DCon52			B-WL	1.2
DCon52			B-WP	1.2
DCon52			B-Partition WL	1.2
DCon52			B-FF	1.2
DCon52			B-Raceways	1.2
DCon52			B-Sunk/Fill	1.2
DCon52			B-False Ceiling/Services	1.2
DCon52			B-Chajja Load	1.2
DCon52			Escalator Point load	1.2
DCon52			SpecY	1.2

PRAFUL ED INFRA PVT. LTD. NAGPUR

DCon53	Linear Add	Yes	Dead	1.5
DCon53			WL	1.5
DCon53			WP	1.5
DCon53			Partion WL	1.5
DCon53			FF	1.5
DCon53			Raceways	1.5
DCon53			Sunk/Fill	1.5
DCon53			False Ceiling	1.5
DCon53			Chillers/Solar Panels	1.5
DCon53			Chajja Load	1.5
DCon53			B-WL	1.5
DCon53			B-WP	1.5
DCon53			B-Partition WL	1.5
DCon53			B-FF	1.5
DCon53			B-Raceways	1.5
DCon53			B-Sunk/Fill	1.5
DCon53			B-False Ceiling/Services	1.5
DCon53			B-Chajja Load	1.5
DCon53			Escalator Point load	1.5
DCon53			SpecX	1.5
DCon54	Linear Add	Yes	Dead	1.5
DCon54			WL	1.5
DCon54			WP	1.5
DCon54			Partion WL	1.5

PRAFULLED INFRA PVT. LTD. NAGPUR

DCon54			FF	1.5
DCon54			Raceways	1.5
DCon54			Sunk/Fill	1.5
DCon54			False Ceiling	1.5
DCon54			Chillers/Solar Panels	1.5
DCon54			Chajja Load	1.5
DCon54			B-WL	1.5
DCon54			B-WP	1.5
DCon54			B-Partition WL	1.5
DCon54			B-FF	1.5
DCon54			B-Raceways	1.5
DCon54			B-Sunk/Fill	1.5
DCon54			B-False Ceiling/Services	1.5
DCon54			B-Chajja Load	1.5
DCon54			Escalator Point load	1.5
DCon54			SpecY	1.5
DCon55	Linear Add	Yes	Dead	0.9
DCon55			WL	0.9
DCon55			WP	0.9
DCon55			Partion WL	0.9
DCon55			FF	0.9
DCon55			Raceways	0.9
DCon55			Sunk/Fill	0.9
DCon55			False Ceiling	0.9

DCon55			Chillers/Solar Panels	0.9
DCon55			Chajja Load	0.9
DCon55			B-WL	0.9
DCon55			B-WP	0.9
DCon55			B-Partition WL	0.9
DCon55			B-FF	0.9
DCon55			B-Raceways	0.9
DCon55			B-Sunk/Fill	0.9
DCon55			B-False Ceiling/Services	0.9
DCon55			B-Chajja Load	0.9
DCon55			Escalator Point load	0.9
DCon55			SpecX	1.5
DCon56	Linear Add	Yes	Dead	0.9
DCon56			WL	0.9
DCon56			WP	0.9
DCon56			Partion WL	0.9
DCon56			FF	0.9
DCon56			Raceways	0.9
DCon56			Sunk/Fill	0.9
DCon56			False Ceiling	0.9
DCon56			Chillers/Solar Panels	0.9
DCon56			Chajja Load	0.9
DCon56			B-WL	0.9
DCon56			B-WP	0.9

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DCon56			B-Partition WL	0.9
DCon56			B-FF	0.9
DCon56			B-Raceways	0.9
DCon56			B-Sunk/Fill	0.9
DCon56			B-False Ceiling/Services	0.9
DCon56			B-Chajja Load	0.9
DCon56			Escalator Point load	0.9
DCon56			SpecY	1.5
DWall	Linear Add	Yes	Dead	1.5
DWall			WL	1.5
DWall			WP	1.5
DWall			Partion WL	1.5
DWall			FF	1.5
DWall			Raceways	1.5
DWall			Sunk/Fill	1.5
DWall			False Ceiling	1.5
DWall			Chillers/Solar Panels	1.5
DWall			Chajja Load	1.5
DWall			B-WL	1.5
DWall			B-WP	1.5
DWall			B-Partition WL	1.5
DWall			B-FF	1.5
DWall			B-Raceways	1.5
DWall			B-Sunk/Fill	1.5

PRAFULVED INFRA PVT. LTD. NAGPUR

DWal1			B-False Ceiling/Services	1.5
DWal1			B-Chajja Load	1.5
DWal1			Escalator Point load	1.5
DWal2	Linear Add	Yes	Dead	1.5
DWal2			Live	1.5
DWal2			WL	1.5
DWal2			WP	1.5
DWal2			Partion WL	1.5
DWal2			FF	1.5
DWal2			Raceways	1.5
DWal2			Sunk/Fill	1.5
DWal2			False Ceiling	1.5
DWal2			Chillers/Solar Panels	1.5
DWal2			Chajja Load	1.5
DWal2			B-live	1.5
DWal2			B-WL	1.5
DWal2			B-WP	1.5
DWal2			B-Partition WL	1.5
DWal2			B-FF	1.5
DWal2			B-Raceways	1.5
DWal2			B-Sunk/Fill	1.5
DWal2			B-False Ceiling/Services	1.5
DWal2			B-Chajja Load	1.5
DWal2			Escalator Point load	1.5

PRAFUL ED INFRA PVT LTD NAGPUR

DWal3	Linear Add	Yes	Dead	1.2
DWal3			Live	1.2
DWal3			WL	1.2
DWal3			WP	1.2
DWal3			Partion WL	1.2
DWal3			FF	1.2
DWal3			Raceways	1.2
DWal3			Sunk/Fill	1.2
DWal3			False Ceiling	1.2
DWal3			Chillers/Solar Panels	1.2
DWal3			Chajja Load	1.2
DWal3			B-live	1.2
DWal3			B-WL	1.2
DWal3			B-WP	1.2
DWal3			B-Partition WL	1.2
DWal3			B-FF	1.2
DWal3			B-Raceways	1.2
DWal3			B-Sunk/Fill	1.2
DWal3			B-False Ceiling/Services	1.2
DWal3			B-Chajja Load	1.2
DWal3			Escalator Point load	1.2
DWal3			WX	1.2
DWal4	Linear Add	Yes	Dead	1.2
DWal4			Live	1.2

PRAVEEN ENGINEERS PVT. LTD. NAGPUR

DWal4			WL	1.2
DWal4			WP	1.2
DWal4			Partion WL	1.2
DWal4			FF	1.2
DWal4			Raceways	1.2
DWal4			Sunk/Fill	1.2
DWal4			False Ceiling	1.2
DWal4			Chillers/Solar Panels	1.2
DWal4			Chajja Load	1.2
DWal4			B-live	1.2
DWal4			B-WL	1.2
DWal4			B-WP	1.2
DWal4			B-Partition WL	1.2
DWal4			B-FF	1.2
DWal4			B-Raceways	1.2
DWal4			B-Sunk/Fill	1.2
DWal4			B-False Ceiling/Services	1.2
DWal4			B-Chajja Load	1.2
DWal4			Escalator Point load	1.2
DWal4			WX	-1.2
DWal5	Linear Add	Yes	Dead	1.2
DWal5			Live	1.2
DWal5			WL	1.2
DWal5			WP	1.2

PRAFUL VED INFRA PVT. LTD. NAGPUR

DWal5			Partion WL	1.2
DWal5			FF	1.2
DWal5			Raceways	1.2
DWal5			Sunk/Fill	1.2
DWal5			False Ceiling	1.2
DWal5			Chillers/Solar Panels	1.2
DWal5			Chajja Load	1.2
DWal5			B-live	1.2
DWal5			B-WL	1.2
DWal5			B-WP	1.2
DWal5			B-Partition WL	1.2
DWal5			B-FF	1.2
DWal5			B-Raceways	1.2
DWal5			B-Sunk/Fill	1.2
DWal5			B-False Ceiling/Services	1.2
DWal5			B-Chajja Load	1.2
DWal5			Escalator Point load	1.2
DWal5			WY	1.2
DWal6	Linear Add	Yes	Dead	1.2
DWal6			Live	1.2
DWal6			WL	1.2
DWal6			WP	1.2
DWal6			Partion WL	1.2
DWal6			FF	1.2

DWal6			Raceways	1.2
DWal6			Sunk/Fill	1.2
DWal6			False Ceiling	1.2
DWal6			Chillers/Solar Panels	1.2
DWal6			Chajja Load	1.2
DWal6			B-live	1.2
DWal6			B-WL	1.2
DWal6			B-WP	1.2
DWal6			B-Partition WL	1.2
DWal6			B-FF	1.2
DWal6			B-Raceways	1.2
DWal6			B-Sunk/Fill	1.2
DWal6			B-False Ceiling/Services	1.2
DWal6			B-Chajja Load	1.2
DWal6			Escalator Point load	1.2
DWal6			WY	-1.2
DWal7	Linear Add	Yes	Dead	1.2
DWal7			Live	1.2
DWal7			WL	1.2
DWal7			WP	1.2
DWal7			Partion WL	1.2
DWal7			FF	1.2
DWal7			Raceways	1.2
DWal7			Sunk/Fill	1.2

DWal7			False Ceiling	1.2
DWal7			Chillers/Solar Panels	1.2
DWal7			Chajja Load	1.2
DWal7			B-live	1.2
DWal7			B-WL	1.2
DWal7			B-WP	1.2
DWal7			B-Partition WL	1.2
DWal7			B-FF	1.2
DWal7			B-Raceways	1.2
DWal7			B-Sunk/Fill	1.2
DWal7			B-False Ceiling/Services	1.2
DWal7			B-Chajja Load	1.2
DWal7			Escalator Point load	1.2
DWal7			GF(x.long/y)	1.2
DWal8	Linear Add	Yes	Dead	1.2
DWal8			Live	1.2
DWal8			WL	1.2
DWal8			WP	1.2
DWal8			Partion WL	1.2
DWal8			FF	1.2
DWal8			Raceways	1.2
DWal8			Sunk/Fill	1.2
DWal8			False Ceiling	1.2
DWal8			Chillers/Solar Panels	1.2

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DWal8			Chajja Load	1.2
DWal8			B-live	1.2
DWal8			B-WL	1.2
DWal8			B-WP	1.2
DWal8			B-Partition WL	1.2
DWal8			B-FF	1.2
DWal8			B-Raceways	1.2
DWal8			B-Sunk/Fill	1.2
DWal8			B-False Ceiling/Services	1.2
DWal8			B-Chajja Load	1.2
DWal8			Escalator Point load	1.2
DWal8			GF(x.long/-y)	1.2
DWal9	Linear Add	Yes	Dead	1.2
DWal9			Live	1.2
DWal9			WL	1.2
DWal9			WP	1.2
DWal9			Partion WL	1.2
DWal9			FF	1.2
DWal9			Raceways	1.2
DWal9			Sunk/Fill	1.2
DWal9			False Ceiling	1.2
DWal9			Chillers/Solar Panels	1.2
DWal9			Chajja Load	1.2
DWal9			B-live	1.2

PRAFULVED INFRA PVT. LTD. NAGPUR

DWal9			B-WL	1.2
DWal9			B-WP	1.2
DWal9			B-Partition WL	1.2
DWal9			B-FF	1.2
DWal9			B-Raceways	1.2
DWal9			B-Sunk/Fill	1.2
DWal9			B-False Ceiling/Services	1.2
DWal9			B-Chajja Load	1.2
DWal9			Escalator Point load	1.2
DWal9			GF(y.long/x)	1.2
DWal10	Linear Add	Yes	Dead	1.2
DWal10			Live	1.2
DWal10			WL	1.2
DWal10			WP	1.2
DWal10			Partion WL	1.2
DWal10			FF	1.2
DWal10			Raceways	1.2
DWal10			Sunk/Fill	1.2
DWal10			False Ceiling	1.2
DWal10			Chillers/Solar Panels	1.2
DWal10			Chajja Load	1.2
DWal10			B-live	1.2
DWal10			B-WL	1.2
DWal10			B-WP	1.2

DWal10			B-Partition WL	1.2
DWal10			B-FF	1.2
DWal10			B-Raceways	1.2
DWal10			B-Sunk/Fill	1.2
DWal10			B-False Ceiling/Services	1.2
DWal10			B-Chajja Load	1.2
DWal10			Escalator Point load	1.2
DWal10			GF(y.long/-x)	1.2
DWal11	Linear Add	Yes	Dead	1.2
DWal11			Live	1.2
DWal11			WL	1.2
DWal11			WP	1.2
DWal11			Partion WL	1.2
DWal11			FF	1.2
DWal11			Raceways	1.2
DWal11			Sunk/Fill	1.2
DWal11			False Ceiling	1.2
DWal11			Chillers/Solar Panels	1.2
DWal11			Chajja Load	1.2
DWal11			B-live	1.2
DWal11			B-WL	1.2
DWal11			B-WP	1.2
DWal11			B-Partition WL	1.2
DWal11			B-FF	1.2

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DWal11			B-Raceways	1.2
DWal11			B-Sunk/Fill	1.2
DWal11			B-False Ceiling/Services	1.2
DWal11			B-Chajja Load	1.2
DWal11			Escalator Point load	1.2
DWal11			GF(-x.long/y)	1.2
DWal12	Linear Add	Yes	Dead	1.2
DWal12			Live	1.2
DWal12			WL	1.2
DWal12			WP	1.2
DWal12			Partion WL	1.2
DWal12			FF	1.2
DWal12			Raceways	1.2
DWal12			Sunk/Fill	1.2
DWal12			False Ceiling	1.2
DWal12			Chillers/Solar Panels	1.2
DWal12			Chajja Load	1.2
DWal12			B-live	1.2
DWal12			B-WL	1.2
DWal12			B-WP	1.2
DWal12			B-Partition WL	1.2
DWal12			B-FF	1.2
DWal12			B-Raceways	1.2
DWal12			B-Sunk/Fill	1.2

DWal12			B-False Ceiling/Services	1.2
DWal12			B-Chajja Load	1.2
DWal12			Escalator Point load	1.2
DWal12			GF(-x.long/-y)	1.2
DWal13	Linear Add	Yes	Dead	1.2
DWal13			Live	1.2
DWal13			WL	1.2
DWal13			WP	1.2
DWal13			Partion WL	1.2
DWal13			FF	1.2
DWal13			Raceways	1.2
DWal13			Sunk/Fill	1.2
DWal13			False Ceiling	1.2
DWal13			Chillers/Solar Panels	1.2
DWal13			Chajja Load	1.2
DWal13			B-live	1.2
DWal13			B-WL	1.2
DWal13			B-WP	1.2
DWal13			B-Partition WL	1.2
DWal13			B-FF	1.2
DWal13			B-Raceways	1.2
DWal13			B-Sunk/Fill	1.2
DWal13			B-False Ceiling/Services	1.2
DWal13			B-Chajja Load	1.2

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DWal13			Escalator Point load	1.2
DWal13			GF(-y.long/x)	1.2
DWal14	Linear Add	Yes	Dead	1.2
DWal14			Live	1.2
DWal14			WL	1.2
DWal14			WP	1.2
DWal14			Partion WL	1.2
DWal14			FF	1.2
DWal14			Raceways	1.2
DWal14			Sunk/Fill	1.2
DWal14			False Ceiling	1.2
DWal14			Chillers/Solar Panels	1.2
DWal14			Chajja Load	1.2
DWal14			B-live	1.2
DWal14			B-WL	1.2
DWal14			B-WP	1.2
DWal14			B-Partition WL	1.2
DWal14			B-FF	1.2
DWal14			B-Raceways	1.2
DWal14			B-Sunk/Fill	1.2
DWal14			B-False Ceiling/Services	1.2
DWal14			B-Chajja Load	1.2
DWal14			Escalator Point load	1.2
DWal14			GF(-y.long/-x)	1.2

DWal15	Linear Add	Yes	Dead	1.5
DWal15			WL	1.5
DWal15			WP	1.5
DWal15			Partion WL	1.5
DWal15			FF	1.5
DWal15			Raceways	1.5
DWal15			Sunk/Fill	1.5
DWal15			False Ceiling	1.5
DWal15			Chillers/Solar Panels	1.5
DWal15			Chajja Load	1.5
DWal15			B-WL	1.5
DWal15			B-WP	1.5
DWal15			B-Partition WL	1.5
DWal15			B-FF	1.5
DWal15			B-Raceways	1.5
DWal15			B-Sunk/Fill	1.5
DWal15			B-False Ceiling/Services	1.5
DWal15			B-Chajja Load	1.5
DWal15			Escalator Point load	1.5
DWal15			WX	1.5
DWal16	Linear Add	Yes	Dead	1.5
DWal16			WL	1.5
DWal16			WP	1.5
DWal16			Partion WL	1.5

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DWal16			FF	1.5
DWal16			Raceways	1.5
DWal16			Sunk/Fill	1.5
DWal16			False Ceiling	1.5
DWal16			Chillers/Solar Panels	1.5
DWal16			Chajja Load	1.5
DWal16			B-WL	1.5
DWal16			B-WP	1.5
DWal16			B-Partition WL	1.5
DWal16			B-FF	1.5
DWal16			B-Raceways	1.5
DWal16			B-Sunk/Fill	1.5
DWal16			B-False Ceiling/Services	1.5
DWal16			B-Chajja Load	1.5
DWal16			Escalator Point load	1.5
DWal16			WX	-1.5
DWal17	Linear Add	Yes	Dead	1.5
DWal17			WL	1.5
DWal17			WP	1.5
DWal17			Partion WL	1.5
DWal17			FF	1.5
DWal17			Raceways	1.5
DWal17			Sunk/Fill	1.5
DWal17			False Ceiling	1.5

DWal17			Chillers/Solar Panels	1.5
DWal17			Chajja Load	1.5
DWal17			B-WL	1.5
DWal17			B-WP	1.5
DWal17			B-Partition WL	1.5
DWal17			B-FF	1.5
DWal17			B-Raceways	1.5
DWal17			B-Sunk/Fill	1.5
DWal17			B-False Ceiling/Services	1.5
DWal17			B-Chajja Load	1.5
DWal17			Escalator Point load	1.5
DWal17			WY	1.5
DWal18	Linear Add	Yes	Dead	1.5
DWal18			WL	1.5
DWal18			WP	1.5
DWal18			Partion WL	1.5
DWal18			FF	1.5
DWal18			Raceways	1.5
DWal18			Sunk/Fill	1.5
DWal18			False Ceiling	1.5
DWal18			Chillers/Solar Panels	1.5
DWal18			Chajja Load	1.5
DWal18			B-WL	1.5
DWal18			B-WP	1.5

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DWal18			B-Partition WL	1.5
DWal18			B-FF	1.5
DWal18			B-Raceways	1.5
DWal18			B-Sunk/Fill	1.5
DWal18			B-False Ceiling/Services	1.5
DWal18			B-Chajja Load	1.5
DWal18			Escalator Point load	1.5
DWal18			WY	-1.5
DWal19	Linear Add	Yes	Dead	1.5
DWal19			WL	1.5
DWal19			WP	1.5
DWal19			Partion WL	1.5
DWal19			FF	1.5
DWal19			Raceways	1.5
DWal19			Sunk/Fill	1.5
DWal19			False Ceiling	1.5
DWal19			Chillers/Solar Panels	1.5
DWal19			Chajja Load	1.5
DWal19			B-WL	1.5
DWal19			B-WP	1.5
DWal19			B-Partition WL	1.5
DWal19			B-FF	1.5
DWal19			B-Raceways	1.5
DWal19			B-Sunk/Fill	1.5

DWal19			B-False Ceiling/Services	1.5
DWal19			B-Chajja Load	1.5
DWal19			Escalator Point load	1.5
DWal19			GF(x.long/y)	1.5
DWal20	Linear Add	Yes	Dead	1.5
DWal20			WL	1.5
DWal20			WP	1.5
DWal20			Partion WL	1.5
DWal20			FF	1.5
DWal20			Raceways	1.5
DWal20			Sunk/Fill	1.5
DWal20			False Ceiling	1.5
DWal20			Chillers/Solar Panels	1.5
DWal20			Chajja Load	1.5
DWal20			B-WL	1.5
DWal20			B-WP	1.5
DWal20			B-Partition WL	1.5
DWal20			B-FF	1.5
DWal20			B-Raceways	1.5
DWal20			B-Sunk/Fill	1.5
DWal20			B-False Ceiling/Services	1.5
DWal20			B-Chajja Load	1.5
DWal20			Escalator Point load	1.5
DWal20			GF(x.long/-y)	1.5

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DWal21	Linear Add	Yes	Dead	1.5
DWal21			WL	1.5
DWal21			WP	1.5
DWal21			Partion WL	1.5
DWal21			FF	1.5
DWal21			Raceways	1.5
DWal21			Sunk/Fill	1.5
DWal21			False Ceiling	1.5
DWal21			Chillers/Solar Panels	1.5
DWal21			Chajja Load	1.5
DWal21			B-WL	1.5
DWal21			B-WP	1.5
DWal21			B-Partition WL	1.5
DWal21			B-FF	1.5
DWal21			B-Raceways	1.5
DWal21			B-Sunk/Fill	1.5
DWal21			B-False Ceiling/Services	1.5
DWal21			B-Chajja Load	1.5
DWal21			Escalator Point load	1.5
DWal21			GF(y.long/x)	1.5
DWal22	Linear Add	Yes	Dead	1.5
DWal22			WL	1.5
DWal22			WP	1.5
DWal22			Partion WL	1.5

DWal22			FF	1.5
DWal22			Raceways	1.5
DWal22			Sunk/Fill	1.5
DWal22			False Ceiling	1.5
DWal22			Chillers/Solar Panels	1.5
DWal22			Chajja Load	1.5
DWal22			B-WL	1.5
DWal22			B-WP	1.5
DWal22			B-Partition WL	1.5
DWal22			B-FF	1.5
DWal22			B-Raceways	1.5
DWal22			B-Sunk/Fill	1.5
DWal22			B-False Ceiling/Services	1.5
DWal22			B-Chajja Load	1.5
DWal22			Escalator Point load	1.5
DWal22			GF(y.long/-x)	1.5
DWal23	Linear Add	Yes	Dead	1.5
DWal23			WL	1.5
DWal23			WP	1.5
DWal23			Partion WL	1.5
DWal23			FF	1.5
DWal23			Raceways	1.5
DWal23			Sunk/Fill	1.5
DWal23			False Ceiling	1.5

DWal23			Chillers/Solar Panels	1.5
DWal23			Chajja Load	1.5
DWal23			B-WL	1.5
DWal23			B-WP	1.5
DWal23			B-Partition WL	1.5
DWal23			B-FF	1.5
DWal23			B-Raceways	1.5
DWal23			B-Sunk/Fill	1.5
DWal23			B-False Ceiling/Services	1.5
DWal23			B-Chajja Load	1.5
DWal23			Escalator Point load	1.5
DWal23			GF(-x.long/y)	1.5
DWal24	Linear Add	Yes	Dead	1.5
DWal24			WL	1.5
DWal24			WP	1.5
DWal24			Partion WL	1.5
DWal24			FF	1.5
DWal24			Raceways	1.5
DWal24			Sunk/Fill	1.5
DWal24			False Ceiling	1.5
DWal24			Chillers/Solar Panels	1.5
DWal24			Chajja Load	1.5
DWal24			B-WL	1.5
DWal24			B-WP	1.5

DWal24			B-Partition WL	1.5
DWal24			B-FF	1.5
DWal24			B-Raceways	1.5
DWal24			B-Sunk/Fill	1.5
DWal24			B-False Ceiling/Services	1.5
DWal24			B-Chajja Load	1.5
DWal24			Escalator Point load	1.5
DWal24			GF(-x.long/-y)	1.5
DWal25	Linear Add	Yes	Dead	1.5
DWal25			WL	1.5
DWal25			WP	1.5
DWal25			Partion WL	1.5
DWal25			FF	1.5
DWal25			Raceways	1.5
DWal25			Sunk/Fill	1.5
DWal25			False Ceiling	1.5
DWal25			Chillers/Solar Panels	1.5
DWal25			Chajja Load	1.5
DWal25			B-WL	1.5
DWal25			B-WP	1.5
DWal25			B-Partition WL	1.5
DWal25			B-FF	1.5
DWal25			B-Raceways	1.5
DWal25			B-Sunk/Fill	1.5

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DWal25			B-False Ceiling/Services	1.5
DWal25			B-Chajja Load	1.5
DWal25			Escalator Point load	1.5
DWal25			GF(-y.long/x)	1.5
DWal26	Linear Add	Yes	Dead	1.5
DWal26			WL	1.5
DWal26			WP	1.5
DWal26			Partion WL	1.5
DWal26			FF	1.5
DWal26			Raceways	1.5
DWal26			Sunk/Fill	1.5
DWal26			False Ceiling	1.5
DWal26			Chillers/Solar Panels	1.5
DWal26			Chajja Load	1.5
DWal26			B-WL	1.5
DWal26			B-WP	1.5
DWal26			B-Partition WL	1.5
DWal26			B-FF	1.5
DWal26			B-Raceways	1.5
DWal26			B-Sunk/Fill	1.5
DWal26			B-False Ceiling/Services	1.5
DWal26			B-Chajja Load	1.5
DWal26			Escalator Point load	1.5
DWal26			GF(-y.long/-x)	1.5

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DWal27	Linear Add	Yes	Dead	0.9
DWal27			WL	0.9
DWal27			WP	0.9
DWal27			Partion WL	0.9
DWal27			FF	0.9
DWal27			Raceways	0.9
DWal27			Sunk/Fill	0.9
DWal27			False Ceiling	0.9
DWal27			Chillers/Solar Panels	0.9
DWal27			Chajja Load	0.9
DWal27			B-WL	0.9
DWal27			B-WP	0.9
DWal27			B-Partition WL	0.9
DWal27			B-FF	0.9
DWal27			B-Raceways	0.9
DWal27			B-Sunk/Fill	0.9
DWal27			B-False Ceiling/Services	0.9
DWal27			B-Chajja Load	0.9
DWal27			Escalator Point load	0.9
DWal27			WX	1.5
DWal28	Linear Add	Yes	Dead	0.9
DWal28			WL	0.9
DWal28			WP	0.9
DWal28			Partion WL	0.9

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DWal28			FF	0.9
DWal28			Raceways	0.9
DWal28			Sunk/Fill	0.9
DWal28			False Ceiling	0.9
DWal28			Chillers/Solar Panels	0.9
DWal28			Chajja Load	0.9
DWal28			B-WL	0.9
DWal28			B-WP	0.9
DWal28			B-Partition WL	0.9
DWal28			B-FF	0.9
DWal28			B-Raceways	0.9
DWal28			B-Sunk/Fill	0.9
DWal28			B-False Ceiling/Services	0.9
DWal28			B-Chajja Load	0.9
DWal28			Escalator Point load	0.9
DWal28			WX	-1.5
DWal29	Linear Add	Yes	Dead	0.9
DWal29			WL	0.9
DWal29			WP	0.9
DWal29			Partion WL	0.9
DWal29			FF	0.9
DWal29			Raceways	0.9
DWal29			Sunk/Fill	0.9
DWal29			False Ceiling	0.9

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DWal29			Chillers/Solar Panels	0.9
DWal29			Chajja Load	0.9
DWal29			B-WL	0.9
DWal29			B-WP	0.9
DWal29			B-Partition WL	0.9
DWal29			B-FF	0.9
DWal29			B-Raceways	0.9
DWal29			B-Sunk/Fill	0.9
DWal29			B-False Ceiling/Services	0.9
DWal29			B-Chajja Load	0.9
DWal29			Escalator Point load	0.9
DWal29			WY	1.5
DWal30	Linear Add	Yes	Dead	0.9
DWal30			WL	0.9
DWal30			WP	0.9
DWal30			Partion WL	0.9
DWal30			FF	0.9
DWal30			Raceways	0.9
DWal30			Sunk/Fill	0.9
DWal30			False Ceiling	0.9
DWal30			Chillers/Solar Panels	0.9
DWal30			Chajja Load	0.9
DWal30			B-WL	0.9
DWal30			B-WP	0.9

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DWal30			B-Partition WL	0.9
DWal30			B-FF	0.9
DWal30			B-Raceways	0.9
DWal30			B-Sunk/Fill	0.9
DWal30			B-False Ceiling/Services	0.9
DWal30			B-Chajja Load	0.9
DWal30			Escalator Point load	0.9
DWal30			WY	-1.5
DWal31	Linear Add	Yes	Dead	0.9
DWal31			WL	0.9
DWal31			WP	0.9
DWal31			Partion WL	0.9
DWal31			FF	0.9
DWal31			Raceways	0.9
DWal31			Sunk/Fill	0.9
DWal31			False Ceiling	0.9
DWal31			Chillers/Solar Panels	0.9
DWal31			Chajja Load	0.9
DWal31			B-WL	0.9
DWal31			B-WP	0.9
DWal31			B-Partition WL	0.9
DWal31			B-FF	0.9
DWal31			B-Raceways	0.9
DWal31			B-Sunk/Fill	0.9

DWal31			B-False Ceiling/Services	0.9
DWal31			B-Chajja Load	0.9
DWal31			Escalator Point load	0.9
DWal31			GF(x.long/y)	1.5
DWal32	Linear Add	Yes	Dead	0.9
DWal32			WL	0.9
DWal32			WP	0.9
DWal32			Partion WL	0.9
DWal32			FF	0.9
DWal32			Raceways	0.9
DWal32			Sunk/Fill	0.9
DWal32			False Ceiling	0.9
DWal32			Chillers/Solar Panels	0.9
DWal32			Chajja Load	0.9
DWal32			B-WL	0.9
DWal32			B-WP	0.9
DWal32			B-Partition WL	0.9
DWal32			B-FF	0.9
DWal32			B-Raceways	0.9
DWal32			B-Sunk/Fill	0.9
DWal32			B-False Ceiling/Services	0.9
DWal32			B-Chajja Load	0.9
DWal32			Escalator Point load	0.9
DWal32			GF(x.long/-y)	1.5

DWal33	Linear Add	Yes	Dead	0.9
DWal33			WL	0.9
DWal33			WP	0.9
DWal33			Partion WL	0.9
DWal33			FF	0.9
DWal33			Raceways	0.9
DWal33			Sunk/Fill	0.9
DWal33			False Ceiling	0.9
DWal33			Chillers/Solar Panels	0.9
DWal33			Chajja Load	0.9
DWal33			B-WL	0.9
DWal33			B-WP	0.9
DWal33			B-Partition WL	0.9
DWal33			B-FF	0.9
DWal33			B-Raceways	0.9
DWal33			B-Sunk/Fill	0.9
DWal33			B-False Ceiling/Services	0.9
DWal33			B-Chajja Load	0.9
DWal33			Escalator Point load	0.9
DWal33			GF(y.long/x)	1.5
DWal34	Linear Add	Yes	Dead	0.9
DWal34			WL	0.9
DWal34			WP	0.9
DWal34			Partion WL	0.9

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DWal34			FF	0.9
DWal34			Raceways	0.9
DWal34			Sunk/Fill	0.9
DWal34			False Ceiling	0.9
DWal34			Chillers/Solar Panels	0.9
DWal34			Chajja Load	0.9
DWal34			B-WL	0.9
DWal34			B-WP	0.9
DWal34			B-Partition WL	0.9
DWal34			B-FF	0.9
DWal34			B-Raceways	0.9
DWal34			B-Sunk/Fill	0.9
DWal34			B-False Ceiling/Services	0.9
DWal34			B-Chajja Load	0.9
DWal34			Escalator Point load	0.9
DWal34			GF(y.long/-x)	1.5
DWal35	Linear Add	Yes	Dead	0.9
DWal35			WL	0.9
DWal35			WP	0.9
DWal35			Partion WL	0.9
DWal35			FF	0.9
DWal35			Raceways	0.9
DWal35			Sunk/Fill	0.9
DWal35			False Ceiling	0.9

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DWal35			Chillers/Solar Panels	0.9
DWal35			Chajja Load	0.9
DWal35			B-WL	0.9
DWal35			B-WP	0.9
DWal35			B-Partition WL	0.9
DWal35			B-FF	0.9
DWal35			B-Raceways	0.9
DWal35			B-Sunk/Fill	0.9
DWal35			B-False Ceiling/Services	0.9
DWal35			B-Chajja Load	0.9
DWal35			Escalator Point load	0.9
DWal35			GF(-x.long/y)	1.5
DWal36	Linear Add	Yes	Dead	0.9
DWal36			WL	0.9
DWal36			WP	0.9
DWal36			Partion WL	0.9
DWal36			FF	0.9
DWal36			Raceways	0.9
DWal36			Sunk/Fill	0.9
DWal36			False Ceiling	0.9
DWal36			Chillers/Solar Panels	0.9
DWal36			Chajja Load	0.9
DWal36			B-WL	0.9
DWal36			B-WP	0.9

DWal36			B-Partition WL	0.9
DWal36			B-FF	0.9
DWal36			B-Raceways	0.9
DWal36			B-Sunk/Fill	0.9
DWal36			B-False Ceiling/Services	0.9
DWal36			B-Chajja Load	0.9
DWal36			Escalator Point load	0.9
DWal36			GF(-x.long/-y)	1.5
DWal37	Linear Add	Yes	Dead	0.9
DWal37			WL	0.9
DWal37			WP	0.9
DWal37			Partion WL	0.9
DWal37			FF	0.9
DWal37			Raceways	0.9
DWal37			Sunk/Fill	0.9
DWal37			False Ceiling	0.9
DWal37			Chillers/Solar Panels	0.9
DWal37			Chajja Load	0.9
DWal37			B-WL	0.9
DWal37			B-WP	0.9
DWal37			B-Partition WL	0.9
DWal37			B-FF	0.9
DWal37			B-Raceways	0.9
DWal37			B-Sunk/Fill	0.9

DWal37			B-False Ceiling/Services	0.9
DWal37			B-Chajja Load	0.9
DWal37			Escalator Point load	0.9
DWal37			GF(-y.long/x)	1.5
DWal38	Linear Add	Yes	Dead	0.9
DWal38			WL	0.9
DWal38			WP	0.9
DWal38			Partion WL	0.9
DWal38			FF	0.9
DWal38			Raceways	0.9
DWal38			Sunk/Fill	0.9
DWal38			False Ceiling	0.9
DWal38			Chillers/Solar Panels	0.9
DWal38			Chajja Load	0.9
DWal38			B-WL	0.9
DWal38			B-WP	0.9
DWal38			B-Partition WL	0.9
DWal38			B-FF	0.9
DWal38			B-Raceways	0.9
DWal38			B-Sunk/Fill	0.9
DWal38			B-False Ceiling/Services	0.9
DWal38			B-Chajja Load	0.9
DWal38			Escalator Point load	0.9
DWal38			GF(-y.long/-x)	1.5

DWal39	Linear Add	Yes	Dead	1.2
DWal39			Live	1.2
DWal39			WL	1.2
DWal39			WP	1.2
DWal39			Partion WL	1.2
DWal39			FF	1.2
DWal39			Raceways	1.2
DWal39			Sunk/Fill	1.2
DWal39			False Ceiling	1.2
DWal39			Chillers/Solar Panels	1.2
DWal39			Chajja Load	1.2
DWal39			B-live	1.2
DWal39			B-WL	1.2
DWal39			B-WP	1.2
DWal39			B-Partition WL	1.2
DWal39			B-FF	1.2
DWal39			B-Raceways	1.2
DWal39			B-Sunk/Fill	1.2
DWal39			B-False Ceiling/Services	1.2
DWal39			B-Chajja Load	1.2
DWal39			Escalator Point load	1.2
DWal39			EQX	1.2
DWal40	Linear Add	Yes	Dead	1.2
DWal40			Live	1.2

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DWal40			WL	1.2
DWal40			WP	1.2
DWal40			Partion WL	1.2
DWal40			FF	1.2
DWal40			Raceways	1.2
DWal40			Sunk/Fill	1.2
DWal40			False Ceiling	1.2
DWal40			Chillers/Solar Panels	1.2
DWal40			Chajja Load	1.2
DWal40			B-live	1.2
DWal40			B-WL	1.2
DWal40			B-WP	1.2
DWal40			B-Partition WL	1.2
DWal40			B-FF	1.2
DWal40			B-Raceways	1.2
DWal40			B-Sunk/Fill	1.2
DWal40			B-False Ceiling/Services	1.2
DWal40			B-Chajja Load	1.2
DWal40			Escalator Point load	1.2
DWal40			EQX	-1.2
DWal41	Linear Add	Yes	Dead	1.2
DWal41			Live	1.2
DWal41			WL	1.2
DWal41			WP	1.2

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DWal41			Partion WL	1.2
DWal41			FF	1.2
DWal41			Raceways	1.2
DWal41			Sunk/Fill	1.2
DWal41			False Ceiling	1.2
DWal41			Chillers/Solar Panels	1.2
DWal41			Chajja Load	1.2
DWal41			B-live	1.2
DWal41			B-WL	1.2
DWal41			B-WP	1.2
DWal41			B-Partition WL	1.2
DWal41			B-FF	1.2
DWal41			B-Raceways	1.2
DWal41			B-Sunk/Fill	1.2
DWal41			B-False Ceiling/Services	1.2
DWal41			B-Chajja Load	1.2
DWal41			Escalator Point load	1.2
DWal41			EQY	1.2
DWal42	Linear Add	Yes	Dead	1.2
DWal42			Live	1.2
DWal42			WL	1.2
DWal42			WP	1.2
DWal42			Partion WL	1.2
DWal42			FF	1.2

DWal42			Raceways	1.2
DWal42			Sunk/Fill	1.2
DWal42			False Ceiling	1.2
DWal42			Chillers/Solar Panels	1.2
DWal42			Chajja Load	1.2
DWal42			B-live	1.2
DWal42			B-WL	1.2
DWal42			B-WP	1.2
DWal42			B-Partition WL	1.2
DWal42			B-FF	1.2
DWal42			B-Raceways	1.2
DWal42			B-Sunk/Fill	1.2
DWal42			B-False Ceiling/Services	1.2
DWal42			B-Chajja Load	1.2
DWal42			Escalator Point load	1.2
DWal42			EQY	-1.2
DWal43	Linear Add	Yes	Dead	1.5
DWal43			WL	1.5
DWal43			WP	1.5
DWal43			Partion WL	1.5
DWal43			FF	1.5
DWal43			Raceways	1.5
DWal43			Sunk/Fill	1.5
DWal43			False Ceiling	1.5

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DWal43			Chillers/Solar Panels	1.5
DWal43			Chajja Load	1.5
DWal43			B-WL	1.5
DWal43			B-WP	1.5
DWal43			B-Partition WL	1.5
DWal43			B-FF	1.5
DWal43			B-Raceways	1.5
DWal43			B-Sunk/Fill	1.5
DWal43			B-False Ceiling/Services	1.5
DWal43			B-Chajja Load	1.5
DWal43			Escalator Point load	1.5
DWal43			EQX	1.5
DWal44	Linear Add	Yes	Dead	1.5
DWal44			WL	1.5
DWal44			WP	1.5
DWal44			Partion WL	1.5
DWal44			FF	1.5
DWal44			Raceways	1.5
DWal44			Sunk/Fill	1.5
DWal44			False Ceiling	1.5
DWal44			Chillers/Solar Panels	1.5
DWal44			Chajja Load	1.5
DWal44			B-WL	1.5
DWal44			B-WP	1.5

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DWal44			B-Partition WL	1.5
DWal44			B-FF	1.5
DWal44			B-Raceways	1.5
DWal44			B-Sunk/Fill	1.5
DWal44			B-False Ceiling/Services	1.5
DWal44			B-Chajja Load	1.5
DWal44			Escalator Point load	1.5
DWal44			EQX	-1.5
DWal45	Linear Add	Yes	Dead	1.5
DWal45			WL	1.5
DWal45			WP	1.5
DWal45			Partion WL	1.5
DWal45			FF	1.5
DWal45			Raceways	1.5
DWal45			Sunk/Fill	1.5
DWal45			False Ceiling	1.5
DWal45			Chillers/Solar Panels	1.5
DWal45			Chajja Load	1.5
DWal45			B-WL	1.5
DWal45			B-WP	1.5
DWal45			B-Partition WL	1.5
DWal45			B-FF	1.5
DWal45			B-Raceways	1.5
DWal45			B-Sunk/Fill	1.5

DWal45			B-False Ceiling/Services	1.5
DWal45			B-Chajja Load	1.5
DWal45			Escalator Point load	1.5
DWal45			EQY	1.5
DWal46	Linear Add	Yes	Dead	1.5
DWal46			WL	1.5
DWal46			WP	1.5
DWal46			Partion WL	1.5
DWal46			FF	1.5
DWal46			Raceways	1.5
DWal46			Sunk/Fill	1.5
DWal46			False Ceiling	1.5
DWal46			Chillers/Solar Panels	1.5
DWal46			Chajja Load	1.5
DWal46			B-WL	1.5
DWal46			B-WP	1.5
DWal46			B-Partition WL	1.5
DWal46			B-FF	1.5
DWal46			B-Raceways	1.5
DWal46			B-Sunk/Fill	1.5
DWal46			B-False Ceiling/Services	1.5
DWal46			B-Chajja Load	1.5
DWal46			Escalator Point load	1.5
DWal46			EQY	-1.5

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DWal47	Linear Add	Yes	Dead	0.9
DWal47			WL	0.9
DWal47			WP	0.9
DWal47			Partion WL	0.9
DWal47			FF	0.9
DWal47			Raceways	0.9
DWal47			Sunk/Fill	0.9
DWal47			False Ceiling	0.9
DWal47			Chillers/Solar Panels	0.9
DWal47			Chajja Load	0.9
DWal47			B-WL	0.9
DWal47			B-WP	0.9
DWal47			B-Partition WL	0.9
DWal47			B-FF	0.9
DWal47			B-Raceways	0.9
DWal47			B-Sunk/Fill	0.9
DWal47			B-False Ceiling/Services	0.9
DWal47			B-Chajja Load	0.9
DWal47			Escalator Point load	0.9
DWal47			EQX	1.5
DWal48	Linear Add	Yes	Dead	0.9
DWal48			WL	0.9
DWal48			WP	0.9
DWal48			Partion WL	0.9

DWal48			FF	0.9
DWal48			Raceways	0.9
DWal48			Sunk/Fill	0.9
DWal48			False Ceiling	0.9
DWal48			Chillers/Solar Panels	0.9
DWal48			Chajja Load	0.9
DWal48			B-WL	0.9
DWal48			B-WP	0.9
DWal48			B-Partition WL	0.9
DWal48			B-FF	0.9
DWal48			B-Raceways	0.9
DWal48			B-Sunk/Fill	0.9
DWal48			B-False Ceiling/Services	0.9
DWal48			B-Chajja Load	0.9
DWal48			Escalator Point load	0.9
DWal48			EQX	-1.5
DWal49	Linear Add	Yes	Dead	0.9
DWal49			WL	0.9
DWal49			WP	0.9
DWal49			Partion WL	0.9
DWal49			FF	0.9
DWal49			Raceways	0.9
DWal49			Sunk/Fill	0.9
DWal49			False Ceiling	0.9

DWal49			Chillers/Solar Panels	0.9
DWal49			Chajja Load	0.9
DWal49			B-WL	0.9
DWal49			B-WP	0.9
DWal49			B-Partition WL	0.9
DWal49			B-FF	0.9
DWal49			B-Raceways	0.9
DWal49			B-Sunk/Fill	0.9
DWal49			B-False Ceiling/Services	0.9
DWal49			B-Chajja Load	0.9
DWal49			Escalator Point load	0.9
DWal49			EQY	1.5
DWal50	Linear Add	Yes	Dead	0.9
DWal50			WL	0.9
DWal50			WP	0.9
DWal50			Partion WL	0.9
DWal50			FF	0.9
DWal50			Raceways	0.9
DWal50			Sunk/Fill	0.9
DWal50			False Ceiling	0.9
DWal50			Chillers/Solar Panels	0.9
DWal50			Chajja Load	0.9
DWal50			B-WL	0.9
DWal50			B-WP	0.9

DWal50			B-Partition WL	0.9
DWal50			B-FF	0.9
DWal50			B-Raceways	0.9
DWal50			B-Sunk/Fill	0.9
DWal50			B-False Ceiling/Services	0.9
DWal50			B-Chajja Load	0.9
DWal50			Escalator Point load	0.9
DWal50			EQY	-1.5
DWal51	Linear Add	Yes	Dead	1.2
DWal51			Live	1.2
DWal51			WL	1.2
DWal51			WP	1.2
DWal51			Partion WL	1.2
DWal51			FF	1.2
DWal51			Raceways	1.2
DWal51			Sunk/Fill	1.2
DWal51			False Ceiling	1.2
DWal51			Chillers/Solar Panels	1.2
DWal51			Chajja Load	1.2
DWal51			B-live	1.2
DWal51			B-WL	1.2
DWal51			B-WP	1.2
DWal51			B-Partition WL	1.2
DWal51			B-FF	1.2

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DWal51			B-Raceways	1.2
DWal51			B-Sunk/Fill	1.2
DWal51			B-False Ceiling/Services	1.2
DWal51			B-Chajja Load	1.2
DWal51			Escalator Point load	1.2
DWal51			SpecX	1.2
DWal52	Linear Add	Yes	Dead	1.2
DWal52			Live	1.2
DWal52			WL	1.2
DWal52			WP	1.2
DWal52			Partion WL	1.2
DWal52			FF	1.2
DWal52			Raceways	1.2
DWal52			Sunk/Fill	1.2
DWal52			False Ceiling	1.2
DWal52			Chillers/Solar Panels	1.2
DWal52			Chajja Load	1.2
DWal52			B-live	1.2
DWal52			B-WL	1.2
DWal52			B-WP	1.2
DWal52			B-Partition WL	1.2
DWal52			B-FF	1.2
DWal52			B-Raceways	1.2
DWal52			B-Sunk/Fill	1.2

DWal52			B-False Ceiling/Services	1.2
DWal52			B-Chajja Load	1.2
DWal52			Escalator Point load	1.2
DWal52			SpecY	1.2
DWal53	Linear Add	Yes	Dead	1.5
DWal53			WL	1.5
DWal53			WP	1.5
DWal53			Partion WL	1.5
DWal53			FF	1.5
DWal53			Raceways	1.5
DWal53			Sunk/Fill	1.5
DWal53			False Ceiling	1.5
DWal53			Chillers/Solar Panels	1.5
DWal53			Chajja Load	1.5
DWal53			B-WL	1.5
DWal53			B-WP	1.5
DWal53			B-Partition WL	1.5
DWal53			B-FF	1.5
DWal53			B-Raceways	1.5
DWal53			B-Sunk/Fill	1.5
DWal53			B-False Ceiling/Services	1.5
DWal53			B-Chajja Load	1.5
DWal53			Escalator Point load	1.5
DWal53			SpecX	1.5

DWal54	Linear Add	Yes	Dead	1.5
DWal54			WL	1.5
DWal54			WP	1.5
DWal54			Partion WL	1.5
DWal54			FF	1.5
DWal54			Raceways	1.5
DWal54			Sunk/Fill	1.5
DWal54			False Ceiling	1.5
DWal54			Chillers/Solar Panels	1.5
DWal54			Chajja Load	1.5
DWal54			B-WL	1.5
DWal54			B-WP	1.5
DWal54			B-Partition WL	1.5
DWal54			B-FF	1.5
DWal54			B-Raceways	1.5
DWal54			B-Sunk/Fill	1.5
DWal54			B-False Ceiling/Services	1.5
DWal54			B-Chajja Load	1.5
DWal54			Escalator Point load	1.5
DWal54			SpecY	1.5
DWal55	Linear Add	Yes	Dead	0.9
DWal55			WL	0.9
DWal55			WP	0.9
DWal55			Partion WL	0.9

DWal55			FF	0.9
DWal55			Raceways	0.9
DWal55			Sunk/Fill	0.9
DWal55			False Ceiling	0.9
DWal55			Chillers/Solar Panels	0.9
DWal55			Chajja Load	0.9
DWal55			B-WL	0.9
DWal55			B-WP	0.9
DWal55			B-Partition WL	0.9
DWal55			B-FF	0.9
DWal55			B-Raceways	0.9
DWal55			B-Sunk/Fill	0.9
DWal55			B-False Ceiling/Services	0.9
DWal55			B-Chajja Load	0.9
DWal55			Escalator Point load	0.9
DWal55			SpecX	1.5
DWal56	Linear Add	Yes	Dead	0.9
DWal56			WL	0.9
DWal56			WP	0.9
DWal56			Partion WL	0.9
DWal56			FF	0.9
DWal56			Raceways	0.9
DWal56			Sunk/Fill	0.9
DWal56			False Ceiling	0.9

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DWal56			Chillers/Solar Panels	0.9
DWal56			Chajja Load	0.9
DWal56			B-WL	0.9
DWal56			B-WP	0.9
DWal56			B-Partition WL	0.9
DWal56			B-FF	0.9
DWal56			B-Raceways	0.9
DWal56			B-Sunk/Fill	0.9
DWal56			B-False Ceiling/Services	0.9
DWal56			B-Chajja Load	0.9
DWal56			Escalator Point load	0.9
DWal56			SpecY	1.5
SComb1	Linear Add	No	Dead	1
SComb1			Live	1
SComb1			WL	1
SComb1			WP	1
SComb1			Partion WL	1
SComb1			FF	1
SComb1			Raceways	1
SComb1			Sunk/Fill	1
SComb1			Chajja Load	1
SComb1			Chillers/Solar Panels	1
SComb1			Escalator Point load	1
SComb2	Linear Add	No	Dead	1

SComb2			WL	1
SComb2			WP	1
SComb2			Partion WL	1
SComb2			FF	1
SComb2			Raceways	1
SComb2			Sunk/Fill	1
SComb2			WX	1
SComb2			Escalator Point load	1
SComb3	Linear Add	No	Dead	1
SComb3			WL	1
SComb3			WP	1
SComb3			Partion WL	1
SComb3			FF	1
SComb3			Raceways	1
SComb3			Sunk/Fill	1
SComb3			WX	-1
SComb3			Escalator Point load	1
SComb4	Linear Add	No	Dead	1
SComb4			WL	1
SComb4			WP	1
SComb4			Partion WL	1
SComb4			FF	1
SComb4			Raceways	1
SComb4			Sunk/Fill	1

SComb4			WY	1
SComb4			Escalator Point load	1
SComb5	Linear Add	No	Dead	1
SComb5			WL	1
SComb5			WP	1
SComb5			Partion WL	1
SComb5			FF	1
SComb5			Raceways	1
SComb5			Sunk/Fill	1
SComb5			WY	-1
SComb5			Escalator Point load	1
SComb6	Linear Add	No	Dead	1
SComb6			WL	1
SComb6			WP	1
SComb6			Partion WL	1
SComb6			FF	1
SComb6			Raceways	1
SComb6			Sunk/Fill	1
SComb6			EQX	1
SComb6			Escalator Point load	1
SComb7	Linear Add	No	Dead	1
SComb7			WL	1
SComb7			WP	1

SComb7			Partion WL	1
SComb7			FF	1
SComb7			Raceways	1
SComb7			Sunk/Fill	1
SComb7			EQX	-1
SComb7			Escalator Point load	1
SComb8	Linear Add	No	Dead	1
SComb8			WL	1
SComb8			WP	1
SComb8			Partion WL	1
SComb8			FF	1
SComb8			Raceways	1
SComb8			Sunk/Fill	1
SComb8			EQY	1
SComb8			Escalator Point load	1
SComb9	Linear Add	No	Dead	1
SComb9			WL	1
SComb9			WP	1
SComb9			Partion WL	1
SComb9			FF	1
SComb9			Raceways	1
SComb9			Sunk/Fill	1
SComb9			EQY	-1
SComb9			Escalator Point load	1

SComb10	Linear Add	No	Dead	1
SComb10			WL	1
SComb10			WP	1
SComb10			Partion WL	1
SComb10			FF	1
SComb10			Raceways	1
SComb10			Sunk/Fill	1
SComb10			Live	0.8
SComb10			WX	0.8
SComb10			Escalator Point load	1
SComb11	Linear Add	No	Dead	1
SComb11			WL	1
SComb11			WP	1
SComb11			Partion WL	1
SComb11			FF	1
SComb11			Raceways	1
SComb11			Sunk/Fill	1
SComb11			Live	0.8
SComb11			WX	-0.8
SComb11			Escalator Point load	1
SComb12	Linear Add	No	Dead	1
SComb12			WL	1
SComb12			WP	1

SComb12			Partion WL	1
SComb12			FF	1
SComb12			Raceways	1
SComb12			Sunk/Fill	1
SComb12			Live	0.8
SComb12			WY	0.8
SComb12			Escalator Point load	1
SComb13	Linear Add	No	Dead	1
SComb13			WL	1
SComb13			WP	1
SComb13			Partion WL	1
SComb13			FF	1
SComb13			Raceways	1
SComb13			Sunk/Fill	1
SComb13			Live	0.8
SComb13			WY	-0.8
SComb13			Escalator Point load	1
SComb14	Linear Add	No	Dead	1
SComb14			WL	1
SComb14			WP	1
SComb14			Partion WL	1
SComb14			FF	1
SComb14			Raceways	1
SComb14			Sunk/Fill	1

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SComb14			Live	0.8
SComb14			EQX	0.8
SComb14			Escalator Point load	1
SComb15	Linear Add	No	Dead	1
SComb15			WL	1
SComb15			WP	1
SComb15			Partion WL	1
SComb15			FF	1
SComb15			Raceways	1
SComb15			Sunk/Fill	1
SDComb15			Live	0.8
SComb15			EQX	-0.8
SComb15			Escalator Point load	1
SComb16	Linear Add	No	Dead	1
SComb16			WL	1
SComb16			WP	1
SComb16			Partion WL	1
SComb16			FF	1
SComb16			Raceways	1
SComb16			Sunk/Fill	1
SComb16			Live	0.8
SComb16			EQY	0.8
SComb16			Escalator Point load	1
SComb17	Linear	No	Dead	1

	Add			
SComb17			WL	1
SComb17			WP	1
SComb17			Partion WL	1
SComb17			FF	1
SComb17			Raceways	1
SComb17			Sunk/Fill	1
SComb17			Live	0.8
SComb17			EQY	-0.8
SComb17			Escalator Point load	1
	Linear			
UDCmpC1	Add	No	Dead	1.5
UDCmpC1			Live	0.75
	Linear			
UDCmpD1	Add	No	Dead	1
UDCmpD1			WL	1
UDCmpD1			WP	1
UDCmpD1			Partion WL	1
UDCmpD1			FF	1
UDCmpD1			Raceways	1
UDCmpD1			Sunk/Fill	1
UDCmpD1			False Ceiling	1
	Linear			
UDCmpD2	Add	No	Dead	1
UDCmpD2			Live	1
UDCmpD2			WL	1

UDCmpD2			WP	1
UDCmpD2			Partion WL	1
UDCmpD2			FF	1
UDCmpD2			Raceways	1
UDCmpD2			Sunk/Fill	1
UDCmpD2			False Ceiling	1
UDCmpS1	Linear Add	No	Dead	1.35
UDCmpS1			WL	1.35
UDCmpS1			WP	1.35
UDCmpS1			Partion WL	1.35
UDCmpS1			FF	1.35
UDCmpS1			Raceways	1.35
UDCmpS1			Sunk/Fill	1.35
UDCmpS1			False Ceiling	1.35
UDCmpS2	Linear Add	No	Dead	1.35
UDCmpS2			Live	1.5
UDCmpS2			WL	1.35
UDCmpS2			WP	1.35
UDCmpS2			Partion WL	1.35
UDCmpS2			FF	1.35
UDCmpS2			Raceways	1.35
UDCmpS2			Sunk/Fill	1.35
UDCmpS2			False Ceiling	1.35

** SCOMB are service load combinations, Dwall are shear wall design combinations, UDcon are concrete frame design, UDCmpD are combinations for design of composite sections (used in design of bridge at 4th floor.)

10. GUST WIND CALCULATION

WIND LOAD CALCULATIONS

MAHIMTURA CONSULTANTS PVT.LTD.

IS 875 -III (2015)

opy along wind forces for service wind in X and Y direction and create 2 or 4 new additional wind case

EAK ACCLERATION FOR ALONG AND ACROSS WIND

or 10 Year Return period and 0.02 damping

or +X irection

1	Frequency in X Direction($f_{a,x}$)		0.34990	8	Average Mass of structure in kgf	(m_o)	93055031
2	Roughness factor	(r)	0.36799	9	Average Breadth of structure at top	($b_{at,x}$)	19.21500
3	Peck factor for resonant response	(g_R)	3.77851	10	Peck factor in cross wind direction	(g_h)	3.81471
4	Size reduction factor	(S)	0.21131	11	Hourly mean wind pressure in pa	(P_h)	601.44148
5	Spectrum of turbulence	(E)	0.07779	$\ddot{Y}$	Peak Accleration = $(1.5\, g_h P_h b\,(0.76+0.24\,k)\sqrt{(S\,E/\beta)})/m_o$		
6	Damping Coefficent	(β)	0.02000				
7	Xbar - mean + X deflection at top in meter		0.1990		Across Peak accleration in m/sec2	0.03247	0.331% of g
$\ddot{X}$	Peack Accleration	$=(2\pi f_a)^2$ .Xbar . g_R r $\sqrt{(S\,E/\beta)}$			Along Peak accleration in m/sec2	1.21242	12.359% of g

or -X irection

1	Frequency in X Direction($f_{a,x}$)		0.34990	8	Average Mass of structure in kgf	(m_o)	93055031
2	Roughness factor	(r)	0.36799	9	Average Breadth of structure at top	($b_{at,x}$)	19.21500
3	Peck factor for resonant response	(g_R)	3.77851	10	Peck factor in cross wind direction	(g_h)	3.81471
4	Size reduction factor	(S)	0.21131	11	Hourly mean wind pressure in pa	(P_h)	601.44148
5	Spectrum of turbulence	(E)	0.07779	$\ddot{Y}$	Peak Accleration = $(1.5\, g_h P_h b\,(0.76+0.24\,k)\sqrt{(S\,E/\beta)})/m_o$		
6	Damping Coefficent	(β)	0.02000				
7	Xbar - mean + X deflection at top in meter		0.1990		Across Peak accleration in m/sec2	0.03247	0.331% of g
$\ddot{X}$	Peack Accleration	$=(2\pi f_a)^2$ .Xbar . g_R r $\sqrt{(S\,E/\beta)}$			Along Peak accleration in m/sec^2	1.21242	12.359% of g

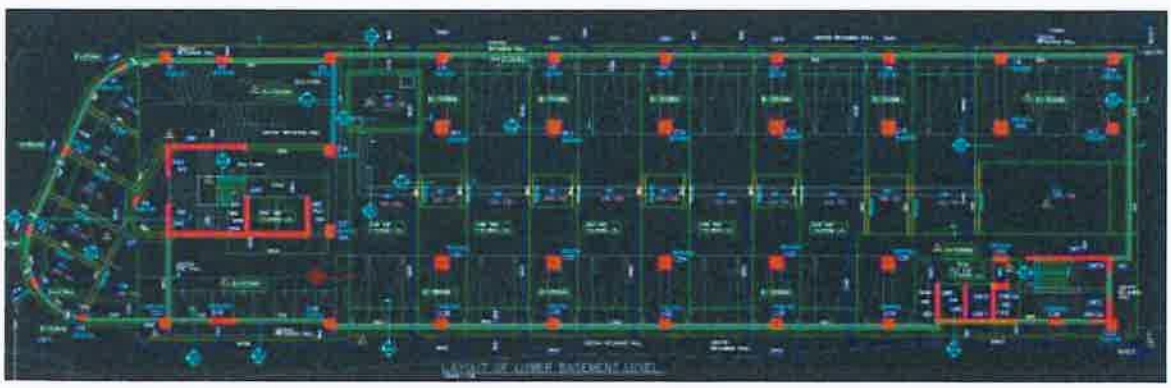
For +Y Direction

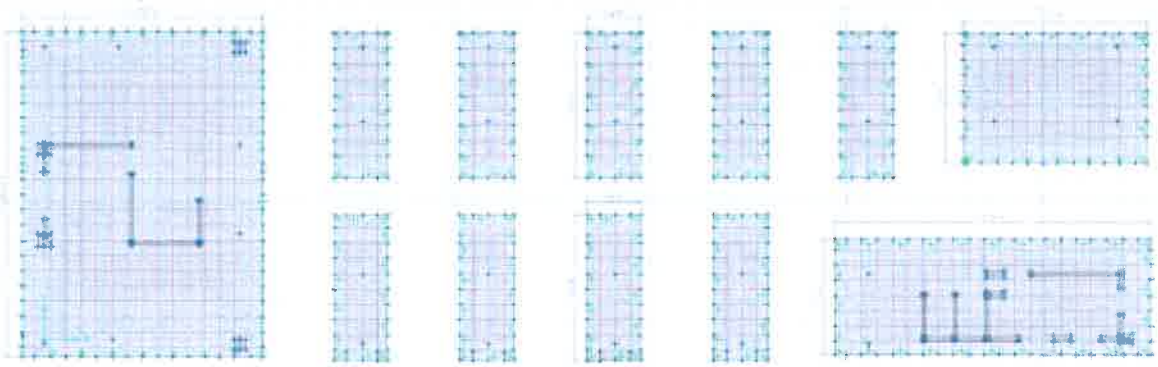
1	Frequency in Y Direction($f_{a,y}$)		0.40145	8	Average Mass of structure in kgf	(m_a)	93055031
2	Roughness factor	(r)	0.36799	9	Average Breadth of structure at top	$(b_{eh,Y})$	71.88133
3	Peck factor for resonant response	(g_R)	3.81471	10	Peck factor in cross wind direction	(g_b)	3.77851
4	Size reduction factor	(S)	0.08035	11	Hourly mean wind pressure in pa	(P_h)	601.44148
5	Spectrum of turbulence	(E)	0.07111	$\ddot{X}$	Peak Accleration = $(1.5\, g_h P_h b\,(0.76+0.24\,k)\sqrt{(S\,E/\beta)})/m_o$		
6	Damping Coefficent	(β)	0.02000				
7	Ybar - mean + X deflection at top in meter		0.1810		Across Peak accleration in m/sec2	0.07093	0.723% of g
$\ddot{Y}$	Peack Accleration $=(2\pi f_a)^2$ .Ybar . g_R r √(S E/β)				Along Peak accleration in m/sec^2	0.86405	8.808% of g

For -Y Direction

1	Frequency in Y Direction($f_{a,y}$)		0.40145	8	Average Mass of structure in kgf	(m_a)	93055031
2	Roughness factor	(r)	0.36799	9	Average Breadth of structure at top	$(b_{eh,Y})$	71.88133
3	Peck factor for resonant response	(g_R)	3.81471	10	Peck factor in cross wind direction	(g_b)	3.77851
4	Size reduction factor	(S)	0.08035	11	Hourly mean wind pressure in pa	(P_h)	601.44148
5	Spectrum of turbulence	(E)	0.07111	$\ddot{X}$	Peak Accleration = $(1.5\, g_h P_h b\,(0.76+0.24\,k)\sqrt{(S\,E/\beta)})/m_o$		
6	Damping Coefficent	(β)	0.02000				
7	Ybar - mean - Y deflection at top of structure		0.1810		Across Peak accleration in m/sec2	0.07093	0.723% of g
$\ddot{Y}$	Peack Accleration $=(2\pi f_a)^2$ .Ybar . g_R r √(S E/β)				Along Peak accleration in m/sec^2	0.86405	8.808% of g

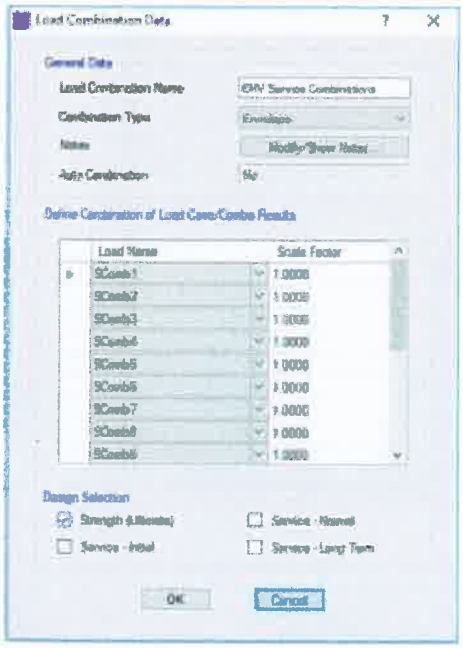
11. FOUNDATION DESIGN

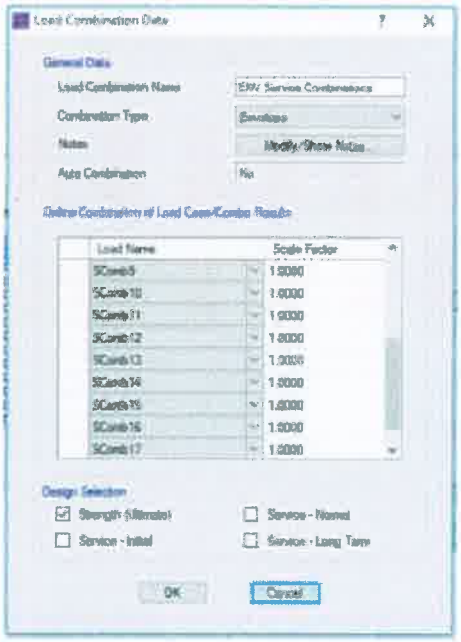




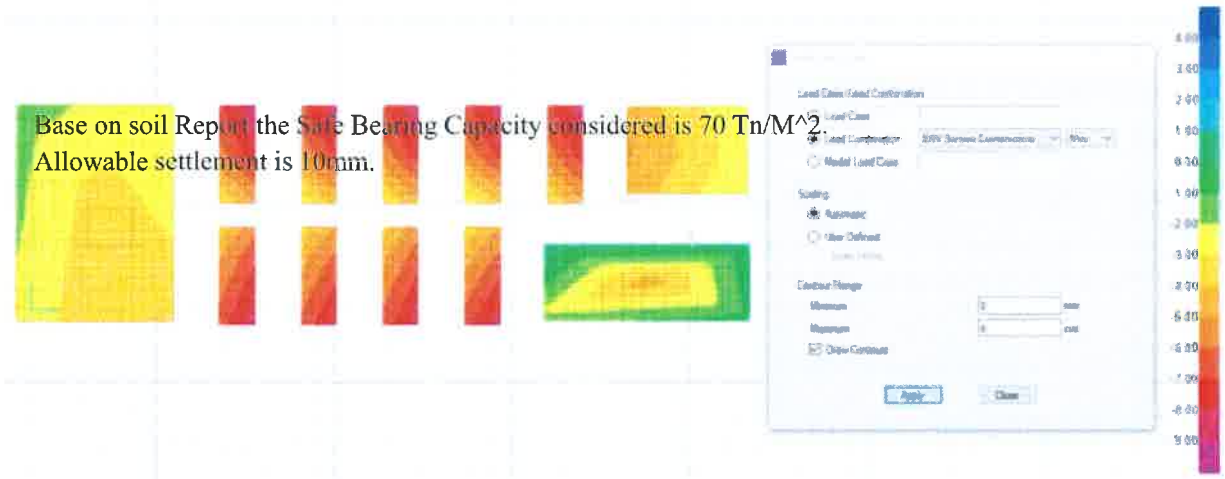
Deformations and pressures are checked for service load combinations as follows:

1) D.L + L.L
2) D.L + WX
3) D.L - WX
4) D.L + WY
5) D.L – WY
6) D.L + EQX
7) D.L – EQX
8) D.L + EQY
9) D.L – EQY
10) D.L + L.L + 0.8 WX
11) D.L + L.L - 0.8 WX
12) D.L + L.L + 0.8 WY
13) D.L + L.L – 0.8 WY
14) D.L + L.L + 0.8 EQX
15) D.L + L.L – 0.8 EQX
16) D.L + L.L + 0.8 EQY
17) D.L + L.L – 0.8 EQY



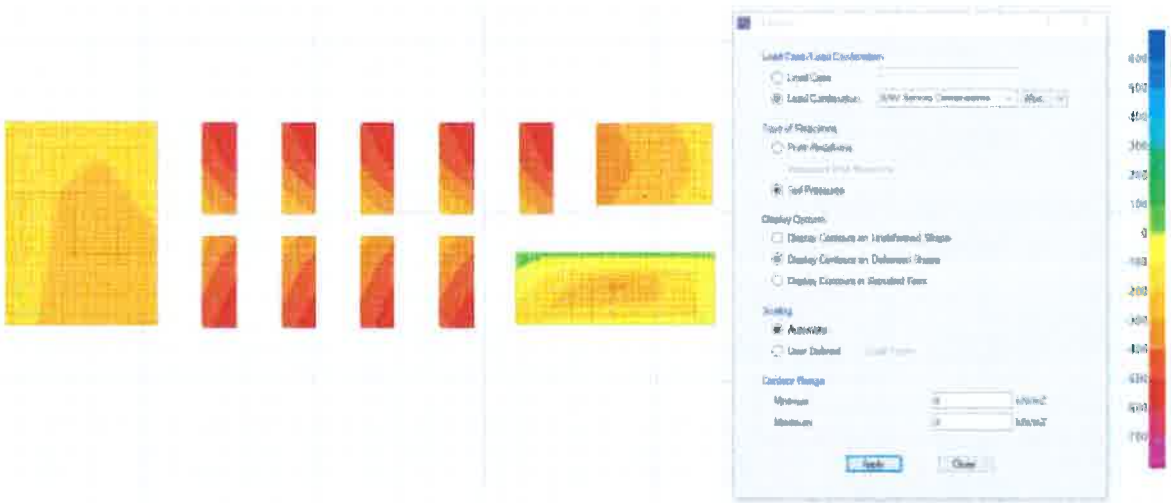


Deformations

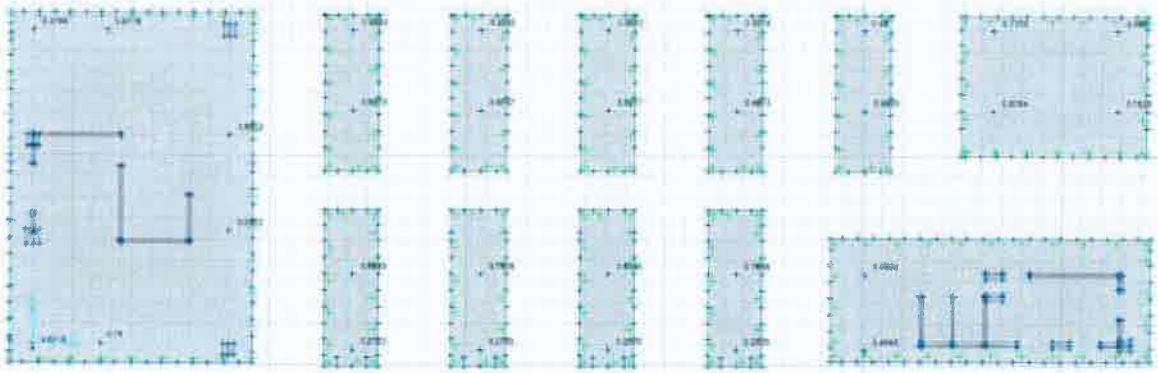


Base on soil Report the Safe Bearing Capacity considered is 70 Tn/M^2.
Allowable settlement is 10mm.

Pressure distribution



Punching shear values for columns.



One way shear check at distance 'd' from column face

Tv = Vu*1000/(b*deff)

= 625*1000/(1000*1400)

= 0.446

Tc = 100As/(b*deff) and by interpolation for M30 grade

= 0.448

Tc value does not exceed Tv for M30 grade of concrete, shear reinforcement not required.

Provision for MS chairs is to be provided (10 dia. bar at a spacing of 500mm) is to be kept.

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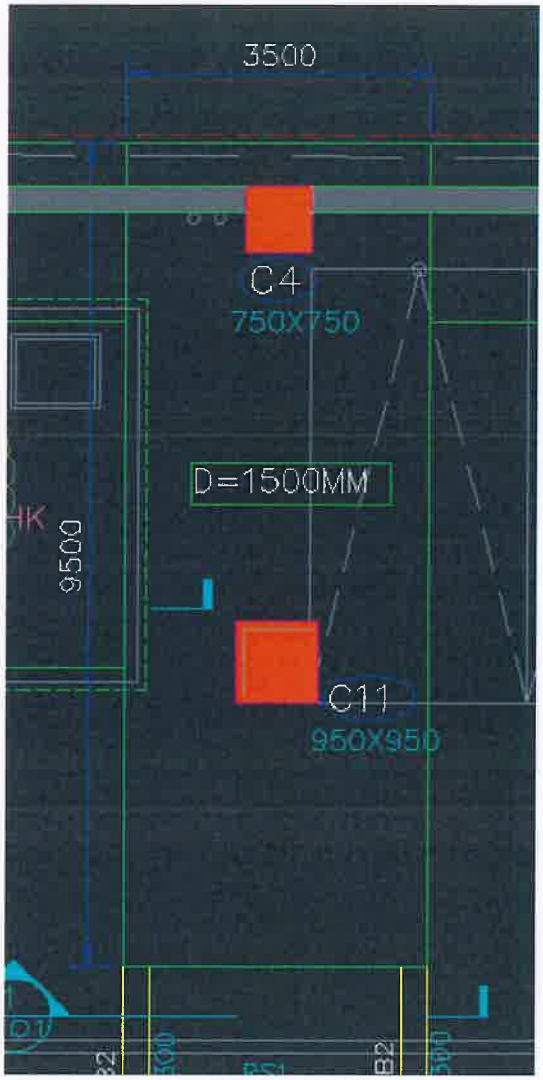
Sample Foundation reinforcement for column C4 & C11

Grade of concrete = M30

Grade of steel = Fe500

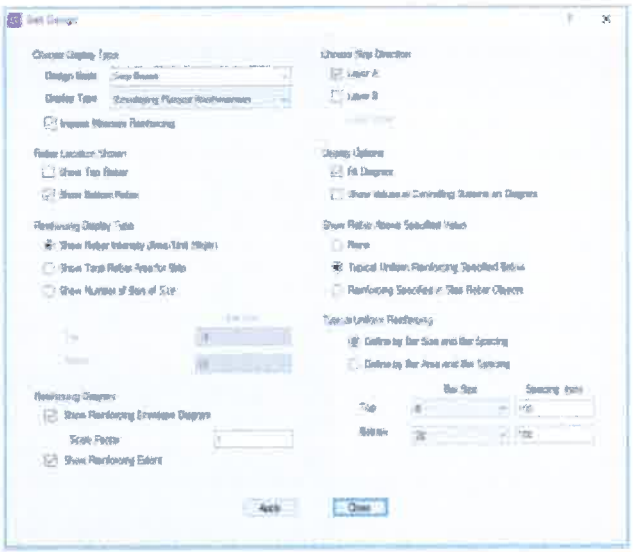
Depth = 1500 mm

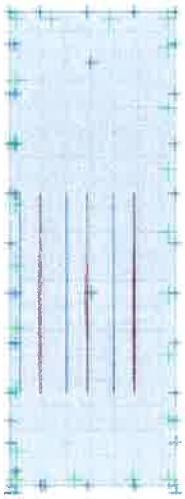

3500
C4
750X750
D=1500MM
9500
C11
950X950



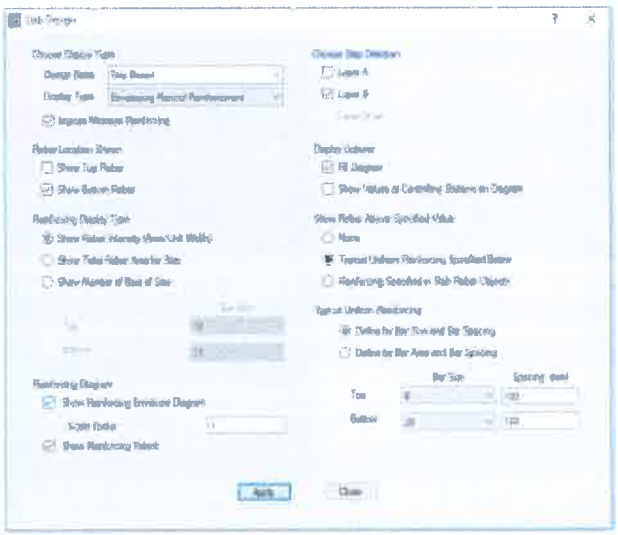
Botto
m y


D=1500MM
LAYOUT OF FOUNDATION LEVEL
(BOTTOM 'Y' DIRECTION)






D=1500MM
LAYOUT OF FOUNDATION LEVEL
(BOTTOM 'Y' DIRECTION)

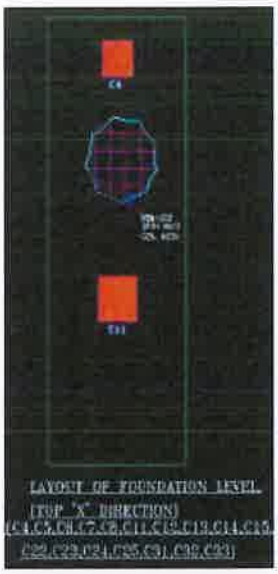


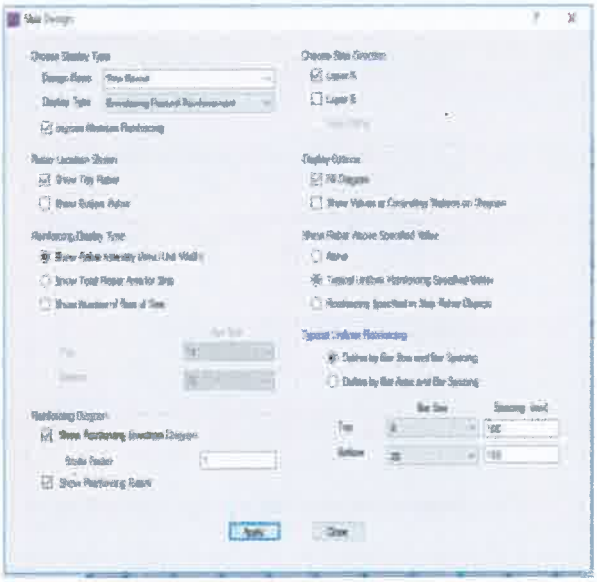
98



Top
x

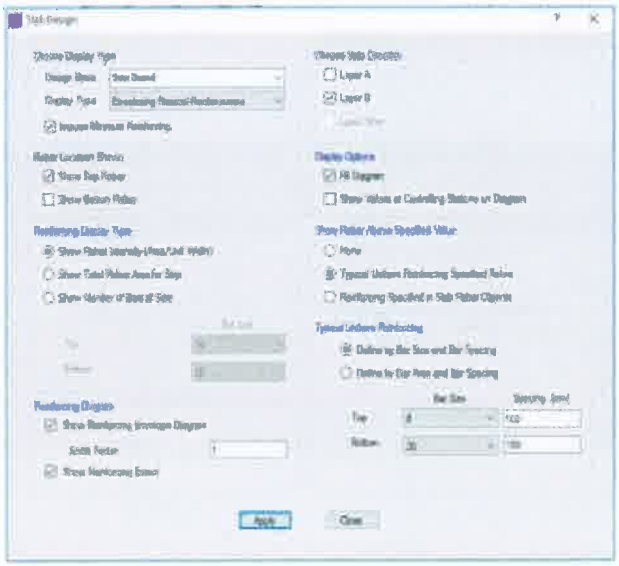
Top
y











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Upward Pressure Calculation For Raft Slab and Beam Design

Water Table	-4.2	m lvl
PCC Top to Tremix Top	1950	mm
FFL of Basement	-8.4	m Lvl
Tremix Thickness	150	mm
Rubble Thickness	225	mm
Murrum Filling Above Raft	1325	mm
PCC Top	-10.35	m Lvl
PCC Thk	100	mm
Raft Slab Thk	250	mm
Raft Beam Thickness	750	mm
Upward Pressure	20.65	KN/M2

Connecting Raft Slab Design calculations



DESIGN OF ONE WAY SLAB

Span Marked		B2-RS								
Short Span L	=	4.75	mt.		Fy	Main	=	500	N/sqmm	
Let Depth D	=	250	mm		Dia.	Main	=	12	mm	
Dead load	=	6.250	KN/m²		Fy	Distribution	=	500	N/sqmm	
Live load	=	12.50	KN/m²		Dia.	Distribution	=	10	mm	
Floor finish	=	0.00	KN/m²			Fck	=	30	N/sqmm	
Filling/Steps	=	0.00	KN/m²			Cover	=	20	mm	
TOTAL LOAD	=	18.75	KN/m²			Effective Depth	=	224	mm	

B.M = 1.5 x 18.8 x (4.75)² / 8

= 79.321 KN-m/m

A_{st} = 871 mm²

Provide ϕ 12 @ 125 c/c A_{st} = 904.78 mm²

Refer to fig.4 pg 38 IS 456:2000

f_s = 0.58 x Fy x $\frac{A_{st}}{A_{st}}$

= 0.58 x 500 x $\frac{870.9}{904.8}$

f_s = 279.1 N/mm²

P_t prov = 0.40 %

Read MF = 1.139262872

Required d = $\frac{4750}{1.139262872 \times 20}$ = 208.47 mm < d_{prov} SAFE

Distribution Reinf = 0.12 x 2500 = 300 mm²/m

Reqd. spacing = 262 mm

Provided spacing = 250 mm

SUMMARY					
D	=	250	mm		
REINFORCEMENT					
Main Steel	=	12	@	125	mm c/c
Distribution Steel	=	10	@	250	mm c/c

Raft Beam Design

Sample Raft beam RB1 is designed in etab for UDL of 55 kn/m, Size 750 X 350 mm.

Reinforcement provided is mentioned in the drawing.

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12. SAMPLE COLUMN DESIGN – C11, Etab Id = C17

TABLE: Concrete Column Design Summary - IS 456-2000

Story	Label	UniqueName	DesignSect	DesignOpt	Status	PMMCombo	Astmin
							mm²
LMR-OHT BT	C17	1669	C750X300M30	Design	No Message	DCon21	1800
LMR-OHT BT	C17	1669	C750X300M30	Design	No Message	DCon54	1800
LMR-OHT BT	C17	1669	C750X300M30	Design	No Message	DCon53	1800
Terrace	C17	178	C750X750M30	Design	No Message	DCon2	4500
Terrace	C17	178	C750X750M30	Design	No Message	DCon2	4500
Terrace	C17	178	C750X750M30	Design	No Message	DCon2	4500
Blh	C17	253	C750X750M30	Design	No Message	DCon45	4500
Blh	C17	253	C750X750M30	Design	No Message	DCon2	4500
Blh	C17	253	C750X750M30	Design	No Message	DCon2	4500
7th	C17	328	C750X750M30	Design	No Message	DCon54	4500
7th	C17	328	C750X750M30	Design	No Message	DCon2	4500
7th	C17	328	C750X750M30	Design	No Message	DCon54	4500
6th	C17	403	C750X750M30	Design	No Message	DCon54	4500
6th	C17	403	C750X750M30	Design	No Message	DCon54	4500
6th	C17	403	C750X750M30	Design	No Message	DCon51	4500
5th	C17	478	C750X750M30	Design	No Message	DCon41	4500
5th	C17	478	C750X750M30	Design	No Message	DCon54	4500
5th	C17	478	C750X750M30	Design	No Message	DCon6	4500
4th	C17	653	C750X750M40	Design	No Message	DCon54	4500
4th	C17	653	C750X750M40	Design	No Message	DCon54	4500
4th	C17	653	C750X750M40	Design	No Message	DCon54	4500
3rd	C17	763	C750X750M40	Design	No Message	DCon51	4500
3rd	C17	763	C750X750M40	Design	No Message	DCon54	4500
3rd	C17	763	C750X750M40	Design	No Message	DCon21	4500
2nd	C17	874	C750X750M40	Design	No Message	DCon8	4500
2nd	C17	874	C750X750M40	Design	No Message	DCon16	4500
2nd	C17	874	C750X750M40	Design	No Message	DCon46	4500
1st	C17	945	C950X950M40	Design	No Message	DCon2	7220
1st	C17	541	C950X950M40	Design	No Message	DCon2	7220
1st	C17	541	C950X950M40	Design	No Message	DCon2	7220
GR	C17	29	C950X950M40	Design	No Message	DCon54	7220
GR	C17	29	C950X950M40	Design	No Message	DCon54	7220
GR	C17	29	C950X950M40	Design	No Message	DCon54	7220
Basement 1	C17	1017	C950X950M40	Design	No Message	DCon18	7220
Basement 1	C17	1017	C950X950M40	Design	No Message	DCon18	7220
Basement 1	C17	1017	C950X950M40	Design	No Message	DCon54	7220

As	Mid Bar As	CornerBarAs	VMajCombo	VMajRebar	VMinCombo	VMinRebar	WarnMsg	ErrMsg
mm²	mm²	mm²		mm²/m		mm²/m		
6598	550	550	DCon56	332.53	DCon56	831.33	No Message	No Message
5275	440	440	DCon56	332.53	DCon56	831.33	No Message	No Message
3981	332	332	DCon45	339.69	DCon56	831.33	No Message	No Message
4500	375	375	DCon56	831.33	DCon56	831.33	No Message	No Message
4500	375	375	DCon56	831.33	DCon56	831.33	No Message	No Message
4500	375	375	DCon56	831.33	DCon56	831.33	No Message	No Message
4944	412	412	DCon56	831.33	DCon56	831.33	No Message	No Message
4500	375	375	DCon56	831.33	DCon56	831.33	No Message	No Message
5004	417	417	DCon56	831.33	DCon56	831.33	No Message	No Message
7499	625	625	DCon56	831.33	DCon56	831.33	No Message	No Message
7491	624	624	DCon56	831.33	DCon56	831.33	No Message	No Message
6000	500	500	DCon56	831.33	DCon56	831.33	No Message	No Message
11374	948	948	DCon56	831.33	DCon56	831.33	No Message	No Message
7530	627	627	DCon56	831.33	DCon56	831.33	No Message	No Message
7246	604	604	DCon56	831.33	DCon56	831.33	No Message	No Message
10711	893	893	DCon56	831.33	DCon56	831.33	No Message	No Message
11709	976	976	DCon56	831.33	DCon56	831.33	No Message	No Message
10541	878	878	DCon56	831.33	DCon56	831.33	No Message	No Message
8948	746	746	DCon56	831.33	DCon56	831.33	No Message	No Message
8910	742	742	DCon56	831.33	DCon56	831.33	No Message	No Message
8492	708	708	DCon56	831.33	DCon56	831.33	No Message	No Message
12661	1055	1055	DCon56	831.33	DCon56	831.33	No Message	No Message
11666	972	972	DCon56	831.33	DCon56	831.33	No Message	No Message
11435	953	953	DCon56	831.33	DCon56	831.33	No Message	No Message
15630	1303	1303	DCon56	831.33	DCon56	831.33	No Message	No Message
17423	1452	1452	DCon56	831.33	DCon56	831.33	No Message	No Message
16597	1383	1383	DCon56	831.33	DCon56	831.33	No Message	No Message
16048	1337	1337	DCon56	1053.01	DCon56	1053.01	No Message	No Message
15951	1329	1329	DCon56	1053.01	DCon56	1053.01	No Message	No Message
16069	1339	1339	DCon56	1053.01	DCon56	1053.01	No Message	No Message
8467	706	706	DCon56	1053.01	DCon56	1053.01	No Message	No Message
7935	661	661	DCon56	1053.01	DCon56	1053.01	No Message	No Message
8074	673	673	DCon56	1053.01	DCon56	1053.01	No Message	No Message
12730	1061	1061	DCon56	1053.01	DCon56	1053.01	No Message	No Message
13633	1136	1136	DCon56	1053.01	DCon56	1053.01	No Message	No Message
10444	870	870	DCon56	1053.01	DCon56	1053.01	No Message	No Message
								No Message

13. SAMPLE BEAM DESIGN

Upper Basement:

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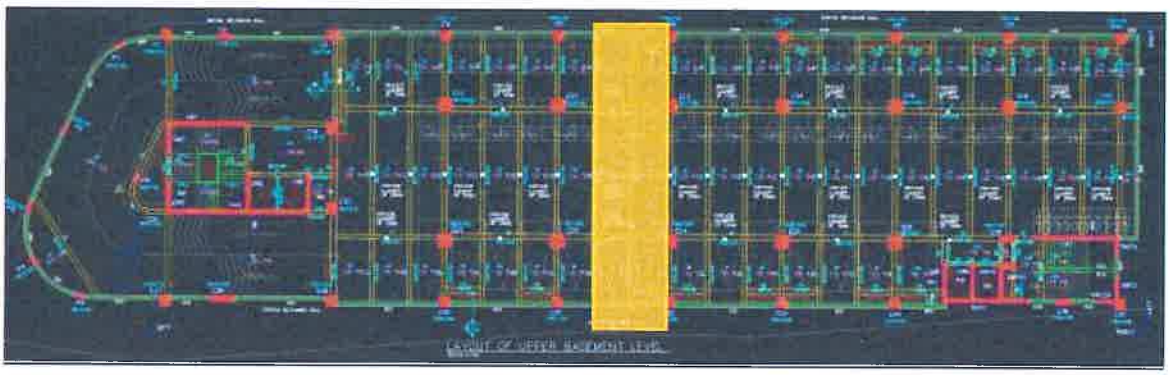
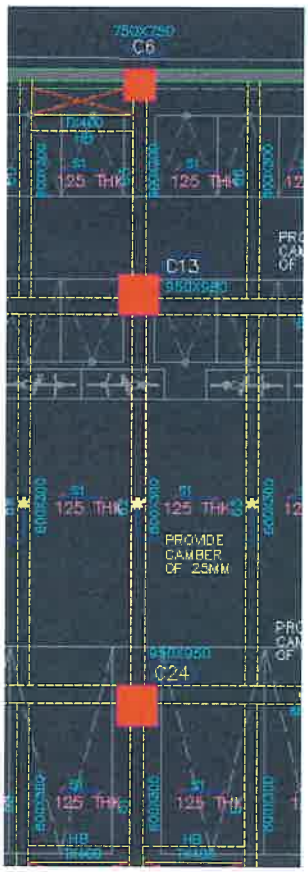



C6
C13
C24
125 THK
PROVIDE
CAMBER
OF 25MM

13.1 Beam B61 (Reference Layout of Upper basement), Etab Id = B37.

IS 456:2000 Beam Section Design



Beam Element Details Type: Ordinary Frame (Summary)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
Basement 1	B37	996	B600X300M40	DCon17	4151.3	4612.5	1

Section Properties

b (mm)	h (mm)	b_f (mm)	d_s (mm)	d_{sc} (mm)	d_{sc} (mm)
300	600	300	0	40	40

Material Properties

E_c (kN/mm²)	f_{ck} (kN/mm²)	Lt.Wt Factor (Unitless)	f_y (kN/mm²)	f_{ys} (kN/mm²)
31.6228	0.04	1	0.5	0.5

Design Code Parameters

γ_c	γ_s
1.5	1.15

Factored Forces and Moments

Factored M_{u3} kN-mm	Factored T_u kN-mm	Factored V_{u2} kN	Factored P_u kN
-97910.75	6.83	88.5631	0

Design Moments, M_{u3} & M_t

Factored Moment kN-mm	Factored M_t kN-mm	Positive Moment kN-mm	Negative Moment kN-mm
-97910.75	12.65	0	-97922.8

Design Moment and Flexural Reinforcement for Moment, M_{u3} & T_u

	Design -Moment kN-mm	Design +Moment kN-mm	-Moment Rebar mm²	+Moment Rebar mm²	Minimum Rebar mm²	Required Rebar mm²
Top (+2 Axis)	-97922.8		415	0	415	306
Bottom (-2 Axis)		0	0	0	0	0

Shear Force and Reinforcement for Shear, V_{u2} & T_u

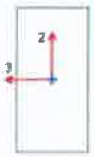
Shear V_u kN	Shear V_c kN	Shear V_s kN	Shear V_p kN	Rebar A_{sv} /s mm²/mm
88 5831	63 4556	67 2	63 8615	0 33

Torsion Force and Torsion Reinforcement for Torsion, T_u & V_{u2}

T_u kN-mm	V_u kN	Core b_1 mm	Core d_1 mm	Rebar A_{vt} /s mm²/mm
6 83	88 5831	240	540	0

13.2 Beam B62 (Reference Layout of Upper basement), Etab Id = B99.

IS 456:2000 Beam Section Design



Beam Element Details Type: Ordinary Frame (Summary)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
Basement 1	B99	997	B600X300M40	DCon2	9475.1	9950.1	0.759

Section Properties

b (mm)	h (mm)	b_f (mm)	d_s (mm)	d_{c2} (mm)	d_{c3} (mm)
300	600	300	0	40	40

Material Properties

E_c (kN/mm²)	f_{ck} (kN/mm²)	Lt.Wt Factor (Unitless)	f_y (kN/mm²)	f_{yr} (kN/mm²)
31.6228	0.04	1	0.5	0.5

Design Code Parameters

γ_c	γ_s
1.5	1.15

Factored Forces and Moments

Factored M_{u3} kN-mm	Factored T_u kN-mm	Factored V_{u2} kN	Factored P_u kN
-452354.46	19.27	433.6999	0

Design Moments, M_{u3} & M_t

Factored Moment kN-mm	Factored M_t kN-mm	Positive Moment kN-mm	Negative Moment kN-mm
-452354.46	34.01	0	-452388.46

Design Moment and Flexural Reinforcement for Moment, M_{u3} & T_u

	Design -Moment kN-mm	Design +Moment kN-mm	-Moment Rebar mm²	+Moment Rebar mm²	Minimum Rebar mm²	Required Rebar mm²
Top (+2 Axis)	-452388.46		2235	0	2235	306
Bottom (-2 Axis)		0	0	0	0	0

Shear Force and Reinforcement for Shear, V_{u2} & T_u

Shear V_u kN	Shear V_c kN	Shear V_s kN	Shear V_p kN	Rebar A_{sv} /s mm²/mm
433.6999	127.0224	306.7773	75.1317	1.52

Torsion Force and Torsion Reinforcement for Torsion, T_u & V_{u2}

T_u kN-mm	V_u kN	Core b_1 mm	Core d_1 mm	Rebar A_{vt} /s mm²/mm
19.27	433.6999	240	540	0

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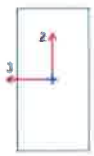
13.3 Beam B63 (Reference Layout of Upper basement), Etab Id = B228.

IS 456:2000 Beam Section Design



Beam Element Details Type: Ordinary Frame (Summary)

Level	Element	Unique Name	Section ID	Combo ID	Station Loc	Length (mm)	LLRF
Basement 1	B228	956	B600X300M40	DCon17	4839.9	5214.9	1

Section Properties

b (mm)	h (mm)	b_f (mm)	d_s (mm)	d_{cs} (mm)	d_{cb} (mm)
300	600	300	0	40	40

Material Properties

E_c (kN/mm²)	f_{ck} (kN/mm²)	Lt.Wt Factor (Unitless)	f_t (kN/mm²)	f_{ty} (kN/mm²)
31.6228	0.04	1	0.5	0.5

Design Code Parameters

γ_c	γ_s
1.5	1.15

Factored Forces and Moments

Factored M_{u3} kN-mm	Factored T_u kN-mm	Factored V_{u2} kN	Factored P_u kN
-111614.84	27.32	126.8452	0

Design Moments, M_{u3} & M_t

Factored Moment kN-mm	Factored M_t kN-mm	Positive Moment kN-mm	Negative Moment kN-mm
-111614.84	48.22	0	111663.06

Design Moment and Flexural Reinforcement for Moment, M_{u3} & T_u

	Design -Moment kN-mm	Design +Moment kN-mm	-Moment Rebar mm²	+Moment Rebar mm²	Minimum Rebar mm²	Required Rebar mm²
Top (+2 Axis)	-111663.06		476	0	476	306
Bottom (-2 Axis)		0	0	0	0	0

Shear Force and Reinforcement for Shear, V_{u2} & T_u

Shear V_u kN	Shear V_c kN	Shear V_s kN	Shear V_p kN	Rebar A_{sv} /s mm²/mm
126.8462	66.7362	67.2	59.7751	0.33

Torsion Force and Torsion Reinforcement for Torsion, T_u & V_{u2}

T_u kN-mm	V_u kN	Core b_1 mm	Core d_1 mm	Rebar A_{vt} /s mm²/mm
27.32	126.8462	240	540	0

14. SAMPLE SHEAR WALL DESIGN

Sample design of SW1, Etab Pier Label = SW1:

TABLE: Shear Wall Pier Design Summary - IS 456 2000

Story	Pier Label	Station	Design Type	Rebar Spacing	Required Reinf. Percentage
				mm	%
LMR-OHT TP	SW1	Top	Uniform	250	0.25
LMR-OHT TP	SW1	Bottom	Uniform	250	0.25
Parapet Level	SW1	Top	Uniform	250	0.25
Parapet Level	SW1	Bottom	Uniform	250	0.25
LMR-OHT BT	SW1	Top	Uniform	250	0.25
LMR-OHT BT	SW1	Bottom	Uniform	250	0.25
Terrace	SW1	Top	Uniform	250	0.25
Terrace	SW1	Bottom	Uniform	250	0.25
8th	SW1	Top	Uniform	250	0.25
8th	SW1	Bottom	Uniform	250	0.25
7th	SW1	Top	Uniform	250	0.25
7th	SW1	Bottom	Uniform	250	0.25
6th	SW1	Top	Uniform	250	0.25
6th	SW1	Bottom	Uniform	250	0.25
5th	SW1	Top	Uniform	250	0.25
5th	SW1	Bottom	Uniform	250	0.25
4th	SW1	Top	Uniform	250	0.25
4th	SW1	Bottom	Uniform	250	0.25
3rd	SW1	Top	Uniform	250	0.25
3rd	SW1	Bottom	Uniform	250	0.25
2nd	SW1	Top	Uniform	250	0.25
2nd	SW1	Bottom	Uniform	250	0.43
1st	SW1	Top	Uniform	250	0.35
1st	SW1	Bottom	Uniform	250	0.63
GR	SW1	Top	Uniform	250	0.41
GR	SW1	Bottom	Uniform	250	0.5
Basement 1	SW1	Top	Uniform	250	0.42
Basement 1	SW1	Bottom	Uniform	250	0.65

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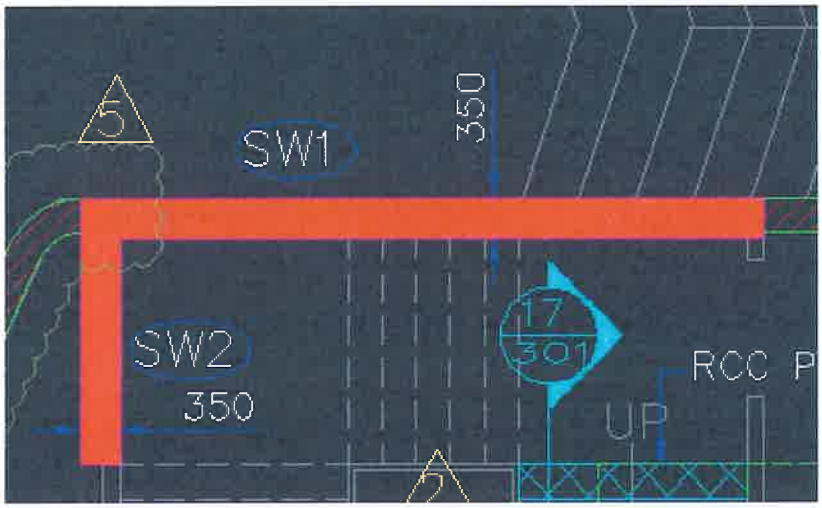
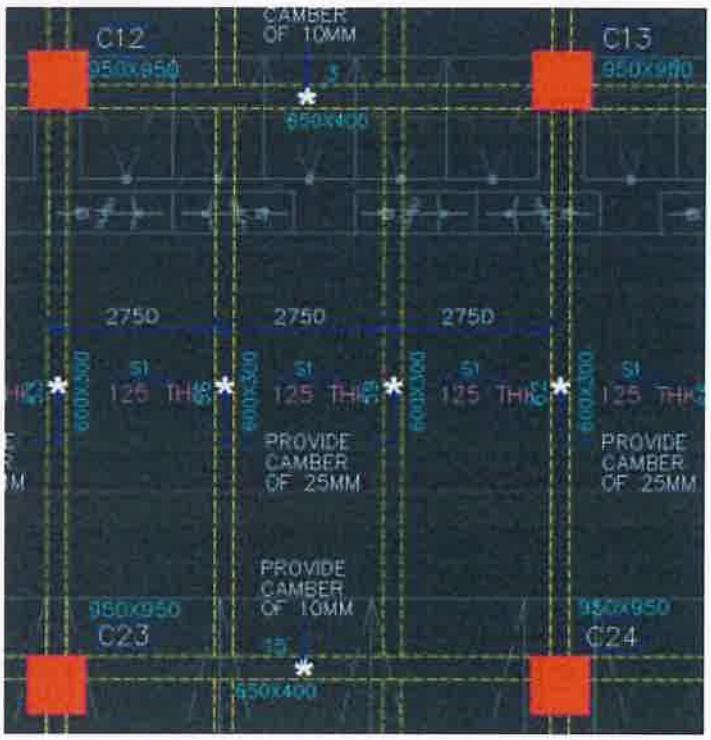
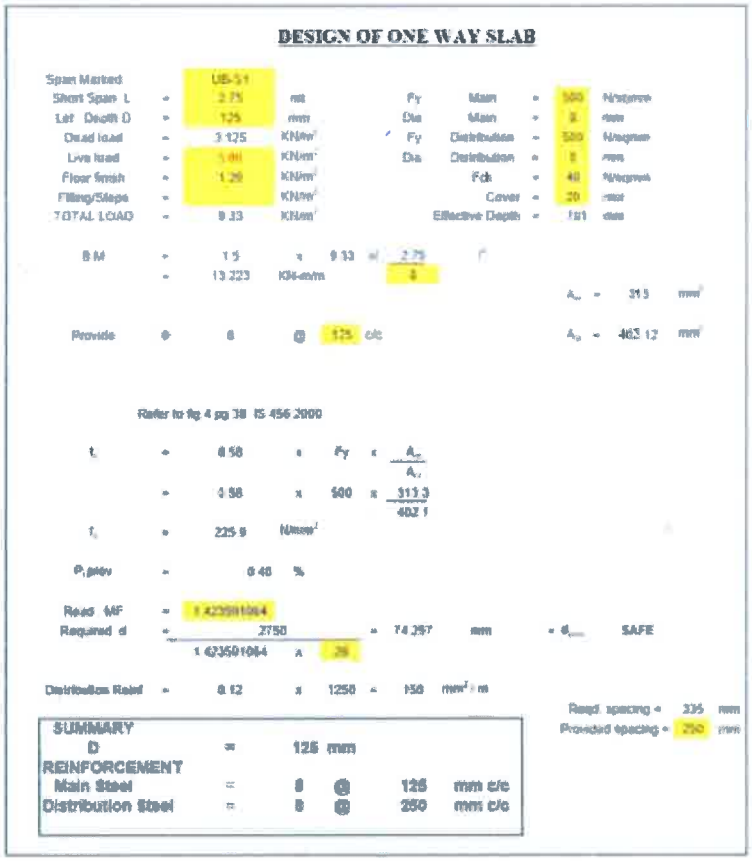


Current Reinf. Percentage	Shear Rebar	Boundary Zone Left	Boundary Zone Right	Warnings	Errors
%	mm²/m	mm	mm		
0.22	750			No Message	No Message
0.22	750			No Message	No Message
0.22	750			No Message	No Message

15. SAMPLE SLAB DESIGN

15.1 Upper Basement - S2





DESIGN OF ONE WAY SLAB

Span Marked		US-S1						
Short Span L	=	2.75	m	Fy	Main	=	500	N/sqmm
Let Depth D	=	125	mm	Dia	Main	=	8	mm
Dead load	=	3.125	KN/m²	Fy	Distribution	=	500	N/sqmm
Live load	=	5.00	KN/m²	Dia	Distribution	=	8	mm
Floor finish	=	1.25	KN/m²		Fck	=	40	N/sqmm
Filling/Steps	=		KN/m²		Cover	=	20	mm
TOTAL LOAD	=	9.33	KN/m²		Effective Depth	=	101	mm

BM = 1.5 x 9.33 x 2.75 / 8

= 13.223 KN-m/m

A_{st} = 315 mm²

Provide 8 @ 125 c/c A_{st} = 402.12 mm²

Refer to fig 4 pg 38 IS 456:2000

t_v = 0.58 x F_y x A_{st} / A_c

= 0.58 x 500 x 315.3 / 402.1

t_v = 225.9 N/mm²

P_t prov = 0.48 %

Read MF = 1.423501064

Required d = 2750 / (1.423501064 x 26) = 74.267 mm < d_{req} SAFE

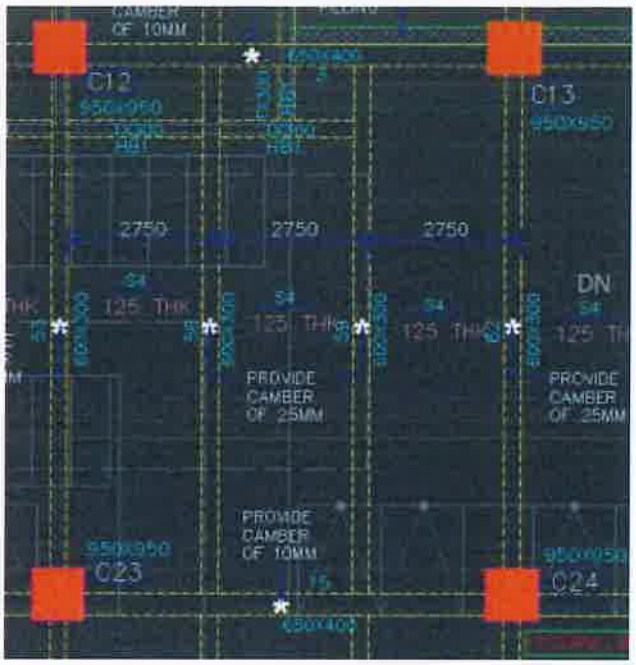
Distribution Reinf = 0.12 x 1250 = 150 mm²/m

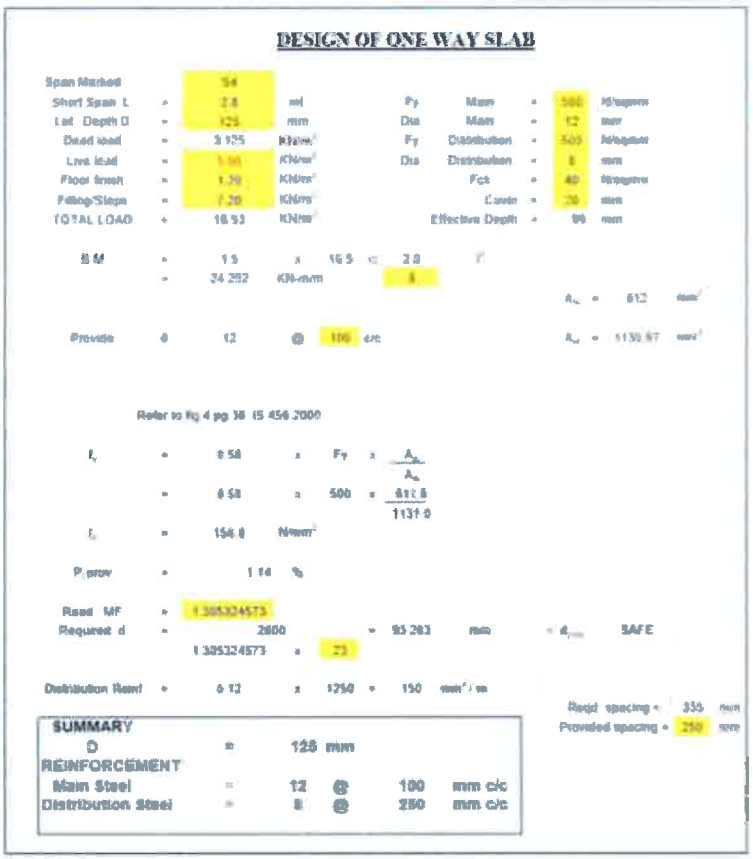
Reqd spacing = 335 mm

Provided spacing = 250 mm

SUMMARY				
D	=	125 mm		
REINFORCEMENT				
Main Steel	=	8	@	125 mm c/c
Distribution Steel	=	8	@	250 mm c/c

15.2 Ground Floor - S4


C12
C13
C23
C24
2750
2750
2750
PROVIDE CAMBER OF 25MM
PROVIDE CAMBER OF 25MM
PROVIDE CAMBER OF 10MM
DN



DESIGN OF ONE WAY SLAB

Span Marked		S4							
Short Span L	=	2.8	m		Fy	Main	=	500	N/mm²
Let Depth D	=	125	mm		Dia	Main	=	12	mm
Dead load	=	3.125	KN/m²		Fy	Distribution	=	500	N/mm²
Live load	=	3.50	KN/m²		Dia	Distribution	=	8	mm
Floor finish	=	1.20	KN/m²			Fct	=	40	N/mm²
Filling/Steps	=	7.20	KN/m²			Cover	=	20	mm
TOTAL LOAD	=	16.53	KN/m²			Effective Depth	=	99	mm

B M = 1.5 x 16.5 x 2.8 / 8

= 34.282 KN-m/m

A_{st} = 612 mm²

Provide 8 12 @ 185 c/c A_{st} = 1130.97 mm²

Refer to Fig 4 pg 38 IS 456:2000

f_y = 0.58 x Fy x A_{st} / A_{st}

= 0.58 x 500 x 611.8 / 1131.0

f_s = 154.8 N/mm²

P prov = 1.14 %

Read MF = 1.385324573

Required d = 2800 / 1.385324573 = 95.283 mm < d_{req} SAFE

1.385324573 < 23

Distribution Reinf = 8 T2 x 1250 = 150 mm²/m

Read spacing = 335 mm

Provided spacing = 250 mm

SUMMARY

D = 125 mm

REINFORCEMENT

Main Steel = 12 @ 100 mm c/c

Distribution Steel = 8 @ 250 mm c/c

**Please note that extra filling load is considered as required by Arch. @ certain locations.

16. ANALYSIS FILE

Analysis files is included in the enclosure.

17. SOIL REPORT

7.2) As reported by the client considering double basement the probable depth of founding level is @ 10.5m from EGL. Raft Foundation may be provided for this site. The recommended allowable bearing capacity of 70T/m² can be considered for foundation design at 10.50m depth from EGL

7.3) At founding level strata should be verified & confirmed before laying the foundation with respect to uniform layer of Basalt rock formation. At founding level levelled surface shall be prepared by way of breaking / chiseling rock etc. All loose material shall be completely removed. In no case foundation shall be rested on slopping rock profile. Large cracks if observed shall be grouted with proper grout material. Over excavated rock surface shall be levelled by appropriate grade of PCC. Excavations should not be kept exposed for prolonged periods of time, prior to pouring of concrete, as this will result in softening of the bedrock.

** Reference – Soil Report Clause 7 - Findings & Recommendations (7.2), Soil Report is included in the enclosure

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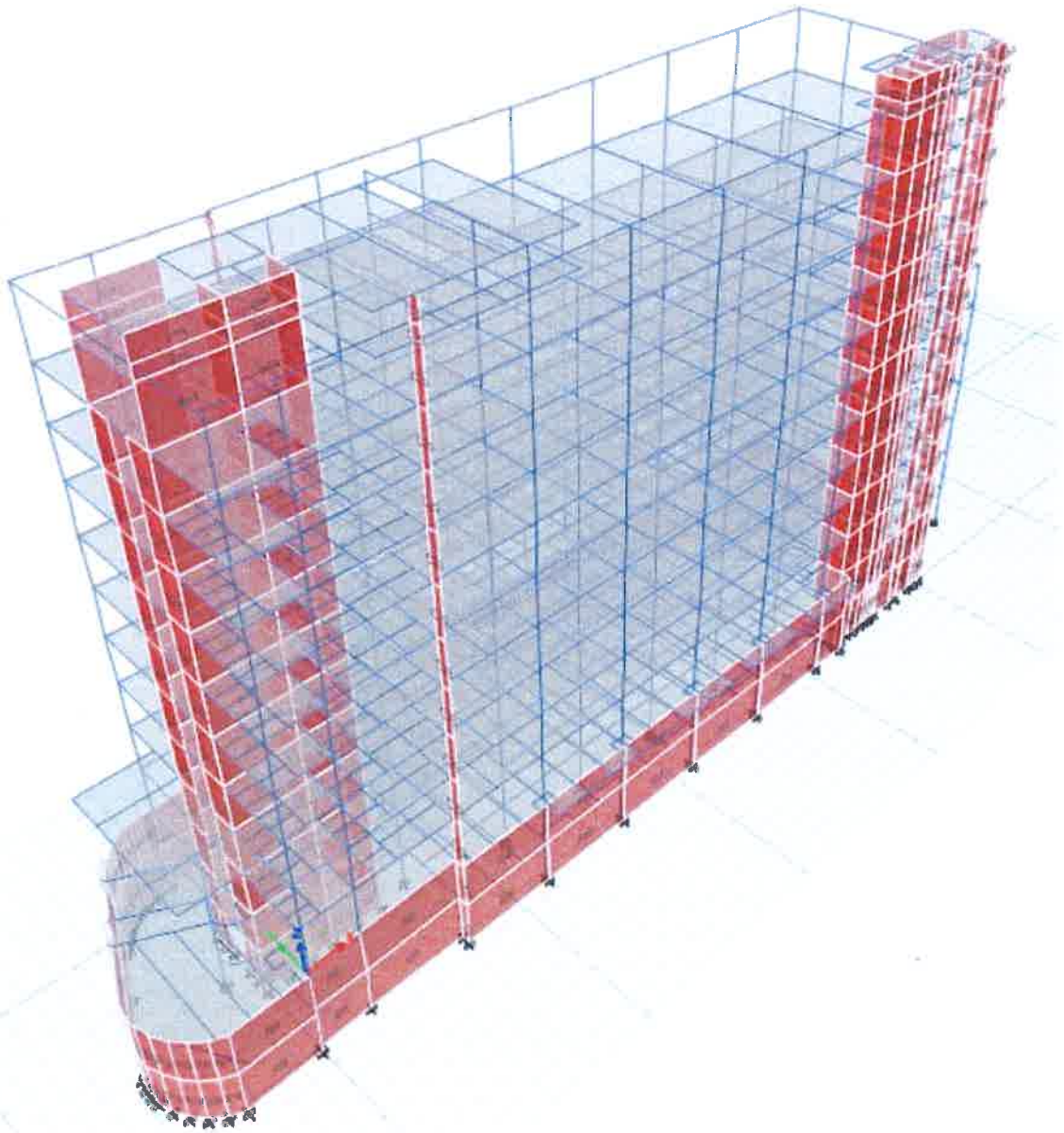
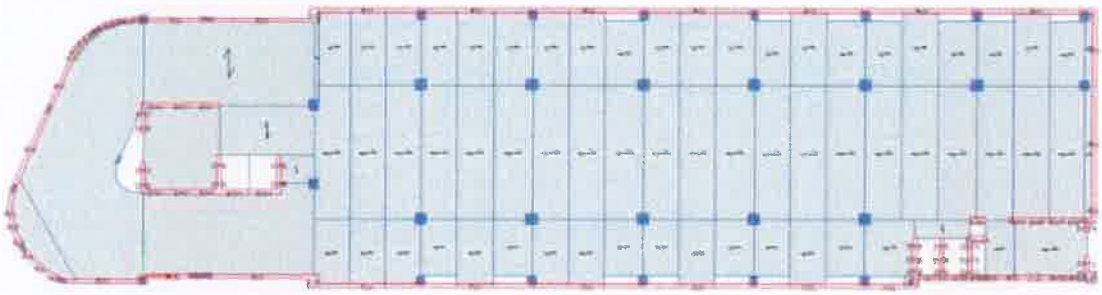
18. PLANS, ELEVETIONS & 3D-VIEW

18.1 3-D View

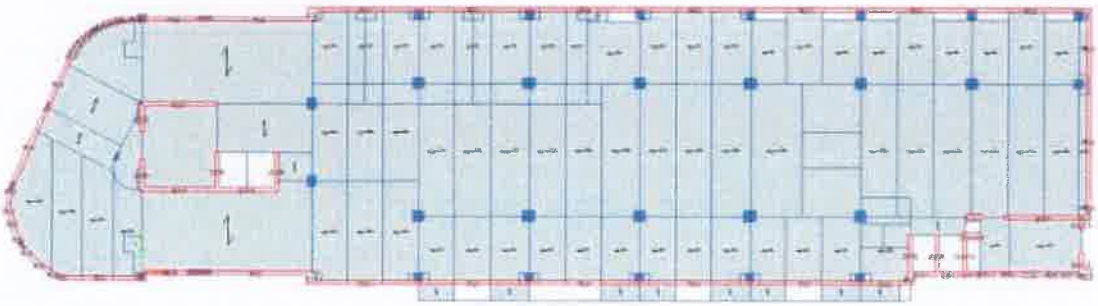


** Basement 2 (Foundation Level) is the base level with all supports assigned as fixed.

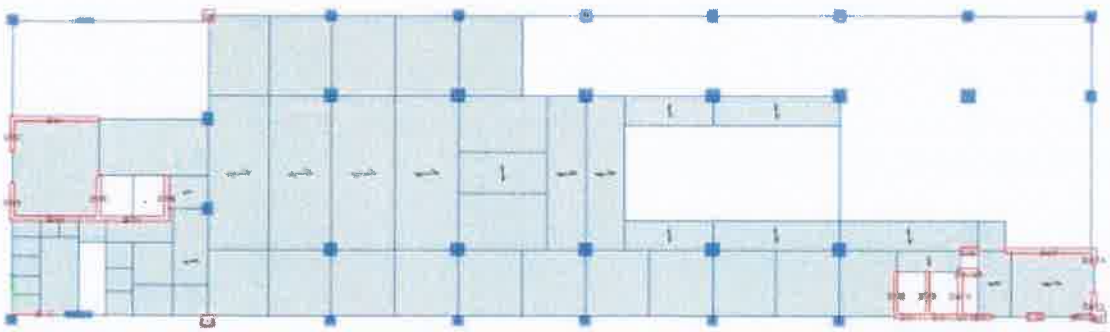
18.2 Upper basement Level Plan:



18.3 Ground Floor Level Plan:



18.4 1st Floor Level Plan for reference:



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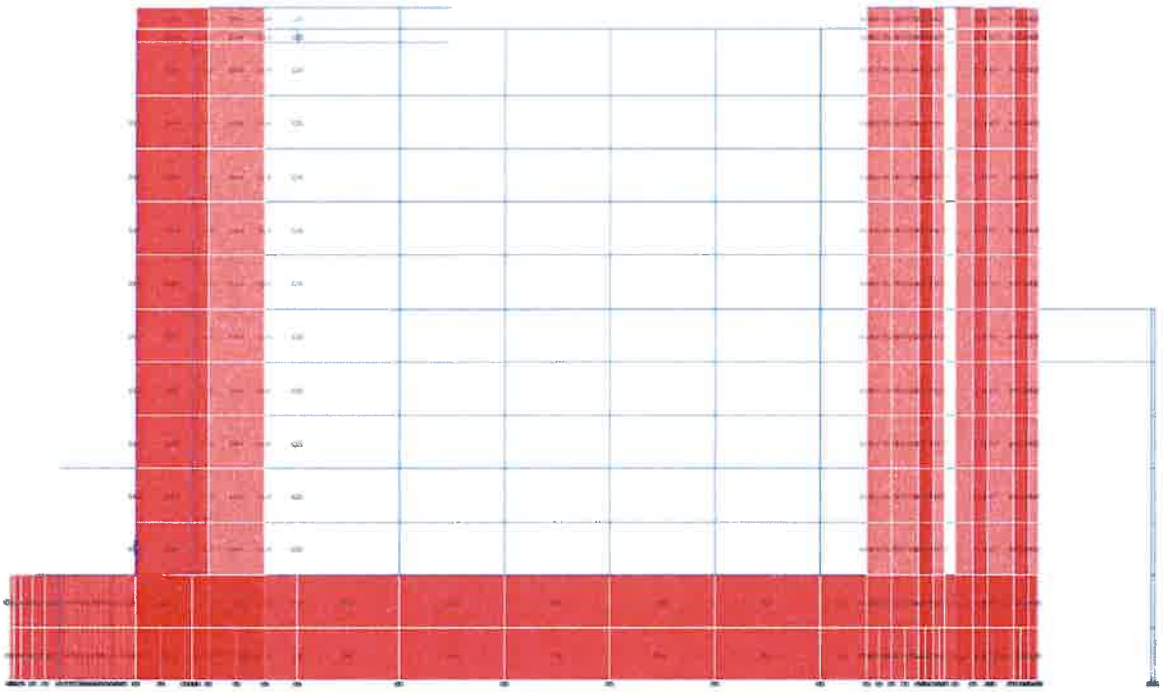
18.4 Elevation:



19. Time period Calculations for Earthquake Analysis

19.1 Time period in X – Direction:

MAHIMTURA CONSULTANTS PVT LTD.

Prepared Sandip

Project : Metro Mall | Job No. 9147

Time period calculations for buildings with RCC structural walls | Enter by Nikhil

Considered Direction X

24-03-2020 12:14

N_w	L_{wi}	W_{wi}	A_{wi}	h	$A_{wi}\{0.2+(\min(0.9,L_{wi}/h))\}^2$
	mm		mm	m	
1	5800	300	1740000	37.8	0.217359469
2	10365	300	3109500	37.8	0.699238432
3	5950	300	1785000	37.8	0.228015998
4	1160	450	522000	37.8	0.027779209
5	1310	450	589500	37.8	0.03245992
6	13050	300	3915000	37.8	1.163869133
7			0	37.8	0
8			0	37.8	0
9			0	37.8	0
10			0	37.8	0
11			0	37.8	0
12			0	37.8	0
13			0	37.8	0
14			0	37.8	0
15			0	37.8	0

$T_a = 0.75\ h^{0.75}/\sqrt{(A_w)} =$ T_x

$= 0.742887501$ sec

LX 70.71 m

LY 20.5275 m

$T_a =$ 0.4045702 sec

hence Tx = **0.7429** sec

19.2 Time period in Y – Direction:

MAHIMTURA CONSULTANTS PVT LTD.

Prepared Sandip

Project : Metro Mall | Job No. 9147

Time period calculations for buildings with RCC structural walls | Enter by Nikhil

Considered Direction Y

24-03-2020 12:14

N_w	L_{wi}	W_{wi}	A_{wi}	h	$A_{wi}\{0.2+(\min(0.9,L_{wi}/h))\}^2$
	mm		mm	m	
1	6735	300	2020500	37.8	0.28896389
2	2915	300	874500	37.8	0.067155916
3	2915	300	874500	37.8	0.067155916
4	3030	300	909000	37.8	0.071346425
5	3030	300	909000	37.8	0.071346423
6	3250	300	975000	37.8	0.079739297
7	4538	300	1361400	37.8	0.139453464
8			0	37.8	0
9			0	37.8	0
10			0	37.8	0
11			0	37.8	0
12			0	37.8	0
13			0	37.8	0
14			0	37.8	0
15			0	37.8	0
16			0	37.8	0

$T_a = 0.75\ h^{0.75}/\sqrt{(A_w)} =$ T_y

$= 1.290329608$ sec

LX 70.71

LY 20.5275

$T_a =$ 0.750872638 sec

hence Ty = **1.2903** sec

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PLUMBING DESIGN CRITERIA

TABLE OF CONTENTS:

1. General Information
2. Scope of work
3. Water Supply
   - 3.1 Water Demand
   - 3.2 Water Source
   - 3.3 Water Tank Capacities
   - 3.4 Distribution
   - 3.5 Material
4. Sanitary Drainage
   - 4.1 Type of System
   - 4.2 Infrastructure works
   - 4.3 Disposal Arrangement
   - 4.4 Material
5. Rain/ Storm Water Drainage
   - 5.1 Design parameters
   - 5.2 Basement Drainage
   - 5.3 Infrastructure works
   - 5.4 Disposal Arrangement
   - 5.5 Material

1. General Information

The project is planned as a commercial building with mixed occupancy and has a provision for mercantile businesses and offices which is connected to the Metro Station at fourth floor located at Nagpur. The building is G+ 8 floors with 2 basements.

2. Scope of work

The design basis report covers plumbing and sanitation provisions like water supply, sanitary drainage & disposal, rain/storm water drainage and disposal, pumping systems for water supply etc.

3. Water Supply

3.1 Water Demand

The water demand for the project is estimated as shown in water demand table.

3.2 Water Source

Source of water shall be Nagpur Municipal Corporation or bore well water (with proper treatment if reqd.) for domestic water requirements. Flushing and gardening requirements shall also be met from municipal water if easily available or any alternate source (without treatment).

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3.3 Water Tank Capacities

The tank capacities shall be as follows:

UGT:-

Domestic water Tank – 27.98 M^3

Flushing Water Tank – 20 M^3 Fire

Protection – 200 M^3

OHT:-

Domestic water Tank – 18.256 M^3

Flushing Water Tank – 18.256 M^3

Fire Protection – 20 M^3

WATER DEMAND TABLE

Sr. No.	Space Description	Area	Occupancy	Total Occupancy	Fixed Occupancy	Floating Occupancy	Domestic Water Requirement (ltrs.)	Flushing Water Requirement (ltrs.)	Remarks
1	Basement 01								
2	Basement 02								
3	Commercial shops on ground floor								
									Water req. per head per day (fixed);
3.1	Shop 1	22.51	8	8	1	7	53	83	DWS = 25Ltrs. & FWS
3.2	Shop 2-5	97.39	32	32	3	29	227	357	20Ltrs.
									Water req. per head per day (floating);
									DWS = 5Ltrs. & FWS
4	Commercial shops on first floor								
4.1	Shop 1	15.99	5	5	1	5	37	59	Water req. per head per day (fixed);
4.2	Shop 2 - 10	155.62	52	52	5	47	363	571	DWS = 25Ltrs. & FWS
4.3	Shop 11	15.01	5	5	1	5	35	55	20Ltrs.
4.4	Shop 12	18.19	6	6	1	5	42	67	Water req. per head per day (floating);
4.5	Shop 13 - 16	78.71	26	26	3	24	184	289	DWS = 5Ltrs. & FWS
									10Ltrs.
5	Commercial shops on second, third & fourth floor								
5.1	Shop 1	47.96	16	16	2	14	112	176	
5.2	Shop 2 - 10	466.86	156	156	16	140	1089	1712	Water req. per head per day (fixed);

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5.3	Shop 11	45.02	15	15	2	14	105	165	DWS = 25Ltrs. & FWS 20Ltrs. Water req. per head per day (floating); DWS = 5Ltrs. & FWS 10Ltrs.
5.4	Shop 12, 25	109.15	36	36	4	33	255	400	
5.5	Shop 13 - 24	708.35	236	236	24	213	1653	2597	
5.6	Shop 26	231.07	77	77	8	69	539	847	
7	**Offices on 5th, 7th & 8th floor.**								
									Water req. per head per day; DWS = 25Ltrs. & FWS 20Ltrs.
7.1	Office 1	188.37	38	38	-	-	942	753	
7.2	Office 2-5	782.46	156	156	-	-	3912	3130	
7.3	Office 6	83.32	17	17	-	-	417	333	
7.4	Office 7-13	376.74	75	75	-	-	1884	1507	
7.5	Office 8-12	782.46	156	156	-	-	3912	3130	
7.6	Office 14	231.07	46	46	-	-	1155	924	
8	**Offices on 6th floor.**								
									Water req. per head per day; DWS = 25Ltrs. & FWS 20Ltrs.
7.1	Office 1	62.79	13	13	-	-	314	251	
7.2	Office 2-5	260.82	52	52	-	-	1304	1043	
7.3	Office 6	27.77	6	6	-	-	139	111	
7.4	Office 7-13	125.58	25	25	-	-	628	502	
7.5	Office 8-12	260.82	52	52	-	-	1304	1043	
7.6	Office 14	61.27	12	12	-	-	306	245	
TOTAL							**20912**	**20351**	

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3.4 Distribution

The water from all the sources shall go into the fire tank and the overflow of the fire tank shall be directed to flow in the domestic water UG tank. The water from this tank is pumped to the overhead fire tank with the help of open well submersible pump sets. The overflow of the overhead fire tank is again allowed to enter the adjacent domestic overhead tank to maintain the volume of fire tank. Domestic water supply though the tank shall feed the RO system on terrace and all the Health faucets and wash basins through gravity. Drinking taps shall be supplied RO water through gravity with separate piping from the RO water tank. Separate pump sets shall fill the overhead flushing tank which shall supply water to WC inlets and urinals through gravity.

3.5 Material Proposed

As per Metro Specifications & CPWD

From Source to Tanks: GI pipes confirming to IS 1239 Part I (heavy grade 'c' class pipe)

Pumped Lines: GI pipes confirming to IS 1239 Part I (heavy grade 'c' class pipe) **In Shafts for Domestic & Flushing:** GI pipes confirming to IS 1239 Part I (heavy grade 'c' class pipe)

Internal Toilet Piping: GI pipes confirming to IS 1239 Part I (heavy grade 'c' class pipe)

4. Sanitary Drainage

4.1 The discharge from the Water closets and Urinals shall be connected to a separate soil stack and the discharge from the wash basin and floor drains shall be connected to a separate waste stack. There shall be two separate vertical stacks in ducts to carry discharge from the separate Plumbing fixtures. The discharge from the soil pipe shall connect directly to the chamber underground on ground floor. The discharge from the waste pipe shall connect to gully trap before connecting to chamber.

Diameter of pipes shall be as follows:

Minimum Soil pipe dia. – 110mm Minimum Waste pipe dia. – 75mm Soil pipe down-comers – 110mm Waste pipe down-comers – 75mm

4.2 Infrastructure works

The down-comers carrying the waste and soil discharge shall connect to chamber constructed underground at ground level. All the individual down- comers shall connect to separate chambers. The chambers shall be interconnected and routed to the available final discharge point with appropriate slope shown on the plans.

4.3 Disposal Arrangement

The final disposal chamber shall connect to the main municipal chamber available on site.

4.4 Material

As per Metro Specifications & CPWD

Internal Soil and waste piping: Cast Iron piping conforming to IS 1729

Soil and waste piping in Ducts: Cast Iron piping conforming to IS 1729

5. Rain/ Storm Water Drainage

5.1 Design parameters

The storm drainage above ground will essentially cater for the seasonal rains. The major part of discharge will be from the roof. The flat roof will have a general slope of 1 in 200 in the screed towards the rain water outlet provided on the roof. The rainfall intensity considered for the design is 55mm per hour.

The diameter for the rain water pipes derived is as follows:

Minimum downtake diameter: 160mm
Minimum Ext. Pipe Dia.: 160mm
Maximum Ext. Pipe Dia.: 315mm

5.2 Basement Drainage

Since there are two basement levels, storm water pumping shall be required. Rain water entering into the basement levels through ramps or by sprinkler burst shall be facilitated by provision of channel drain of sufficient depth and with gratings, discharging into the storm water pumps. The catchment area ofBasement-01 shall be drained through cast iron parking drains and routed to the dewatering sump at the Basement-02 level. The storm water of the Basement-01 & Basement-02 level collected in the dewatering sump shall be pumped by dewatering pump sets by auto level switches; the pumped line shall be connected to the nearest chamber on ground floor. Please refer location of sumps and channels for further details.

5.3 Infrastructure works

The rain water down takes shall connect to the nearest catch basin constructed underground on the ground floor level. Catchment basins shall be provided on ground floor as shown on plans to cater for the surface water drainage. The chamber shall be inter-connected to each other as depicted on the plans and shall connect to the nearest rain water harvesting pit constructed. The pumped storm water from the dewatering sump from the 2nd basement level shall also connect to the nearest storm chamber at ground level.

5.4 Disposal Arrangement

The storm water chambers shall be connected to each other with appropriate slope as detailed on plans. The final chamber shall connect to the rain water harvesting pit to be constructed underground for ground water recharging. The overflow of the rain water harvesting pit shall then connect to the storm line/ discharge on the road as applicable on site.

5.5 Material

As per Metro Specifications & CPWD

Vertical Rain water pipes: Cast iron pipe

Underground Rain/Storm water piping: NP2 class R.C.C pipes.

Basement storm water piping: Cast iron

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ELECTRICAL DESIGN CRITERIA

- **SYSTEM VOLTAGE :**

The system incoming supply voltage is HT 11 KV 3 phase and LT distribution supply is 433 Volts 3 phase 4 wire system.

LOAD CALCULATION :

As per the drawing of -2 to 8 level, and the services at each floor, Air conditioning, IT, Elevators, various Water Pumps, etc. Load calculations are as under.

1.	Lighting Load	-	320 KW
2.	Power Load	-	178 KW
3.	Air Conditioning	-	878 KW
4.	Elevators	-	44 KW
5.	Escalator	-	20 KW
6.	STP	-	15 KW
7.	Water Pumps	-	7.5 KW
	Total Connected Load		**1462.5 KW**

Diversity Factor - 0.75 = 1097 KW

Power Factor - 0.99

Maximum Demand - 1108 KVA

11KV SUPPLY & TRANSFORMER

Connected Load - 1462.5 KW

Maximum Demand - 1108 KVA

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Proposed Transformer capacity will be 1 nos. x 1600 KVA as Transformer efficiency 97 % & Loading of Transformer 85 % maximum.

HT BREAKAR / SWITCH

The total connected load is 1462.5 KW, hence HT Breaker of 11 KV Level is proposed as per IS Specification.

The rating of the panel will be 11 KV, 400A, Indoor Type breaker configuration will be One incoming & One Out going Breakers.

If Electrical Inspector permit then 11 KV load break switch can be unitlised for Transformer incoming protection.

LT MAIN BREAKER SHORT CIRCUIT CALCULATION

ISC = In x 100 / Z

ISC : Short Circuit Current

In : Rated Current of Transformer

Z : Impedance of Transformer = 5 %

In = 1600 x 1000 / 1.732 x V

In = 1600 x 1000 / 1.732 x 433 = 2133 Amp.

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Hence = ISC = 2133 x 100 / 5% = 20 KA

So the Breakers capacity Recommended = 35 KA for full load current

2500 Amp. ACB is required for 1600 KVA Transformer having SC rating of 50 KA.

- **CAPACITOR**

Capacitor in KVAR for Transformer of 1nos. x 1600 KVA rating

From 315 KVA to 1600 KVA @ 8 % of KVA as per L & T charts.

For 1nos. x 1600 KVA Transformer capacitors required **128 KVAR**.

Total Connected Load = 1462.5 KW

Load in HP = 1950 HP

Demand Factor = 0.75

Demand Load In HP = 1462.5 HP

Inductive load = 877.5 KVA

Resistive Load = 585 KVA

For 250 HP Load – Capacitor ---------- Required 50 KVAR

For 877.5 KVA Load – Capacitor ---------- Required 877.5 x 50 / 250

= **175.5 KVAR**

For 585 HP resistive Load – Capacitor ------ Required **117 KVAR** (As Pythagoras Theory)

Total KVAR Required = 128 KVAR + 175.5 KVAR +117 KVAR = **420.5 KVAR**

The Automatic Power Factor control panel of 800 KVAR capacity is recommended to control the power factor up to 0.99.

- **LT CABLES**

LT distribution is carried out by PVC insulated Al. conductor Arm. Cables of various sizes as per current requirement & Voltage drop calculation. PVC insulated copper conductor cables are used for Lifts / MCB DB's / small size cable 6 mm and below.

- **DETAILS OF CABLE SIZES & VOLTAGE DROP**

1. From Transformer to Main LT Room

Connected load = 1462.5 KW

Max. Demand = 0.75 = 1097 KW

Max. Demand in Amp = 1689 Amp.

Length of cable = 50 Mtrs.

Size of cable = 4 nos. 400 Sq.mm.

Conductor resistance = 0.1023 Ohm / Km

Voltage drop = 1.734 x IR x Length

= 1.732 x 1689 x 0.1023 x 0.05/4

= **3.7 Volts**

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- LIGHTING DESIGN – IS – 4347 – 1967

Following Lux is considered for lighting design purpose.

AREA	Lux
1. Public Spaces with dark surroundings	20-30-50
2. Simple orientation for short temporary visit	50-75-100
3. Working spaces whre visual task are only occasionally perform	100-150-200
4. Performance of visual task of high Contrast or large size	200-300-350
5. Performance of visual task of medium Contrast or small size	500-750-1000
6. Performance of visual task of small Contrast or very small size	1000-1500-2000
7. Performance of visual task of low Contrast and very small size over a prlonged period	2000-3000-5000
8. Performance of very a prlonged and exacting visual task	5000-7500-10000
9. Performance of very special visual task of extremely low contrast and small size	10000-15000-20000

Above Lux Level were observed while calculating Luminaries to be installed in above areas.

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Corridor Light – Important area serve more important function and act as Transitional area between wards & service room. In single corridor electrical layout is two sides of corridor.

Source – LED Lamps

Fan – Fan are provided for better circulation of air conditioning when at maximum running level. In winter fan will be sufficient in certain Areas in place of air conditioning.

- POINT WIRING

1. All wiring will be carried out in PVC Insulated copper conductor shielded wire of FR type (Flame retardant) Point wiring is carried out by 2 x 1.5 Sq.mm. Copper wire in MS/ PVC conduit operated by individual switch. The circuit wiring for lighting is carried out by 2 x 2.5 Sq.mm PVC insulated copper wire (Max. Load in each lighting circuits 500 Watts / 6 to 8 Light Point)

2. Power points will be provided by 2Cx 2.5 Sq.mm. copper wire & 1 wire of 2.5 Sq.mm. size is provided for earthing of 3rd pin .

3. All 1 T / 1.5 T AC circuits will be provided with 2 C x 4 Sq.mm copper wire (P+N) 1 wire of 2.5 Sq.mm. size is provided for earthing (E)

4. All Light / Power circuits are provided with 6 Amp. MCB for protection in MCB distribution board.

5. 16 Amp. S/S are provided with 16 Amp. MCB
   1 T / 1.5 T Ac are provided with 25 Amp MCB

7. Lifts are provided 63 Amp. MCB & 16 Amp. DP switch as per lift manufacture recommendation with 4 C x 10 Sq.mm. & 2 C x 2.5 Sq.mm. copper cable with Main board at each landings.

8. Water Pump Panel with 63 Amp. MCB, Starters & SPP are

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provided to start / stop as well protection from single phasing.

- **EARTHINGS – IS SPECIFICATION – 3043 -1987**

To provide as nearly possible a surface under and around a station which will be at a uniform potential and as near as zero or absolute earthing potential as possible.

Earthing (Plate Type)	No.	Conductor Size
1. Transformer Neutral	2 Nos.	Copp. 50 x 5 Sq.mm.
2. Transformer body	2 Nos.	GI 50 x 5 Sq.mm
3. HT Breakar / switch	2 Nos.	GI 50 x 5 Sq.mm
4. LT Panel	2 Nos.	GI 50 x 5 Sq.mm
5. APFC Panel	2 Nos.	GI 40 x 5 Sq.mm
6. Generator Neutral	2 Nos.	Copp. 40 x 5 Sq.mm.
Body	2 Nos.	GI 50 x 5 Sq.mm.

LT PANEL

Lighting , Power Panel, Commercial Panel, etc. – 2 Nos each

AC Panels – 2 Nos. each

Earth bus of 50 x 5 will formed at ground level & each floor two earth bus of 50 x 5 will run vertically at 4th floor tapping will be taken from earth bus at each floor to give earthing of 25 x 5 Sq.mm to each floor panels. From each Floor panel 8 SWG GI / Aluminum conductor is provided up to MCB Light / Power DB is provided below floor finish level and it will be connected to separate copper plate (600 x 600 x 3 mm) earthing pit at ground level with copper conductor of size 25mm x 5 mm copper Flat.

Earth Resistance will be maintained below 1 Ohm.

- **LIGHTNING ARRESTOR**

Lightning arrestor consist of copper rod / Ball with 5 spikes are provided at suitable location(Height Point) so as to cover maximum area of building & earth grid of 25 mm x 5 mm GI flat is running on periphery of the building & connected to down conductor of 25 mm x 5 mm GI flat & earth pit GI Plate of 600 x 600 x 6 Sq.mm. (4 Nos.)

- **TELEPHONE SYSTEM / COMPUTER POINTS.**

Telephone Points are provided in each consulting chamber ICCU / Ward / OT Area at suitable location and are connected to main electronic digital EPABX near reception area. Waiting is done through 2 pair x 0.5 Sq.mm. Telephone Cable with suitable Junction Boxes with crone connection at each floor. Computer points 3 Nos. x 5 Amp. switch are provided in each consulting chamber / Reception / Office area / Record area etc.

- **Emergency Supply.**

Emergency supply is calculated for Emergency lights in the corridor, Escalator, Elevator, Water pumps, Fire Fighting etc. 1 nos. of DG of 380KVA capacity is proposed to cater the emergency load of the Metro Mall.

Fire-Fighting Work: The Scope shall be as per NBC 2016 and local CFO requirements.

1. Hydrant System :-
    - Consider G.I. pipes for down-comer system. Size should be maintain 100NB as per NBC Norms.
    - Hydrant valve, Hose Reel drum, Hose box and RRL pipes of 30mtr. length should be install in each floor.
    - Hydrant Valve should install as per the dimensions mentioned below;
      Hydrant valve = 1200mm

      Hose Reel drum = 1500mm

      Hose box and REEL pipes = 900mm.

    - Hydrant system down commer is connected with terrace tank with Booster pump 900LPM.
    - Hydrant System operating 25000ltr water storage RCC tank requires at terrace level.
    - All hydrant system requires valves(NRV, butterfly, y Steiner and Air release valve).
2. Sprinkler System :-
    - Sprinkler System install at shop area.
    - This system requires G.I. pipes as per mentioned sizes 25NB to 100 NB.

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- Sprinkler System grid should be of 2.5mtr to 3 mtr for each sprinkler.
- Use drain valve for removing of water and also for maintenance of system.
- Use sprinkler system 68'c operating for all places as per shops norms.

3. Fire Alarm System :-
   - Panel – panel is used to connect all alarm system devices like Manual call point and Holder.
   - MCP – Manual Call Point use at emergency point and should be install at emergency stair case.
   - Hooter – This device should be install at each floor's emergency staircase or passage for at least people to use at emergency time.
4. Fire Door :-
   - All fire doors are use at emergency staircase and fire rated 2hrs Resistance door.
   - Fire doors size use as per Standard 1000mm width 2100mm height mentioned as per NBC Norms.
5. Fire Extinguisher:-
   Fire Extinguisher use as per NBC Norms.

CO_2, ABC extinguisher use as per area like 650 feet distance each extinguisher.

SPECIFICATIONS

EARTH - WORK

1.0 GENERAL

1.1 Standards

Work shall be carried out to Indian Standards and Code of Practices. In absence, International Standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies/conflict noticed shall be directed to the PM for his direction/approval. However as a general rule more stringent specification shall take precedence.

(1)	IS 1498	Classification and identification of soils for general engineering purpose
(2)	IS 2720	Method of test of soil
(3)	IS 3764	Safety code for excavation work
(4)	IS 4081	Safety code for blasting and related drilling operation
(5)	IS 6313 Part 1	Code of practice for anti-termite measures in buildings : constructional measures
	Part 2	Code of practice for anti-termite measures in buildings : Pre constructional chemical treatment measures
(6)		Explosive Rules 1940

2.0 SITE CLEARANCE

2.1 Prior to the start of any activity of earth-work, the area under construction shall be cleared of shrubs, vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 metre above ground level. All rubbish must be removed and stacked at a distance of 50 m outside the periphery of the area under clearance or location as decided by the PM.

2.2 The rate of such clearance is to be included in the rate of other earth-work items and no separate rate shall be paid.

3.0 SETTING OUT

3.1 The contractor shall prepare detailed setting out drawings based on the layout of Architectural drawings and those shall be submitted to the PM prior to commencement of work. Bench Marks and Reference Lines shall be established, by the contractor with approval of the PM.

3.2 The contractor shall do the setting out with the use of theodolite and like instruments at site, based on details given to him. He shall erect timber profiles, masonry pillars, burjis, etc. for his use. All markings on these shall be painted with red colour and they shall be maintained for the entire duration of the project. Setting out shall be approved by the PM before the commencement of any work.

3.3 The rate for the earth-work items shall include expenses for all such work including labour, material and equipment/instruments, etc. No additional payment shall be eligible on this account.

4.0 EXCAVATION IN SOILS

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4.1 Excavation over area

Excavation exceeding 1 m in width as well as 10 sq m in plan and 30 cm in depth shall be considered as excavation over area.

4.2 Surface dressing

Trimming of natural ground, excavated surfaces, and filled up areas to remove vegetation and/or small inequalities not exceeding 15 cm in depth shall be described as surface dressing.

4.3 Rough excavation

Excavation not requiring dressing of sides and bottom and reduction to exact levels, such as winning earth from borrow pits, hill side cuttings, etc. shall be described as rough excavation.

4.4 Surface excavation

Excavation exceeding 1 m in width as well as 10 sq m on plan but not exceeding 30 cm in depth shall be considered as surface excavation.

4.5 Trenches for pipes/cables

It shall be detailed with nominal dia of pipe/cable. Required bottom width, allowance for concrete foundation for laying pipes, working area, grip required for socketed pipe, return fill, ramming and removal of surplus soil shall be part of this item unless otherwise specified. It shall generally be measured in cubic metres unless specified specifically as running meter in the BOQ.

4.6 Post holes

Independent post holes (or similar holes) each not exceeding 0.5 cu m shall generally be enumerated. Rate shall include return fill, ramming and removal of surplus soil. However this shall be in cubic meters as part of excavation items.

4.7 General

4.7.1 The excavated earth shall be thrown or disposed off beyond 50 m periphery of the building. Earth suitable for backfilling shall be stacked separately.

Subsequent disposal of the surplus and unsuitable material shall be as per the respective items. Foundations, trenches shall be dug out to the exact dimensions as shown in the drawings or as directed by the PM.

4.7.2 In firm soil, the sides of the trench shall be kept vertical upto a depth of 2 m. If the trench is to be deeper, it shall be in the form of steps of 50 cm, at every 2 m depth. This shall be suitably increased or decreased as per site conditions and type of soil met with. This shall be to the approval of the PM. Sloping of sides also may be adopted.

4.7.3 The bed of trenches shall be firmly consolidated and leveled by watering and ramming of the soft soil. Defective spots shall be dug out and filled with concrete of the same mix as of PCC or as directed by the PM. Cost of digging and filling with concrete shall be paid extra if excavation and PCC is measured separately.

If excavation is done to a depth greater than that required, excess depth shall be back filled with the same mix as of PCC or as directed. Cost of such concrete shall be to the contractor's account.

4.7.4 Excavated trenches shall have to be approved by the PM prior to laying of PCC or any other Permanent Work.

4.7.5 Excavation for drains shall be carried out with extra care to cut the sides and bottom exactly to the required shape, slope and gradient. Filling for excess deeper excavation shall be done at the contractor's cost in consultation with the PM.

4.7.6 Excavated materials shall not be placed within 1 m of the edge of the trench or half the depth of the trench, whichever is more.

4.7.7 Excavations for column footings shall be carried to depths indicated in the drawings. Safe bearing capacity at such depth shall be verified to comply design requirements. If ordered by the PM, appropriate tests shall be carried out by the contractor.

4.8 Protection

4.8.1 Fencing and/or other suitable measures for protection against risk of accidents due to open excavation shall be provided by the contractor at his cost.

4.8.2 Where excavation is to be carried out below the foundation level of an adjacent structure, and to avoid underpinning, precautions such as shoring and strutting, etc. must be taken. No excavation should start till such measures are taken to the satisfaction of the PM. Payments for such work shall not be made separately unless specified otherwise.

5.0 EXCAVATION IN SOFT ROCK

5.1 This shall be carried out by crowbars, pickaxes or pneumatic drills or any other suitable means. Blasting may be permitted if the contractor so desires but no extra money shall be paid for blasting.

5.2 Other general details same as clause 4.7 and its sub clauses.

6.0 EXCAVATION IN HARD ROCK

6.1 General

6.1.1 On meeting hard rock that requires blasting, the contractor shall inform the PM. On approval in writing, blasting operation shall start if the contractor feels it necessary and so desires.

6.1.2 The contractor shall obtain the necessary license from the District Authorities for undertaking blasting work and explosive storing as per Explosives Rules 1940, and as updated. Explosives shall only be procured from an authorized dealer. He shall be responsible for the safe custody and proper accounting of explosives. The PM shall have access to the store.

6.1.3 The contractor shall be responsible for any accident to those working on the site, to the public or to property due to blasting operations.

6.2 Precautions

6.2.1 Safety measures to be adhered to shall be as detailed in IS 4081, Safety Code of Blasting (as amended from time to time, and to related drilling operations). Also digest No.37 of C.R.R.I and I.R.C.A. Road tariff No.18 shall be adhered to.

6.2.2 Blasting operation shall be carried out under the supervision of a responsible authorized agent of the contractor. Timings shall be as approved by the PM in writing. Lunch break will be preferred. The authorized agent of the contractor should be well conversant with the rules and regulations of blasting operations. Further the contractor shall employ licensed blasters for actual operation.

6.2.3 All proper precautions for safety shall be taken. All persons shall be moved away to a distance not less than 200 m. All entries shall be sealed and red flags displayed at prominent places.

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6.2.4 Blasting shall be done only with gunpowder. Dynamite, gelignite, or any other high explosive shall be used only with written permission of the PM.

6.2.5 The number of charges to be fired and the actual number of shots heard shall be counted and the contractor's agent shall satisfy himself by examining that all charges have exploded. Only then shall workmen be allowed to start work. Unexploded charges shall be flooded with water, a new hole drilled and exploded again.

6.2.6 The PM shall be informed about all misfires, their causes and the remedial steps taken.

7.0 CLASSIFICATION

7.1 All soils comprising any of the following:

(a) Vegetable or organic soil, turf, sand, silt, loam, clay, mud, peat, black cotton soil, soft shale or loose murrum.

(b) Any mixture of soils in (a).

(c) Mud concrete below ground level.

(d) Generally any material which yields to the ordinary application of a pickax and shovel or to phawra, rake or other ordinary digging implement and not affording resistance to digging greater than mentioned in (a) to (c).

(e) Stiff heavy clay, hard shale, or compacted murrum requiring close application of a grafting tool or pick or both and shovel.

(f) Gravel and cobblestone (cobblestone is a rock fragment), usually rounded, having maximum dia in one direction of 75-300 mm.

7.2 Soft rock comprising any of the following

(a) Soling of roads, paths, etc. and hard core.

(b) Macadam surfaces of any description (water bound, grouted, tarmac, etc.)

(c) Lime concrete, stone masonry, in lime mortar and brick work in lime or cement mortar, below ground level.

(d) Soft conglomerate, where the stones may be detached from the matrix with picks, crow bars, wedges, etc.

(e) Limestone, sandstone, laterite, hard conglomerate or other soft or disintegrated rock which may be quarried or split with a crowbar.

(f) Unreinforced cement concrete which may be broken up with crowbars or pickaxes and stone masonry in cement mortar, below ground level.

(g) Boulders not requiring blasting, rock fragments usually rounded by weathering, disintegration and exfoliation or abrasion by water or ice, having maximum dia length in any direction of 500 mm, found loose, embedded, etc.

(h) Other varieties of rock which would normally be removed with pick, crowbars, wedges and hammer with only a little difficulty.

7.3 Hard rock comprising any of the following

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(a) Any rock or cement concrete in excavation for which the use of mechanical equipment or blasting is required.

(b) Reinforced cement concrete.

(c) Boulders bigger than 1/2 cubic meter requiring blasting.

(d) Hard rock as in (a) to (c) requiring blasting but prohibited from doing so for any reason and excavation has to be carried out by chiseling, wedging or any other agreed method.

8.0 DEWATERING

Bailing or pumping out of water that may have accumulated due to rains, subsoil seepage, tidal waves, or any other means shall be carried on continuously and the area shall be kept dry for the following operations:

(a) Measurements

(b) Concreting or masonry work

(c) Shuttering and reinforcement

(d) Backfilling

(e) Line out

(f) Any other reason deemed fit by the PM

9.0 PLANKING AND STRUTTING

In case of deep trenches where the soil is soft and not capable of being retained without the help of support, planking and strutting as required shall be carried out. It shall be the responsibility of the contractor to take steps to prevent slide/collapse. Method of planking/strutting will be largely influenced by the type of soil encountered and as approved by the PM.

10.0 DISPOSAL OF SURPLUS EARTH

10.1 Surplus earth shall be used to the maximum extent in the compound. Earth useful for filling shall be separately stacked as directed by the PM from time to time. Approved quality earth shall be used in the filling. It shall be consolidated as detailed and approved by the PM.

10.2 Rate for excavation shall include sorting out of useful materials.

10.3 All surplus and unusable earth shall be disposed off outside the campus but at a location approved by local authority and conforming to their specification. The contractor shall quote his rate for disposing off or carting away the items considering requirements and standards of the local authority with whose permission surplus and unusable earth shall have to be disposed off.

11.0 FILLING

11.1 Filling shall be done where required with approved quality of earth. It may be from excavation and, where possible, cutting and filling shall be done simultaneously to avoid double handling.

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11.2 Filling shall be done in layers not exceeding 15 cm in depth. Earth used shall be free from roots, grass and rubbish and all lumps and clods exceeding 8 cm in any direction shall be broken down. Each layer shall be watered with optimum moisture content to achieve 95% Procter density. Consolidation shall be done by mechanical roller of minimum 12 tons weight. The roller shall pass a minimum of 10 runs evenly to achieve dense consolidation. All undulation made up and final layer re-rolled.

Measurement shall be for compacted volume in Cubic Meter.

11.3 Sand filling

The sand shall be free from any organic and deleterious materials as detailed in IS. It should be suitable for compaction. Filling shall be in layers of 15 to 20 cm watered with optimum moisture content and mechanical rammers.

Measurement shall be for compacted volume in Cubic Meter.

11.4 Rubble soling

Good quality 150 mm to 230 mm thick rubble soling shall be carried out depending upon the grade of soil. Rubble used shall be at least 100 mm for 150 mm thick soling and 150 mm for 230 mm thick soling. Stone shall be hand packed as close as possible and bedded firmly with the broadest face downwards and the greatest length across, voids filled with chips and small stones. These shall be hammered down to achieve packing and the complete filling of interstices. To achieve the desired levels and slopes, pegs at suitable intervals (about 12 m) shall be fixed.

Soling shall be watered and again packed with sand or murrum to fill interstices created by watering. Then it shall be rolled with 10 ton roller or vibratory compactor. Filling sand or murrum, watering and rolling shall continue till full compactness is achieved to satisfaction of the Architect.

Measurement shall be in Square Meter.

11.0 MEASUREMENT

11.1 The measurement shall be generally conforming to IS: 1200, Part-I unless otherwise specified. Measurement for excavation of foundations and footing shall be as required for the exact width, length and depth as shown of figured on the drawings or as may be directed by the PM. If taken out to a greater width, length or depth than shown or required, the extra work occasioned thereby shall be done at the Contractor's expenses.

The dimensions of the trenches and pits shall be measured correct to the nearest cm. and cubical contents worked out in cubic meters, correct to two places of decimal.

Measurements of filling excavated earth or sand in plinth or under floors: depth of consolidated earth fillings shall be measured for the purpose of payments. The dimensions of the fillings shall be measured correct to the nearest cm. and cubical contents worked out in cubic meters correct to the two places of decimal.

Item to include the following:

a) Excavation and disposing of all excavated materials as specified.

b) Setting out works, profiles etc.

c) Site clearance such as cleaning of rank vegetation, shrubs, brushwood.

d) Forming (or leaving)" dead mean" or "tell tales" and their removals after measurement

e) Bailing out water in excavation from rains, sub-soil water, any water coming inside the place of work irrespective of its source if not specified separately.

f) Doing shoring / planking / strutting etc. as required to support excavation sides with required supporting arrangements.

g) Temporarily supporting of existing services of pipes, water mains, cables etc. met within the course of excavation if not specified separately. Care shall be taken not to disturb electric and communication cables. Removal of such cables, if necessary, shall be arranged by the PM.

h) Forming (or leaving) steps in sides of deep trenches and their removal.

i) Removing slips or falls in excavation.

j) Fencing and/or other suitable measures for protection against risk of accidents as approved by the PM.

k) Excavation for insertion of planking and strutting where required, and

l) Backfilling the trenches foundations (sides of footings) with selected excavated materials.

m) Stacking of any executed materials which are not to be disposed-off as per instructions of the PM.

n) Carting away all surplus excavated material outside the plot area including loading, transportation, unloading etc. complete. (volume will be measured on compacted basis, on the basis of approved excavation quantities and filling quantities. Allowance for voids shall be included in quoted rates only.) Contractor should locate suitable area for dumping the material at his own cost.

12.0 ANTI-TERMITE TREATMENT

12.1 Indian Standards

Indian Standards to be followed are

1) IS 4015 (Part-I & II) - Guide for handling cases of pesticide poisoning.

2) IS 6313 (Part-I) - Code of practice for Anti- termite measures in buildings constructional measures

3) IS 6313 (Part - II) - Code of practice for anti-termite measures in Building (pre-constructional chemical treatment)

4) IS 8944 - Specification for Chloropyrifos Emulsified concentrates.

12.2 Materials

One of the following chemicals in water emulsion shall be used

12.2.1 For mound treatment

	Chemical	Relevant Indian Standard	Concentration By Volume
a.	Cholopyrifos emulsifiable concentrate	IS : 8944	1.0%
b.	Lindane	IS : 632	1.0%

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12.2.2 For soil treatment

	Chemical	Relevant Indian Standard	Concentration By Volume
a.	Cholopyrifos emulsifiable concentrate	IS : 8944	1.0%
b.	Heptachlor emulsifiable concentrate	IS : 6436	0.5%
c.	Chlordane emulsifiable concentrate	IS : 2682	1.0%

12.3.0 Workmanship

12.3.1 Conditions of formation

Barrier shall be complete and continuous under the whole of the structure to be protected. All foundation shall be fully surrounded by and in close contact with the barrier of treated soil. Each part of the area treated shall receive the prescribed dosage of chemical.

12.3.2 Time of application

Soil treatment should start when foundation trenches and pits are ready to take mass concrete in foundations. Laying of mass concrete should start when the chemical emulsion has been absorbed by the soil and the surface is quite dry. Treatment should not be carried out when it is raining or when the soil is wet with rain or sub-soil water. The foregoing applies also in the case of treatment to the filled earth surface within the plinth area before laying the sub-grade for the floor.

12.3.3 Disturbance

Once formed, treated soil barriers shall not be disturbed. If, by chance, treated soil barriers are disturbed, immediate steps shall be taken to restore the continuity and completeness of the barriers- system.

12.4.0 Termite mound treatment

If termite mounds are found within the plinth area, these shall be destroyed by pouring into the mounds at several places, after breaking open the earthen structure, and making holes with crow- bars, at the rate of approximately 4 litres of emulsion per cubic meter of mound.

12.5.0 Soil Treatment

12.5.1 Treatment of column pits foundation, trenches and basement excavations:

The bottom surface and the sides (upto a height of 300 mm above concrete foundation level) of the excavations made for column pits, wall trenches and basements shall be treated with the chemical at the rate of 5 litres per sq m. of surface area. After the column foundation and retaining walls of the basement come up, the back fill in immediate contact with the foundation structure shall be treated at the rate of 15 litres per sq m. of the vertical surface of the sub-structure for each side. If water is used for ramming the earth fill the chemical treatment shall be carried out after ramming operation is done by rodding the earth at 150 mm centers close to wall surface and spraying the chemical with the above dose. As earth is filled in layers the treatment shall be carried out in similar stages. The chemical emulsion shall be directed towards the concrete or masonry surfaces of the columns and walls so that earth in contact with these surfaces is well treated with the chemicals. In the case of RCC framed structure with columns and plinth beams and

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RCC basements, the treatment shall start at the depth of 500 mm below ground level. From this depth the back fill around the columns beams and RCC basement wall shall be treated at the rate of 15 liters per sq m. of vertical surface. The other details of treatment shall be as described below:

12.5.2 Treatment to top surface of plinth filling:

a) After the earth filling is completed in the plinth area and before the rubble packing or subgrade is laid, the entire surface of the filled earth shall be treated with the chemical emulsion at the rate of 5 litres per sq m. Light rodding may be carried out in the soil surface to facilitate absorption saturation of the soil with chemical emulsion.

b) For buildings where construction has advanced already for facility of construction, the treatment could also be done effectively, over the base concrete (lean mix) under the floor taking care that the emulsion, at the rate of 5 litres per sq m. soak fully into the concrete.

c) The above application effectively prevents entry of termites through the floor structure.

12.5.3 Treatment of soil along external perimeter:

Finally the earth around the external perimeter of the building upto a depth of 30 cm shall be treated at the rate of 5.0 litres per running meter of the external wall. To facilitate this treatment solid MS rods should be driven into the soil as close possible to the plinth wall at intervals of 15 cm, and upto a depth of 30 cm, and the rods moved backwards and forwards in a direction parallel to the wall to break up the earth so that the emulsion mixes intimately with the soil.

12.5.4 Treatment of soil surrounding pipes, wastes and conduits:

When pipes, wastes and conduits enter the soil inside the area of the foundation, the soil surrounding the points of entry shall be loosened around each such pipe, waste or conduits for a distance of 15 cm, and upto a depth of 7.5 cm before the treatment is commenced. When they enter the soil external to the foundations, they shall be similarly treated unless they stand clear of the walls of the building by about 7.5 cm for a distance over 30 cm.

12.5.5 Treatment for expansion joints

Expansion joints at ground floor level are one of the biggest hazards for termite infestation. The soil beneath these joints should receive special attention when the treatment under para 12.5.4 is carried out. This treatment should be supplemented by treating through the expansion joint after the sub-grade has been laid at the rate of 2 litres per linear meter.

12.6.0 Spraying Equipment

A pressure pump shall be used to carry out spraying operations to facilitate uniform spraying and penetration of chemical into the earth. The chemicals, concentration and dosage for horizontal and vertical surfaces are based on the IS code of practice for Anti- termite measures in Buildings. IS 6313 (Part-II).

12.7.0 Safety

Work shall be carried out as per safety measures instructions of manufacturer of approved pesticide & direction of Architect. Also IS 4015 part I and II shall be followed.

12.8.0 Measurement

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Measurement for payment incase of preconstruction treatment as detailed above shall be for actual carpet area covered by building at ground level in plan in sqm.

12.9.0 Free Service Guarantee

The contractor shall note that termite proofing work, is subject to a free service guarantee from the date of completion of the treatment. The contractor shall give an undertaking in writing to the effect that during the guarantee period any infestation of subterranean termites will be eradicated, and necessary treatment carried out to prevent re-infestation, free of cost to the employer. The guarantee shall allow a minimum period of - 10 (ten) years for pre-constructional treatment.

Tenderers must ensure that the work will be done through the professional Pest Control operator. They should be members of National Pest Control Association of USA, or Indian Pest Control Association or any other recognised professional body. They should furnish a list of Termite Control jobs carried out by them successfully for Government Department, Statutory bodies or large private organisations to prove that they are capable of handling anti termite work.

* * * * *

SECTION – 1/A

CONCRETE WORK

1.0 GENERAL

1.1 Standard

Work shall be carried out to Indian Standards and Code of Practices. In absence International Standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies / conflict noticed shall be directed to the PM for his direction/approval. However as a general rule more stringent specification shall take precedence.

(1)	IS 269		Specification for Ordinary and low heat, portland cement
(2)	IS 8112		Specification for 43 grade ordinary portland cement
(3)	IS 12269		Specification for 53 grade ordinary portland cement
(4)	IS 383		Specification for Coarse and fine aggregates from natural sources for concrete
(5)	IS 456		Code of practice for plain and reinforced concrete
(6)	IS 460		Specification for test sieves (Part I,II & III)
		i)	Wire cloth test sieve
		ii)	Perforated plate test sieve
		iii)	Method of examination of test sieves
(7)	IS 515		Specification for natural and manufactured aggregates from natural sources for concrete.
(8)	IS 516		Method of test for strength of concrete
(9)	IS 875 (Part I, II, III)		Design loads for building structure.
(10)	IS 1199		Method of Sampling and analysis of concrete
(11)	IS 1791		Batch type concrete mixers
(12)	IS 1893		Earthquake resistant design.
(13)	IS 2386		Method of test for aggregate for concrete (Part I, II & III)
	i)		Particle size and shape
	ii)		Estimation of deleterious materials and organic impurities
	iii)		Specific gravity, density, voids, absorption and bulking.

(14)	IS 2505	General requirements for concrete vibrators
(15)	IS 2645	Specification for Integral cement waterproofing compound
(16)	IS 3025	Methods of Sampling and test (Physical and Chemical for water)
(17)	IS 4326	Code of practice for earthquake resistant design and construction of building.
(18)	IS 4926	Specification for ready mixed concrete
(19)	IS 7861	Code of practice for extreme weather concreting
	i)	Recommended practice for hot weather concreting
	ii)	Recommended practice for cold weather concreting
(20)	IS 9103	Specifications for admixture for concrete
(21)	IS 12118	(Part I) Specification for two parts polysulphide based sealant : general requirements
(22)	SP 23	Handbook on concrete mix
(23)	SP 24	Explanatory handbook on Indian Standards code for plain and reinforced concrete (IS 456)
(24)	SP 27	Handbook of method of measurement of building works
(25)	IS 1489	Specification for Portland pozzolana cement
(26)	IS 2430	Methods for sampling of aggregates for concrete
(27)	IS 3812	Specification for fly ash use as Pozzolana and admixtures

1.2 Quality Assurance

1.2.1 Concrete used on site shall comply to relevant parts of Standards, Codes of practices, technical specification given in particular or approved, designed mixes as prepared, approved and adopted for works to give designed strength, serviceability, long term durability etc.

1.2.2 Provide and monitor quality control over materials received from suppliers / manufacturers to ensure that materials comply with standard specified and are as approved.

1.2.3 Provide experienced supervision and work force to ensure that workmanship is of specified quality.

1.2.4 Work shall not be subjected to harmful, dangerous, damaging or deleterious exposures while it is in progress or on completion during contract period.

1.2.5 Contractor to under take quality assurance by documenting.

- Test report for material used in producing concrete.
- Mix design details with laboratory test report, actual site trial mix test and accepted modified design if any
- Pour cards with approval of the PM prior to placement
- Control charts
- Non-conformance reports, changes, orders etc.

1.3 Submittals

1.3.1 Submit samples of all materials such as cement, sand, aggregate, admixtures, water etc to be incorporated into concrete along with test certificates from recognised laboratories for the PM approval.

1.3.2 Samples

During construction, the materials shall be sampled and tested as often as directed by the PM to the contractor. Samples shall be taken and tested in accordance with latest revisions of Indian standard specifications and the cost thereof shall be borne by the Contractor.

1.3.3 Shop Drawings

Contractor shall prepare and submit method made of casting of slabs, beams with details of construction and expansion joint for approval of the PM.

1.4.0 Examination of conditions

Contractor shall inspect and examine sub stratas and confirm prior to start that.

- Substrate is acceptable and approved by PM
- Conditions are satisfactory
- Setting out/Layout is verified
- Corrective measures needed if any are within reach and contractor proceeds with full responsibility for work.

2.0 MATERIALS

2.1 Cement

Cement shall be ordinary Portland cement conforming to IS and shall be of grade 53/43 for structural use or as specified in drawing.

Portland Pozzolana (flay ash or Blast furnace slag blended conforming to to IS) shall be permitted.

It shall be received in bags of 50 kg or loose in tankers and each batch shall be accompanied with a test certificate of the factory. Also it shall be tested before use to ascertain its strength, setting time, etc. In case cement has been stored for over 3 months or for any reasons the stored cement

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shows signs of deterioration or contamination, it shall be tested as per the direction of the PM prior to use in the works.

2.2 Coarse aggregate

2.2.1 Coarse aggregate shall be obtained from natural sources such as stone, gravel, etc crushed or uncrushed or a combination thereof from approved quarries. Aggregate shall be hard, strong, dense, durable, clean and free from veins and adherent coatings. It shall be free from soft, feeble, thin, elongated or laminated pieces and shall be roughly cubical in shape. It shall consist of coarse material, most of which is retained on 4.75 mm IS sieve and contains only as much fine material as is permitted in IS 383 for various sizes and grading.

2.2.2 Coarse aggregate shall not contain any harmful material such as iron, pyrites, coal, mica, shale or similar laminated material; neither shall it contain clay, alkali, soft fragments, sea shells, organic impurities, etc. in such quantities that adversely affects the strength and durability of the concrete. In addition to the above, in reinforced concrete the aggregate shall not contain any material which might attack the reinforcement. The maximum quantities of deleterious materials in the coarse aggregate, when determined in accordance with IS 2386 Part I and Part II "Method of test for aggregates for concrete" shall not exceed the limits laid down in IS 383.

2.2.3 Aggregate crushing value, impact value, abrasion value and soundness of aggregate shall respectively be in accordance with IS 383.

2.2.4 Grading of coarse aggregate shall be in conformity with the requirements laid down in IS 383.

The grading of coarse aggregate shall be such that not more than 5% shall be larger than the maximum size and not more than 10% shall be smaller than the smallest size. Between these sizes the coarse aggregates shall be well graded.

For heavily reinforced concrete the aggregate shall be subjected to tests in accordance with IS 2386 or and directed by the PM.

The maximum size of coarse aggregate should not be greater than one fourth of the minimum thickness of the member and it should be restricted to 5 mm less than the minimum clear distance between the main bars or 5 mm less than the minimum cover to the reinforcement.

2.2.5 Source of aggregate shall be from an approved Government location. It shall be tested prior to the approval of the PM from an approved testing laboratory. In case available aggregates do not meet certain requirements of IS 383 or any other specification, required processing shall be carried out by the contractor at his cost. No extra cost towards these processes, treatment or combination of both shall be paid. It shall be the duty of the contractor to make sure that aggregate material received by him is from Government approved quarries and with fully paid royalties, taxes, duties, etc. as may be in force from time to time for respective locations.

2.2.6 Coarse aggregate shall have a minimum specific gravity of 2.6. (Saturated surface dry basis). Aggregate below this specific gravity shall not be used without the special permission of the PM.

2.2.7 Once a specific source of supply of coarse aggregate is approved, the source shall not be changed without the prior approval of the PM.

2.3 Fine aggregate

2.3.1 Natural sand deposited by stream or glacial agencies as a result of disintegration of rock shall be used as fine aggregate. Fine aggregate shall pass through 4.75 mm sieve in total. Crushed sand may be added to natural sand in approved proportions to achieve required grading. The fine aggregate shall conform to following standards.

(i)	For plain and reinforced concrete	IS 383 Specification for coarse and fine aggregates from natural sources for concrete.
(ii)	Mortar and grout	IS 2116 Specification for sand for masonry mortars.

2.3.2 Sea sand shall not be used unless special approval by the PM in writing is given. If approved, the required treatment shall be done at the contractor's cost.

2.3.3 Sand shall be hard, durable, chemically inert, clean and free from adherent coatings and organic matter and shall not contain any appreciable amount of clay and pellets. Sand shall not contain harmful impurities such as iron, pyrites, salts, coal particles, lignite, mica shale or similar laminated material, alkali, and organic impurities in such form or quantities as to affect the strength or durability of concrete or mortar. Also it should not contain any material liable to attack the steel reinforcement.

2.3.4 When tested as per IS 2386 Part I and Part II, fine aggregate shall not exceed permissible quantities of deleterious materials as given in IS 383.

2.3.5 Fine aggregate shall be thoroughly washed at site with clean fresh water such that the percentage of all deleterious material is within the permissible limits laid down. Fine aggregate containing more than allowable percentage of silt shall be washed so as to bring the silt content within allowable limits for which nothing extra shall be paid.

2.3.6 Grading of fine aggregate shall conform to IS and shall fall within limits of one of the four zones given in IS 383.

2.3.7 Due allowance for bulking due to damp and moist sand shall be made while preparing the mixes based on volume measurements. It shall be determined as per IS 2386.

2.4 Water

2.4.1 Water used for mixing and curing shall be clean, reasonably clear and free from objectionable quantities of silt, oils, alkalies, acids, salts, sugar so as not to weaken mortar, or concrete or cause efflorescence or attack the steel in RCC while curing. It shall be free of elements, which significantly affects the hydration reaction or otherwise interferes with hardening of concrete during curing or those elements which produce objectionable stains or deposits. Potable water is generally satisfactory, but it shall be tested prior to use in the works.

2.4.2 Water tested shall be in accordance with IS 3025. Maximum permissible limits of deleterious materials in water as given in IS 456.

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2.4.3 Suitability of water shall be ascertained by the compressive strength and initial setting time test as specified under:

a) Average 28 days compressive strength of atleast three 15 cm concrete cubes prepared with water proposed to be used shall not be less than 90% of the average strength of three similar concrete cubes prepared with distilled water. Preparation and testing to be in accordance with IS 516.

b) The initial setting time of test blocks made with proposed cement and water to be used shall not be less than 30 minutes and shall not differ by ± 30 minutes from the initial setting time of control test block prepared with the same cement and distilled water. Preparation and testing of block shall be in accordance with IS 4031.

2.4.4 The PH value of water shall not be less than 6 and more than 9.

2.4.5 Water shall be tested and approved in writing by the PM prior to use in the works.

2.4.6 Sea water

Sea water in concrete shall not be permitted unless specifically approved in writing by the PM for purpose stated. The PM, under unavoidable circumstances, may allow mixing or curing by sea water in concrete construction which are permanently under sea water.

2.5 Admixture

2.5.1 These are substances other than cement, aggregate and water and shall be permitted to be used to modify the properties of concrete for single, or a combination of purposes. This shall be used only on the written approval for specific purpose and at the cost of the contractor. Good concrete shall be achieved without the aid of any admixtures.

2.5.2 Admixtures shall be free from chlorides and sulphates which might affect concrete or any other material which may cause problems to the concrete in the due course of time. Also it shall have no effect on the reinforcement in case of Reinforced Cement Concrete.

2.5.3 Admixtures generally in use are classified as under:

a) Accelerators

b) Retarders

c) Workability agents

d) Water repelling agents

e) Air-entraining agents

f) Gas-forming agents

g) Corrosion inhibitor additive

These are manufactured and sold by various companies under brand names. The contractor proposing to use any one of them shall submit to the PM technical literature with its chemical

composition, purpose of use and method recommended by the manufacturer and what he proposes to follow at site for strict control.

2.5.4 The contractor's proposal shall accompany the followings with his request to use admixture.

a) The trade name of the admixture, its source and the manufacturer's recommended method of use.

b) Typical dosage rates and the possible detrimental effects of under and over-dosage.

c) Whether the admixture contains chloride in any free form or any other chemical present as an active ingredient which is a likely cause of corrosion of reinforcement or deterioration of concrete.

d) The average expected air content of freshly mixed concrete containing an admixture which causes air to be entrained when used at the manufacturer's recommended rate of dosage.

2.5.5 The Polycarbonate based admixtures compatible with mineral admixtures, fine & course aggregates, cement, fly ash etc. shall be used for high performance concrete.

2.6 Miscellaneous

2.6.1 Integral cement water proofing compound specified for specific use shall conform to IS 2645.

2.6.2 Bituminous felts for water proofing and damp proofing course shall conform to IS 1322.

2.6.3 Bituminous compounds for water proofing purposes shall conform to IS 1580.

2.6.4 Expansion joint filler

Bituminous impregnated premoulded preformed expansion joint filler board conforming to IS 1838 part (I) specification for preformed filler boards shall be of approved quality and thickness at designated locations.

2.6.5 Polysulphide sealants

1 Expansion, construction or other joints shall be sealed with approved quality polysulphide sealants.

2 One-part gun grade polysulphide-based joint sealants shall conform to IS 11433 (Part I). It shall be used with the approval of the PM and as per the manufacturer's instructions. Correct primer shall be used at the specified location.

3 Two-part polysulphide based sealant gun grade or pouring grade shall conform to IS 12118 (part I). Pouring grade shall be used in horizontal joints. Gun grade shall be used in vertical, inclined and horizontal joints. Specified primer shall be applied prior to the use of sealant. Use of sealant shall be as per instructions of the approved manufacturer.

4 Sealant shall be cured at ambient temperature and humidity when applied as per the approved manufacturer's instruction and received in suitable packs. Each package shall indicate

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- Manufacturer's name and trade mark
- Weight of the components
- Instructions for storage
- Type and grade of sealants
- Date of manufacture and expiry
- Instructions for use

2.6.6 Water bar

PVC or rubber water bar of type, quality and width shall be used as approved by the PM. Water bar shall be continuous and fixed at the indicated locations. Water bar should be welded or joined with the approved method. All angles and corners shall be purpose-made and shall be joined with the approved method.

2.7 Delivery and Storage

2.7.1 Cement shall be received at site in bags of 50 kg as packed confirming to IS bearing the manufacturer's name or his registered trade mark, grade of cement, type of cement and each batch shall be accompanied with a test certificate of the factory. Reject damp or torn bags.

Cement shall be stored in dry and water proof shed so as to prevent deterioration due to moisture, dampness. Bags shall be stacked on rigid water-proof platforms about 15 to 20 cm clear above the floors, bags shall be stacked at least 45 cm clear or away from the surrounding walls and in rows of two bags leaving in a space of at least 60 m between two consecutive rows. A maximum high stack of 10 bags permitted. Stacks shall be so arranged that the first batches are used first, (FIFO) and that they permit easy access for inspection and handling.

Different types of cement shall be stacked and stored separately.

Loose cement received shall be stored in Silo's. Silo's shall be equipped to receive cement by pump and manually. Silo's shall be water tight and damp proof to keep cement fresh.

2.7.2 Coarse Aggregates and Fine Aggregates

Aggregate shall be stored in such a way that it does not get mixed with mud, dust, grass, vegetables and other foreign matter. The best way is to have a hard surface platform made out of concrete, bricks or planks. It should be to the approval of the PM.

2.7.3 Water

Water storage tanks shall be such as to prevent any deleterious materials getting mixed with it.

2.7.4 Covered storages

Considering the atmospheric/ weather conditions at site storages, covering shall be arranged to take care of temperature controls at site.

2.8 FLY ASH

2.8.1 It is compulsory to use fly ash in concrete for RCC and PCC.

2.8.2 Fly ash used for cement concrete shall be conforming to IS 3812. Physical and Chemical requirements of fly ash shall be confirming to IS. Moisture content of fly ash shall be as specified by the Structural Consultant / PM. Testing of fly ash shall be carried out according to IS 1727.

2.8.3 Fly ash shall be stored in such a way to permit easy access for inspection and identification of each consignment. Manufacturer or supplier of fly ash has to furnish certificate for standard of fly ash. The consignment shall also mark with the Standard Mark

3.0 CONCRETE

Concrete is prepared by mixing graded aggregate of stone or brick aggregate of nominal size as specified along with cement, in a specified proportion with required quantity of water. Mixing shall be done by a mechanical mixer. Manual hand mixing shall be permitted in specific cases with the written permission of the PM on account of small quantity or location or any other reason acceptable to the PM.

3.1 Cement concrete

This shall be classified as plain cement concrete or reinforced cement concrete. Plain cement concrete shall be in leveling course under foundations, floors, copings, etc. and shall include form work as part of the work.

Reinforced cement concrete shall be at all locations and comprises form work, reinforcement and concrete. Payment of reinforced cement concrete may be composite or item wise as specified in the BOQ. In PCC, payment for form work shall not be made.

3.1.1 Concrete shall be classified by its compressive strength at the 28th day. The concrete grades shall be as designated in IS 456.

3.1.2 Design mix

Design mix concrete is that concrete in which the design of mix i.e. the determination of proportions of cement, aggregate and water is arrived as to have target mean strength for specified grade of concrete.

BOQ shall specify various types of concrete aimed to be used in works. It shall be the responsibility of the contractor to carry out design mixes and approval of the same shall be obtained from the PM at least 35 days in advance from the actual pouring of concrete at site in the permanent works.

1. Mix design of concrete shall be done as per IS 10262 & SP 23, 24. Following basic points shall be finalised.
   - Characteristic compressive strength of concrete at 28 days and targeted compressive strength required at design stage.
   - Standard deviation factor based on site actual execution conditions.
   - Minimum cement specified by the structural consultant or as per IS for strength and durability for location where concrete is to be used.
   - Water cement ratio permitted by IS.

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- Workability to be achieved for better workmanship and good quality concrete
- Admixtures to be used if any
- Aggregates being used are tested to IS383. Include for Alkali reactivity, chloride and sulphate contents independently and combination of cement and water.
- Water being used is tested.

Further the contractor shall ensure that designed mix meet minimum cement contents as specified in BOQ/drawings and proposed revision to IS 456 along with maximum water cement ratio, to different exposure condition from durability point of view. In addition contractor shall ensure

a) Alkali - reactivity

Aggregates containing material susceptible to attack by alkali's (Na_2O and K_2O) originating from cement or other sources and producing expansive reaction shall not be used.

The aggregates source shall be initially tested for alkali reactivity prior to being used in design mix.

b) Sulphate and chlorides in concrete

Harmful salts coming from the concrete materials such as cement, aggregate, water and admixture, as well as by diffusion from environments shall be limited to following weight of cement.

- Total chlorides (as Cl) - 0.15 %
- Total soluble sulphate (as SO_3) - 4 %

3.1.2.2 Designing high performance cement concrete

Providing, transporting and laying (Pumping / lifted) at the pour location; concrete mix to confirm IS 456-2000 international standards codes, with maximum cement contain allowed by IS 456; work shall be at all depths and height but excludes cost of shuttering (Formwork) and reinforcement. Work shall include compaction with vibrators, curing, hacking the exposed faces where plaster is expected to be received, slabs / rafts top surface to be power floated (where specified) or timber bottom finished or towel finished. The concrete should be preferably with 0.32 to 0.38 water cement ratio, using mineral / chemical admixture as approved by consultants to enhance strength / workability. The PC based super plasticizers shall be used to achieve workability, consistency, retardation etc. The temperature of concrete at pour should be between 28 to 30 degree. All work shall be done with due care to achieve homogeneous dense, smooth concrete of required slump. Also designed concrete mix shall be robust to get consistent results. Grade of high performance concrete proposed are M70, M60 and M50.

3.1.3.1 Compressive strength

For expected strength of cubes tested on the 28th day, the design mix at preliminary test and work site shall be as per IS 456-2000.

3.1.3.2 Water cement ratio

The water-cement ratio shall be between 0.42 to 0.55. Additional water may be permitted only at the discretion of the Structural Engineer. The slump shall depend upon the location and type of work. Higher slump with use of plastisizers shall be permitted.

3.1.4 Trial mixes

3.1.4.1 The contractor shall submit, at least 5 weeks in advance, to the PM the mix design that he proposes to use at site. The mix design in addition to points in 3.1.2 shall also give basic details (when tested according to IS 1199 and IS 2386-Part III 1963), as per followings

a) Slump/Workability

b) Bleeding

c) Compacting factor

d) Vee-Bee time

e) Cement required for one cubic meter of concrete

f) Wet and dry density

g) Air contents if applicable

3.1.4.2 On receipt of this, the PM may immediately order to carry out work site test before the final approval. This shall be done with mixer and materials actually being used at site.

This shall give the contractor additional chance to check for himself actual workability and make sure that the mix proposed by him will be fully satisfactory with regards to slump, segregation, bleeding, water-cement ratio and workability.

6 cubes shall be taken from each of the 3 batches to test the mix. Cubes shall be cast, stored, cured, transported and tested to IS 516. The test may be carried out at site or laboratory as approved by the PM.

Trial mixes shall be approved provided that average strength of 3 consecutive cubes is not less than that specified and that one out of three may give a value less than specified but limited to a maximum of 90% of the specified strength.

3.1.4.3 In case the trial mix falls below the above criterion, the PM shall order fresh trial mixes to be made as before, until the desired strength is arrived at.

3.1.4.4 This design mix and trial mix hold good so long as the materials continue to be of the same quality and from the same sources. For any change, the PM may order fresh design mix and trial mixes to be carried out before the same is used at site.

3.1.5 Mixing of concrete

3.1.5.1 Machinery and equipments.

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a) Batching

Batching shall be done by weigh batchers conforming to IS 2722. A platform scale of capacity 300kg with fraction upto 100gms shall be at site.

For water supply to mixture through metering system shall be organised.

Design mix converted to volumetric may be permitted by PM. Accordingly suitable size of boxes equivalent to 1 bag of 50kg cement shall be prepared by the contractor.

b) Mixer

Mixers used shall conform to IS. Type Capacity shall be as per size, extent and nature of work.

c) Transportation

Wheel borrows, cranes, mini dumpers, truck, agitators, belt conveyors, pumps with piping etc. as per requirement depending upon location, size extent and nature of work shall be deployed by the contractor with prior approval of the PM.

d) Vibrators

Internal and external vibrators working on electricity, Pneumatic or petrol shall be approved by the PM. Vibrators shall conform to IS.

e) All machineries and equipments shall be maintained regularly. Periodic calibration of all machines shall be done, and records maintained in a register. As and when requested by the PM same shall be forwarded for his inspection.

3.1.5.2 At the start of mixing mixer shall be rinsed /coated by loading with cement, sand, water of the same proportion of batch to be used. Loading the mixer/charging the mixer shall be done mechanically and care to be taken that all material is fully loaded.

The mixer shall be run for a minimum period of 2 minutes after all materials are loaded in full quantity. The concrete produced shall be uniform in colour and consistency. Unless agreed by PM the first batch of concrete from mixer shall contain two-third of normal quantity of coarse aggregate.

3.1.5.3 Transportation

Concrete shall be transported to place of pour as far as possible in most efficiently, conveniently and without loss of concrete characteristic. Method of transportation shall depend upon the location, size and nature of work. Concrete should be placed within ½ hour of production i.e. prior to initial set.

Use of admixtures such as air entraining agent, retarders etc. shall be adopted and incorporated into design mix stage.

Concrete shall be kept in agitating state when ambient temperatures are high. This shall increase placing time to 1 ½ hrs after water is added.

Points to be taken care are

- Method adopted do not permit segregation
- Containers used are leak proof
- Containers are well covered during rains, heavy winds
- Concrete does not get contaminated by oil, dirt etc.

3.1.5.4 Placing

The placing temperature of concrete shall not be more than 34° C. If it is more, the PM may order addition of ice or chilled water to the concrete. Also the contractor shall take the following precautions:

a) Mixers and weigh batchers shall be painted with white colour

b) Aggregate storing bins shall not be exposed to the Sun

c) Water shall be sprinkled on aggregates well before concreting to keep the temperature low.

d) Use chilled water for mixing or add flake ice as a proportion of the mixing water.

e) Place concrete at night.

3.1.5.5 Ready mix concrete (RMC)

a) Concrete

Ready mix concrete as approved only shall be used. It shall comply all requirements of concrete. Batching plant, mixture, truck mixture, pump etc shall conform to relevant Indian standard. Daily returns shall be provided showing total volume of each class of concrete received.

b) Pumping of concrete

Stationery or mobile pumps as per requirements shall be deployed. Concrete shall be continuous to avoid any blockage within pump. Concrete mix shall be with slump as desired by pump manufacturer and most desirable at site to pump operator / supervisor.

Required piping, bends, clamps, chutes etc. shall be well organised and placed in position prior to start so continuous concrete with minor changes will keep concrete flowing at predetermined location in approved manner.

Mix design adopted shall be approved by PM and shall conform all test as detailed in specification.

Pump concrete shall flow quite fast and is placed with larger impact on formwork. Hence special precautions at design stage of formwork shall be taken and staging/scaffolds should be well restrained in all directions to withstand thrust.

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Pumping shall be done with due care and safety. Recommendation of pump suppliers shall be followed strictly.

c) Field control

Sampling at both truck discharge and point of final placement shall be employed to determine if any changes in the slump and other significant mix characteristics occur. However, for determining strength of concrete, cubes shall be taken from the placement end of line.

d) Planning

Proper planning of concrete supply, pump locations, line layout, placing sequence, and the entire pumping operation shall be made and got approved. The pump should be as near the placing area as practicable, and the entire surrounding area shall have adequate bearing strength to support concrete delivery pipes. Lines from pump to the placing area should be laid out with a minimum of bends. For large placing areas alternate lines should be installed for rapid connection when required. Standby power and pumping equipment should be provided to replace initial equipment, should breakdown occur.

The placing rate should be estimated so that concrete can be ordered at an appropriate delivery rate.

As a final check, the pump should be started and operated without concrete to be certain that all moving parts are operating properly. A grout mortar should be pumped in to the lines to provide lubrication for the concrete, but this mortar shall not be used in the placement. When the form is nearly full, and there is enough concrete in the line to complete the placement, the pump shall be stopped and a go-devil inserted and shall be forced through the line by water under pressure to clean it out. The go-devil should be stopped at a safe distance from the end of the line so that the water in the line will not spill into the placement area. At the end of placing operation, the line shall be cleaned in the reverse direction.

3.1.6 Shrinkage cracks

Concreting shall be avoided in very warm weather. If necessary, it shall be covered with damped hessian within 2 hours of placing of concrete.

To achieve good results the concrete shall be immediately covered with a plastic sheet and not allowed any direct wind contact. This shall eliminate shrinkage cracks.

3.1.7 Laying of concrete

a) Concreting shall commence only after form work is approved, reinforcement is recorded and permission to proceed with concreting has been approved in writing from the PM.

b) Form work should be clean, free from sawdust, pieces of wood or any other foreign material. It should have been treated by form releasing agent prior to the laying of

reinforcement and concrete. Prior to placing concrete against old concrete, masonry, rock all loose materials shall be removed and surfaces washed down. Concrete shall be worked around ties and bond and in open joints.

c) Concrete shall be as gently deposited as is practically possible, in its final position to avoid rehandling and shall be so deposited that segregation of aggregates does not occur. In case of deep trenches and footings, it may be done with the help of a chute. Columns and walls shall be so adjusted in form work so that maximum depth is 1.5 meter unless consented to by the PM. Concrete from wheel barrows shall not be dumped away from the face of concrete already in place. It shall be dumped into the face of concrete already in place. In excavations prevent contamination of earth and concrete without disturbing unsupported sides of excavation. Concrete shall not be placed in water except where specified.

d) Concrete onto a sloping surface shall be discharged by providing a chute with a baffle and a drop at its end so that the concrete remains on the slope.

e) Column sand walls shall be concreted in one operation to their full height to avoid any horizontal construction joint as far as possible.

f) All slabs, beams, wooden planks, and cat-walks shall be provided clear of reinforcement.

g) Concrete shall be placed in position within 30 minutes from the time it is produced. Concrete shall be laid during normal working hours. No concrete shall be laid within half an hour of the closing time of the day, unless permitted by the PM. Concreting at night or on holidays shall be permitted only on the written approval of the PM.

h) Placing in each section shall be a continuous between construction joints. The contractor shall make provision for standby equipment. In case of delay or break down stop ends are to be provided or concrete placed to be removed as per direction of the PM.

i) Placing shall not take in open during storms or rains, strong winds. Contractor to organise and provide required protection.

3.1.8 Compaction of concrete

Concrete shall be thoroughly compacted as depositing shall proceed by means of suitable vibrators. The vibrators shall maintain the entire concrete under treatment in an adequate state of agitation and shall continue during the whole period occupied by placing of concrete. Care shall be taken not to over- vibrate the concrete. While withdrawing needles no holes should be visible in concreting. Compaction shall be completed before the initial setting time. Concrete already set shall not be disturbed by successive vibrations. The specific instructions of the makers of the particular type of vibrator used shall be strictly complied with. Shaking of reinforcement for the purpose of compaction should be avoided.

It shall be ensured that the needle vibrators are not applied on reinforcement which may destroy the bond between concrete and reinforcement.

When electric vibrators are in use, the standby petrol vibrator must always be available at the concreting point.

3.1.9 Construction joints

In large pours, it is practically not possible to carry on concreting continuously. Hence construction joints shall be provided. Location of construction joint shall be submitted by the contractor for approval of the PM. Such joints shall be kept to a minimum. The joints shall be at places where shear force is nil or minimum and these shall be straight and at right angles to the direction of the main reinforcement.

Stop ends provided shall be with necessary slots for reinforcement bars to pass freely without bending or any other obstruction. Also a trapezoidal fillet nailed on stop board shall be provided to form a regular keyed joint. Joints shall be straight and truly vertical or horizontal. Inclined or feather joints shall not be permitted.

Before commencement of concrete, adjacent concrete stopper and surfaces shall be chipped and roughened to expose aggregate, then thoroughly cleaned with wire brush. The concrete surface shall be sprayed with water for 24 hours before casting and kept wet until casting.

True horizontal joints shall also be provided with a keyed joint by inserting planed greased timber.

Prepared joint shall be treated as above prior to the start of fresh concreting.

For vertical joints neat cement slurry shall be applied on the surface just before concreting. For horizontal joints, the surface shall be covered with a layer of mortar about 10 to 15 mm thick composed of cement and sand in the same ratio as the cement and sand in the concrete mix. This layer of cement slurry shall be freshly mixed and applied just before concreting.

3.1.10 Expansion joints

Expansion joints shall be formed and located as detailed in the drawing. Insert sealant to completely fill the joint and finish neat and smooth.

3.1.11 Curing

Curing of concrete is most important. There shall be no compromise on this activity and it is for the contractor to arrange for everything necessary to make sure that the concrete is cured to the complete satisfaction of the PM. As said above in clause 3.1.8, after concrete has begun to harden i.e. about 1 to 2 hours after laying, it shall be protected from quick drying with moist or damped hessian cloth, gunny bags, sand or any other material approved by the PM. After 24 hours of laying of the concrete, the surface shall be cured by flooding with water or covering with damp hessian cloth for a period of 7 days to keep it moist.

For the next 7 days the surface shall be kept wet all the time by sprinkling water continuously.

For membrane curing, details as listed in 12.5 of SP 24 shall be followed.

3.1.12 Finishing

Concrete shall be finished keeping in mind the next operation to be carried out over the surface. For guidance the following points shall be noted but the PM shall be consulted prior to start of concreting and his decision in this regard shall be final.

a) Roof slab shall be troweled even and smooth with a wooden float.

b) The surface that will receive plaster shall be roughened immediately.

c) Surfaces that will be in contact with any masonry work shall be roughened immediately.

d) The surface that will receive mosaic floor or IPS or any other type of tiled work shall be roughened while it is green. Every care shall be taken not to disturb the freshly laid concrete.

e) For dust proof (or hardened) finish, clean the concrete surface of oil and contamination and apply approved dust proof hardener as per manufacturer's instructions.

3.1.13 Inspection and corrective measures

3.1.13.1 On removal of form work, the surface shall be examined by the PM. Till such time, no remedial measures shall be carried out by the contractor. All patching, rectification or chipping shall be done only on the PM 's instructions. In case of any violation of this rule, the concrete poured stands rejected. The decision of the PM in this regard shall be final and binding on all parties.

Sagged, bulged, patched, honeycombed work shall stand to be rejected for surfaces that are exposed, or require fairface finish or decorative textured finish. The PM may permit any work found structurally safe and areas of unexposed faces, for repairing. As directed by the PM these works shall be retained and the cost of repair shall be at the contractor's account.

3.1.13.2 Cracks observed shall be brought to the notice of the PM who shall examine them. It shall be kept under observation and a record shall be maintained for a period of 45 days. It shall be shown to the Structural Engineer and the following procedure shall be followed:-

a) Cracks not developing further and in the opinion of Structural Engineer not detrimental to the strength of the construction shall be grouted with non-shrinking cement slurry or as directed by the PM.

b) Cracks developing further and, in the opinion of the Structural Engineer, detrimental to the strength of construction, shall be tested as per the relevant Indian standard.

c) Based on results of the test, the PM in consultation with the Structural Engineer shall order remedial measures or order the contractor to dismantle construction, cart away the debris, replace the construction and carry out all the consequential works thereto.

d) Cost of the above shall be borne by the contractor if the failure was on his part. In case it is due to design faults, it shall be borne by the employer.

e) The decision of the PM in this matter shall be final and binding on all parties. This decision shall not be open for arbitration.

3.1.14 Testing

3.1.14.1 Quantum of cubes and testing

The minimum frequency of cube casting shall be as follows. Each sample shall consist of 6 cubes.

Concrete quantity	Number of Samples.
Upto 5 cu m in a day	:1
5 cu m to 15 cu m	:2
15 cu m to 30 cu m	: 3
30 cu m to 50 cu m	: 4
More than 50 cu m	: 4 + one additional per each 50 cu m or part thereof

Three cubes shall be tested on the 7th day and other three cubes on the 28th day.

3.1.14.2 Field Tests

It is the responsibility of the contractor to prepare and get the cubes tested and to provide all the material, labour, moulds, equipment, casting and curing facility, charges for testing, etc.

Further, the contractor shall have to provide and maintain all the equipment and staff at the site throughout to carry out the following tests in a small laboratory or get these tests from approved laboratories without extra cost to the contract.

a) Grading of coarse and fine aggregates

b) Silt content of sand

c) Moisture content of coarse and fine aggregates

d) Slump test of concrete

e) Concrete cube test

3.1.14.3 The contractor shall maintain and produce full records of all above tests in a register. The format of records shall be prepared in consultation with the PM and either he or his representative shall have full access to the contractor's laboratory.

The contractor shall include charges for the above work in his rates and no extra whatsoever shall be admissible on this account of designing, testing, maintaining laboratory, etc.

3.1.15 CURING AND PROTECTION

The contractor shall submit the curing media and methods to be used for review 30 days before concrete placement begins.

3.1.15.1 Curing Time

All concrete shall be cured by one of the following methods or combination of methods for the period of time given below corresponding to the cementing materials used in the concrete:

- 53 Grade Portland cement — 7 days
- 53 Grade Portland cement in combination with silica fume. — 7 days
- 53 Grade Portland cement blended with 25 percent or less fly-ash or GGBF slag — 14 days
- 53 Grade Portland cement blended with more than 25 percent fly-ash or GGBF slag — 21 days

Curing shall begin immediately after placing. Provide all equipment heeded for curing and protection of the concrete on hand and ready to install before actual concrete placement begins.

3.1.15.2 Moist Curing

Concrete containing silica fume shall be moist cured. Horizontal and nearly horizontal surfaces shall be moist cured by ponding, by covering with a minimum uniform thickness of 50 mm (2 inches) of continuously saturated sand, or by covering with saturated non-staining burlap or cotton mats. Burlap and cotton mats shall be rinsed to remove soluble substances before using. Other surfaces shall be moist cured when approved or directed. Concrete that is moist cured shall be maintained continuously, not periodically, wet for the duration of the entire curing period. If the water, sand, mats, etc. cause staining or discoloration of permanently exposed concrete surfaces, the surfaces shall be cleaned by a method approved. When wood forms are left in place during curing, the forms shall be kept continuously wet except for sealed insulation curing in cold weather. When steel forms are left in place on vertical surfaces during curing of concrete OR when concrete being cured has a water-cement ratio less than 0.40 the forms shall be carefully broken loose from the hardened concrete and curing water continuously introduced into the void. The temperature of the water should be tepid. Horizontal construction joints shall be allowed to dry sufficiently to remove free water immediately prior to placing the next lift.

3.1.15.3 Membrane Curing

Membrane curing may be used on surfaces that are not specified or directed to receive moist curing and that are not to receive a grout-cleaned finish. Membrane-forming curing compound shall not be used on surfaces that contain protruding steel reinforcing, that are heated by free steam, that will have additional concrete bonded to them, or that are to be grout-cleaned.

3.1.15.3.1 Pigmented Curing Compound

Only pigmented compound of the styrene acrylate or chlorinated rubber formulation conforming to ASTM C 309, Class B, requirements may be used oh surfaces that are to be painted or to receive bituminous roofing or water proofing or floors that are to receive adhesive applications of resilient flooring. The curing compound selected by the Contractor for such use shall be

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compatible with any subsequent paint, roofing, coating, or flooring specified elsewhere in the contract.

3.1.15.3.2 Non-pigmented Curing Compound

Non-pigmented compound containing a fugitive dye may be used on surfaces that will be exposed to view when the project is completed. The reflective requirements of ASTM C 309 are waived. Surfaces cured with non-pigmented compound shall be shielded from direct rays of the sun for 3 days.

3.1.15.3.3 Application

The curing compound shall be applied to formed surfaces immediately after the forms are removed. The surfaces shall be thoroughly moistened with water, and the curing compound applied as soon as free water disappears. The curing compound shall be applied to unformed surfaces as soon as free water has disappeared provided steps have been taken when necessary to prevent premature loss of free water due to excessive evaporation as described in paragraph UNFORMED SURFACES above. The curing compound shall be applied in a two-coat continuous operation by motorized power-spraying equipment or pressure-tank equipment operating at a minimum pressure of 520 kPa 75 psi with provisions for continuous agitation. The application equipment shall be approved in advance. Hand-operated pressure applicators ("garden sprayers") shall not be used except in small, isolated areas as approved. The compound shall be applied at a uniform coverage of not more than 10 square meters/L 4 00 square feet/gallon for each coat. The second coat shall be applied perpendicular to the first coat. Concrete surfaces that have been subjected to rainfall within 3 hours after the curing compound has been applied shall be re-sprayed by the method and at the coverage specified. All concrete surfaces on which the curing compound has been applied shall be protected for the duration of the entire curing period from pedestrian and vehicular traffic and from any other influence that will disrupt the continuity of the curing membrane.

3.1.15.3.4 Protection

No fire or excessive heat shall be permitted near or in direct contact with concrete at any time. No vibratory earth compaction equipment or pile-driving equipment shall be operated within 30 m 100 feet horizontally of concrete less than 5 days old. Blasting shall not be permitted within 30 m 100 feet horizontally of concrete less than 90 days old. Blasting plans shall be approved by the Contracting Officer. All galleries, conduits, and other openings through the concrete shall be kept closed or sealed during the entire construction period. The surface of the concrete shall be protected from rain or snow during placing.

3.2 Concreting under special conditions

3.2.1 Work in extreme weather conditions

During hot or cold weather the concreting should be done as per the procedure set out in IS 7861 Part I or IS 7861 Part II or as directed by the PM

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3.2.2 Underwater concreting

The procedure set out under 14.2 of IS 456 shall be followed or as directed by the PM.

3.2.3 Concreting in sea water

The procedure set out under 8.2.8 of IS 456 shall be followed or as directed by the PM.

3.2.4 Concreting in aggressive soils and water

Guidelines laid down in 8.2.6 of IS 456 shall be followed together with the instructions of the PM.

3.3.0 Precast concrete

3.3.1 Precast concrete can be plain or reinforced. It shall meet all requirements and specifications of concrete as stated hereof. Precast concrete shall be done for cellular roof units, drainage or specially designed for specific use taking into consideration achievements in flexibility, speed and economy in construction.

3.3.2 Precast concrete units shall be cast in a suitable mould so as to make sure that they are,

a) Easy to lift

b) Easy to transport

c) Excellently finished

d) Handy to erect and join at site

Units shall be sound and free from cracks or any other defects that would interfere with the proper placing of units or the strength or performance of units or the structure.

3.3.3 Precast units shall be lifted and handled with proper tools from points designated to avoid any cracking or developing of any undue stresses. If required, necessary tools and tackles shall be fabricated by the contractor. Precast units shall be removed from mould within 24 hours or the time allowed by the designer or as approved by the PM.

The mould for casting shall preferably be of steel to ensure better surface finish of the precast unit. Provision shall be made in the mould to accommodate fixing devise etc. and suitable rebates to act as plaster grooves as specified.

All units that are, in the opinion of the PM, cracked and unsafe, shall be removed forthwith and no arbitration on this account shall be applicable.

Units shall be stored and stacked in the casting yard in a proper manner. The date of casting shall be noted therein and wet curing for 15 days shall be done without fail unless special curing methods are adopted which shall confirm to IS 6523. The yard shall have a duly dressed ground and sufficient supports at the required intervals to receive precast units.

Units shall be erected only after 28 days of casting and after the cubes of those days have given the strength specified.

Tolerances in units shall not be more than ±3 mm as approved by the PM taking into consideration the purpose and location of use.

3.4.0 Plum Concrete

Stone plums shall be used only when specified. Size of stone plums may be from 150 to 300mm. The maximum dimension of these stones or plums shall not exceed 1/3rd the least dimension of the members.

Plums shall be hard, double clean and free from soft or loose pieces or deleterious material and should not have sharp corners.

Generally first layer of concrete of specified mix shall be of thickness 2.5 time thickness of maximum size of plums to be used. Plums shall be laid when concrete becomes stiff but top portion is still green. No plums shall be used for concrete laid under water. The thickness of next and successive layers shall be 2 times that of largest plums.

While placing the plums, care shall be taken to see that the clear distance between any two plums is not less than either the width of thickness of either of the plums. The distance from plums to the outer surface or from any steel reinforcement shall be equal to greatest width of the plum.

If plums of stratified stones are used, they shall be laid on their natural bed. Stones with concave faces shall be laid with the concave upwards.

The thickness of the next and successive layers of concrete shall be at least twice that of the largest plums.

The total volume of plums shall not exceed 15 percent of the volume of the finished concrete

3.4.1 Plum Concrete considered as 3.4.1

3.4.2 High Performance Concrete

3.4.2.1 Material

3.4.2.1.1 Cement

Cement shall be ordinary Portland cement conforming to IS 12269 and shall be of grade 53 for structural use.

Cement shall be received with a Mill Certificate along with technical information including information on:

- Blaine Fineness- Na_2O / K_2O equivalent content

Cement that has been stored for over 3 months OR shows lumping /flocculation of particles shall be tested prior to use and preferably not put in use. Any additional testing shall be carried out at the direction of the project management consultant/Structural consultants prior to approval for use.

In neither case shall the cement content exceed 475 kg/m^3 in the final mix design.

3.4.2.1.2 Aggregates

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Prior to mixing all aggregates must be tested for compatibility with high alkali cementitious binders.

Crushed / manufactured aggregates shall be in conformance with IS standards for shape and angularity. Fines in manufactured sand shall be limited to 10% of total content. In no case shall the use of ONLY crushed sand be permitted unless the PM / Structural consultants are ascertained of:

- Source of stone/rock being crushed
- Crushing mechanism – jaw/cone
- Reactivity with alkalis
- Water absorption characteristics

3.4.2.1.3 Fly Ash

Fly Ash in conformance with IS 3812 shall be used. Testing shall be in conformance with IS 1727.

3.4.2.1.4 Microsilica

MicroSilica (Silica Fume) conforming to IS 15388 shall be used as replacement pozzolan in HPC. Product should be delivered in Densified form for conformance with Health and Safety Standards.

3.4.2.1.5 High Range Water Reducers

ALL HPC shall be mixed with the use of a High Range Water Reducer. The admixture may be of Polycarboxylate or Polysulfonate type. In the case of Polysulfonate admixtures should be used only where:

- Cement has a low C3A content (6 to 8%);
- Cement has soluble alkali sulfates (0.4 to 0.6%);
- Cement fineness is measured at lower than 400 m^2/kg

Mix design water content shall be adjusted according to admixture dosage and corresponding solids content

3.4.2.2 Mixing and Placing

3.4.2.2.1 W/C Ratio

The water-binder ratio shall be maximum 0.40 in the case of M60 and M70 concrete.

3.4.2.2.2 Placement Conditions

Placement of HPC shall be done only at night unless specified by the Project Manager/Structural Consultants. In special cases where required additional arrangements for placement shall be made whereby surface of HPC shall be water-mist cured approximately one hour after placement and finishing.

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3.4.2.2.3 Curing

Where possible, only evaporation retarder type curing compound shall be used. Use of wet burlaps may be made provided the water is made available to maintain temperature. Such curing may be permitted on columns where depths do not exceed 450mm. Curing membranes including use of polymer based applicable membrane / wrap shall be avoided.

In cases where such compounds are unavailable, HPC elements shall be externally water cured at all times for a minimum of 21 days.

Larger elements eg. Slabs shall be cured with the use of fog nozzles at all times.

3.4.2.3 Testing

3.4.2.3.1 Fresh Concrete

Fresh High Performance Concrete shall be tested for:

- Concrete Temperature
- Slump Flow – to be within specified slump as prescribed by Mix Design
- J-Ring or L-Box concrete test to measure passing ability in accordance with ASTM C 1621
- Static column segregation test in accordance with ASTM C 1610.
- Setting time (Needle Penetration)

3.4.2.3.2 Hardened Concrete

Hardened Concrete shall be tested for:

- Compressive Strength
- Rapid Chloride Permeability – Results shall be reported in Coloumbs of charge passed. Acceptable values shall lie within 1000 coloumbs.

3.5.0 Measurements

1. All works shall be measured in the decimal system.
   a) Dimensions shall be measured to the nearest 0.01 metre except for thickness of slab which shall be measured to the nearest 0.005 metre.
   b) Areas shall be worked out to the nearest 0.01 sq m
   c) Cubic contents shall be worked out to the nearest 0.01 cu m
2. All measurements of cutting shall, unless otherwise stated, be held to include the consequent waste.
3. Cement concrete work shall be classified as under:
   a) Concrete cast in-situ : Plain and reinforced
   b) Precast concrete : Plain and reinforced
   c) Prestressed concrete : Cast in-situ or pre-cast
4. All concrete, except as hereinafter provided, shall be measured in cubic meters.

5. The price of concrete shall include ingredient material, mixing, transporting, hoisting to any height and lowering to any depth, pouring or laying, consolidating, leaving pockets, holes, and protecting them till the next operation or completion of work, hacking the surface to provide key for further work including cleaning, curing and wetting surface, etc. and preparing construction joints as described in clause 3.1.9.of this section.

6. Concrete processed in a special manner for any specific purpose, such as cooled, heated, water-proofed, acid-proofed, heat-resistant shall be measured separately and as per provision in BOQ.

7. Admixtures shall be used if necessary at the request of the contractor for workability and the price for that shall be deemed to be included in the contractor's quoted price of concrete.

8. No deductions shall be made for :

   (a) Ends of dissimilar materials (for example beams, posts, girders, purlins, corbels and steps) upto 500 sq cm in section.

   (b) Opening upto 0.1 sq m.

   (c) Volume occupied by reinforcement.

   (d) Volume occupied by drainage, water pipes, conduits, etc. not exceeding 25 sq cm, each in cross sectional area.

   (e) Small voids each not exceeding 40 sq cm in section.

   (f) Small moulds, drip moulds, chamfers, splays, rounded or covered angles, beads, grooves and rebates upto 10 cm in depth and width.

9. Expansion joints shall be measured in running metre or sq m as the case may be. Price shall include required shuttering, special treatment if any, filler and finishing material as detailed in drawing or the BOQ.

10. Waterproofing of concrete shall be measured separately as an extra over ordinary concrete stating the quantity of water proofing material in litres or kilograms.

11. Surface treatment shall be measured in square metres stating number of coats and proportioning of water proofing liquid to water.

12. Grouting of holding-down bolts and providing temporary boxing or wedges to form holes shall be enumerated. The mix shall be specified. The price shall include required shuttering, grouting, etc.

13. To keep surface dry while concreting, dewatering due to rains and seepage shall be included in the price of concrete.

SECTION – 1/B

REINFORCEMENT WORK

1.0 GENERAL

1.1 Standards

Work shall be carried out to Indian Standards and Code of Practices. In absence International Standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies /conflict noticed shall be directed to the Architect for his direction/approval. However as a general rule more stringent specification shall take precedence.

1.	IS 226	Specification for steel standard quality
2.	IS 228	Methods for chemical analysis of steels
3.	IS 280	Specification for mild steel wire for general engineering purpose.
4.	IS 432	Specification for mild steel and medium tensile steel burn and hard drawn steel wires for concrete requirement.
	Part 1	Mild steel and Medium tensile steel bars.
	Part 2	Hard drawn steel wire.
5.	IS 456	Code of practice for construction and design of reinforced concrete.
6.	IS 816	Code of practice for use of metal arc welding for general construction in mild steel
7.	IS 961	Specification for structural steel : high tensile steel bars
8.	IS 1566	Hard drawn steel wire fabric for concrete reinforcement.
9.	IS 1599	Method of Bend test
10.	IS 1642	General requirements for fire protection.
11.	IS 1785	Cold drawn stress relieved wire (part I)
12.	IS 1786	Specification for high strength deformed steel bars and wires for concrete reinforcement.
13.	IS 2751	Code of practice for welding of MS bars.

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14.	IS 2502	Code of practice for bending and fixing of bars for concrete reinforcement.
15.	IS 2751	Code of practice for welding of Bars
16.	IS 3696	Safety Code of scaffolds and ladders :
	Part 1	Scaffolds
	Part 2	Ladders
17.	IS 4014	Code of practice for steel (Part 1 & 2) tubular scaffolding
18.	IS 4082	Recommendation on stacking and storage of construction materials at site
19.	IS 5525	Recommendation for detailing of reinforcement in RCC work.
20.	IS 9417	Recommendation for welding cold worked steel bars for reinforced concrete construction
21.	IS 10790	Method of sampling of steel for prestressed and reinforced concrete

1.2 Quality Assurance

1.2.1 The Contractor shall procure and provide reinforcing steel bars conforming to IS specified and shall comply with all physical, chemical and mechanical test. Each type shall be from same manufacturer.

1.2.2 Steel manufacturers shall conform steel produced conforms IS requirements for reinforced cement concrete works.

Steel shall not react chemically with ingredient of reinforced cement concrete which are harmful to strength, durability of reinforced cement concrete.

1.2.3 Unit weights and diameter of rolled steel bars shall conform to IS.

1.2.4 Provide supervision and work force with minimum 5 (five) years experience to ensure workmanship of specified quality.

1.2.5 Contractor to undertake documenting of

- Test reports for steel brought at site for each lot
  - a) Chemical composition from factory
  - b) Mechanical
  - c) Physical

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- Barbending schedule for cutting and bending
- Record of laps and anchors / development length

1.2.6 Work shall not be subjected to harmful, dangerous and damaging exposures.

1.2.7 Steel used on site shall be from leading manufacturers like SAIL, TISCO, RINL

1.2.8 Couplers

- The Contractor shall procure Couplers conforming to IS or ISO 15835-1 : 2009 and ISO 15835-2 : 2009 for test and as modified in draft IS CED54 20 May 2010 (or as approved and published by BSI) and shall be purchased from approved manufacturer as given by Structural PM.
- Type of threading shall be as required for specific use and as approved by the Structural Consultant / PM.
- IS Code references given there in for metallic materials, testing, sampling etc. shall be as detailed in draft IS.
- Material test reconsult of complains shall be conforming to IS code as listed.
- Coupler manufacturer shall give test certification along with each lot of supply.
- Threading at site or at factory shall be done as per code and agency should have experience of minimum 2 years.

1.3 Submittals

1.3.1 Submit for approval of the Architect all details of Material / Product which conforms the specification laid down in documents.

1.3.2 Submittals shall include

- Product data sheet
- Manufacturers certificates
- Test report of laboratories
- Alternative product if any with tabulation for conformation that alternatives proposed meets / exceeds specification.

1.3.3 Samples

Samples of type of materials to be used. Further during construction samples shall be taken and tested by the Contractor as per specification and as directed / instructed by the Architect. The cost of samples and test shall be borne by the Contractor within quoted prices.

1.3.4 Shop drawings

Contractor shall prepare and submit bar bending schedule based on structural detailed drawing prior to fabrication for approval of the Architect.

1.3.5 Submittals for Couplers

- Samples along with name of manufactures
- Technical literature
- Test Certificates

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- Experience of threading agency

1.4 Examination of Conditions

Contractor shall inspect and examine sub stratas and confirm prior to start that.

- Substrate is acceptable and approved by Architect
- Conditions are satisfactory
- Setting out/Layout is verified
- Corrective measures needed if any are within reach and contractor proceeds with full responsibility for work.

2.0 MATERIAL

2.1.0 Reinforcing Bars

2.1.1 Reinforcement bars used in construction shall be mild steel or medium tensile steel round bars and high strength deformed bars. Steel shall be fresh and new. It shall be free of defects and free of rust, oil, paints, grease, loose mill scale or any other deleterious material undesirable for RCC or prevent adhesion of concrete with reinforcement.

Steel should be from the original iron ore producers (like SAIL, TATA, RIN). If other steel is to be used then billets should be approved from SAIL, TATA, RINL. Other steel can be used only after prior approval of the PM.

2.1.2 M S Plain

Rolled mild steel and medium tensile steel plain round bars used in concrete shall conform to IS 432 Part I. Steel received shall conform to the following IS with regard to manufacturing and chemical composition.

1.	M.S. bar Grade I	Steel designation Fe 410-S of IS 226
2.	M.S. bar Grade II	Steel designation Fe 410-O of IS 1977
3.	Medium Tensile	Steel designation Fe 540 Steel bars W-HT IS 961

2.1.3 Nominal sizes and tolerances shall be as specified in IS 432 Part I. Physical requirements shall be determined in accordance with IS 1608, read in conjunction with IS 226. For reference of minimum requirements, properties are tabulated in IS 432 Table 1 "Mechanical properties of bars mild steel & tensile steel bars".

2.1.4 Tor Steel

High-strength deformed bars for use as reinforcement in concrete shall be of grade Fe 415, Fe 500 and Fe 550 conforming to IS 1786.

2.1.5 Chemical composition shall conform to IS 1786 when made as a relevant part of IS 228.

2.1.6 Welding of cold work steel bars in reinforcement shall be permitted as per IS 2751 and 9417. (Recommendation for welding cold worked steel bars for RCC).

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2.1.7 Nominal sizes, cross sectional areas and their mass shall be as specified in IS 1786, allowing due consideration for tolerances specified therein.

2.1.8 Physical properties

a) It shall satisfy IS 1599 test for bend and rebend test in conjunction with IS 226.

b) Bond requirements shall be deemed to have been satisfied if it meets clause 4.0 of IS 1786.

c) Tensile, proof stress and percent elongation shall be as per table 3 of IS 1786.

2.1.9 Material received at site shall have ISI certification mark. Each bundle or coil containing the bars shall be suitably marked with ISI certification mark. Also bars shall be marked to identify categories. This shall be done as per IS 1387.

In case bars are without ISI certification mark, the manufacturer shall give a certificate stating process of manufacture, chemical composition and mechanical properties. Each certificate shall indicate the number or identification mark of the batch production/ cast to which it applies. Corresponding number or identification mark should be found on the material.

2.1.10 All reinforcement material shall be free from loose mill scale, excessive rust, loose rust, pitting, oil, grease, paint, mud or any foreign deleterious material present on the surface. Cleaning shall be done to the satisfaction of the Architect.

2.1.11 Each batch brought at site shall be tested prior to use for respective specification / physical properties. Cost of all such tests shall be borne by the contractor. Material acceptable as per IS shall be allowed into the works. All rejected material shall be removed from site by the contractor within 3 days of rejection. If the same is not done, the Architect shall impose a penalty of Rs.500/- per metric ton per day. This will be without any appeal and shall not be subjected to arbitration.

2.2.0 Cover block

Cover blocks shall be of non-corrosive material such as plastic but not wooden or broken bricks or stone. Designed purpose made PVC cover spacers shall be used in the Works. Concrete cover spacers may be permitted by the Architect. Such concrete spacers shall be cast from concrete and not cement-mortar. Strength of these blocks shall be equal to the strength of concrete in use. These should be fully cured prior to use in works.

2.3.0 Binding Wire

Binding wire shall be 18 gauge annealed wire conforming to IS 280. It shall be free from rust, oil, paint, grease, loose mill scale or any other deleterious material undesirable for the reinforcement and concrete or which may prevent adhesion of concrete with reinforcement.

2.4.0 Mechanical Splices

Mechanical Splices fabricated out of steel pipes, sheets etc. capable of withstanding bending and compression stress equal to 1.25 times of those specified for reinforcing bars shall be used.

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Supplier of splices should submit details about quality of materials, mechanical test results and method of splicing. Required hydraulic press and clipping equipments shall be arranged by the Contractor.

Samples pieces shall be prepared at site and shall be tested for torsion. Sample pieces results should give value of about 1.5 times than required for reinforcing bars.

3.0 SCOPE OF WORK

The contractor shall be responsible for

3.1 Material Procurement

a) The contractor will submit the Schedule of Procurement of steel in consultation with Architect as specified and conforming to specifications detailed in drawings and bills of quantities.

The steel is free supply by the client to be delivered to site as per approved indent of the contractor to agreed schedule. However further all balance work to complete the reinforcement bar item shall be same as materials are supplied by the Client.

b) Receive steel and stack with covering on firm platform free of contamination.

c) Collect samples of each type for every batch received and test as per IS for

- Unit weight per running meter
- Cross section area
- Bend / Rebend Test
- Ultimate tensile strength
- Yield stress
- Elongation

d) Procure binding wire, cover blocks splices etc.

e) Procure Couplers of type and strength as specified

3.2 Prepare bar bending / cutting schedule detailing schedule covering as under and obtain approval of Architect.

- Cutting lengths
- Laps / Coupler
- Rings for various locations and items
- Chairs

3.3 Transport, cut, bend and shift to site reinforcing bars.

3.4 Place in position and tie as detailed in drawing reinforcement with specified cover.

3.5 Provide attendance to keep reinforcement in position during concreting.

3.6 Disposal of surplus reinforcement steel as per approval of the Architect.

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3.7 Provide anticorrosive treatment to reinforcement bars including required handling, application, touch up and maintenance till concreting by either

a) CECRI System : Cement polymer composite coating system

b) Fusion bonded epoxy coating.

3.8 Providing required tools, plants, equipments such as

- Material cutting and bending tools
- Bending platform Bar cutting machine
- Bar bending machine
- Hydraulic clipping machines

3.9 Unit weights payable per metre shall be as follows-

1.	6 mm	:	0.22 kg/Rmt
2.	8 mm	:	0.40 kg/Rmt
3.	10 mm	:	0.62 kg/Rmt
4.	12 mm	:	0.89 kg/Rmt
5.	16 mm	:	1.58 kg/Rmt
6.	18 mm	:	2.00 kg/Rmt
7.	20 mm	:	2.47 kg/Rmt
8.	22 mm	:	2.98 kg/Rmt
9.	25 mm	:	3.85 kg/Rmt
10.	28 mm	:	4.83 kg/Rmt
11.	32 mm	:	6.31 kg/Rmt
12.	36 mm	:	7.99 kg/Rmt
13.	40 mm	:	9.85 kg/Rmt

3.10 Thread the bars at site or factory as required.

3.11 Check bar threading is of required length.

3.12 Couplers are fitted to minimum length within Couplers.

3.13 Check both side threads prior to shifting at site.

3.14 Mechanical Couplers shall be able to transfer of axial tensile force and / or compressive force from 1 bar to another.

3.15 Fitting matching threaded Coupling device over the ends of two reinforcing bars.

3.16 Length of Couplers shall be as per code.

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4.0 WORKMANSHIP

4.1 Fabrication of reinforcement

Reinforcement shall be fabricated as per the drawing and approved bar bending schedule. Bending shall be done mechanically or with hand but to the correct radius, with proper tools and platform and shall conform to IS 2502. Bending of material shall be cold bending only. Material shall be inspected for visible defects such as cracks, brittle, excessive rust, loose mill scale, etc. Cracked ends of bars shall not be used in Works. Also the bars should be free from any deleterious material and hence the best practice shall be to hose down reinforcement just prior to concreting.

It is important that bending, straightening, cutting, etc. shall be carried out in a manner not injurious to the material and the safety of the persons working should be ensured.

4.2 Anchoring

Anchoring of bars and stirrup shall be provided exactly as detailed in the structural drawing or as directed by the Architect.

4.3 Lapping of bar

Laps shall be strictly as per the drawing or as directed by the Architect. For general guidance, the following principles shall be followed as given in IS 456.

a) Splices shall be provided as far as possible away from sections of maximum stress and be staggered.

b) Not more than half of the total bars shall be spliced at a section.

c) Where more than one half of the bars are spliced at a section or where splices are made at points of maximum stress, special precautions shall be taken, such as increasing the length of lap and/or using spirals or closely spaced stirrups around the length of the splice.

d) Lap splices shall not be used for bars larger than 36 mm diameter: For larger diameters, bars may be welded. In cases where welding is not practical, lapping of bars larger than 36 mm diameter may be permitted and additional spirals should be provided around the lapped bars.

e) Lap length including anchorage value of hooks in flexural tension shall be Ld (as defined in 25.2.1 of IS 456) or 50 dia whichever is greater.

f) When splicing of welded wire fabric is to be carried out, lap splices of wires shall be made so that the overlap measured between the extreme cross wires shall be not less than the spacing of cross wires plus 10 cm.

Lapping of Bar

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4.3.1 Lapping of bar can be with physical reinforcement of bar or by using approved type of coupler. Coupler shall be strictly as per the drawing or as directed by the PM. For general guidance, the following principles shall be followed as given in IS 456.

4.3.2 Installation of Couplers shall be as per written instruction given by approved manufacturer and as approved by PM. The work shall be done exactly as specified and should achieve performance under different site circumstance.

4.4 Spacing of bars

Bars shall be placed in position as shown in the drawing. Following guidelines as given in IS 456 shall be followed in case of difficulties or shall be carried out as directed by the Architect.

a) Horizontal distance between two parallel main reinforcing bars shall usually not be less than the greatest of the following:

1. The diameter of the bar, if the diameters are equal.
2. The diameter of larger bar, if the diameters are unequal, and
3. 5 mm more than the nominal maximum size of coarse aggregate (By using reduced size of aggregate in congested reinforced area, conditions given hereof should be overcome).

b) Greater horizontal distance should be provided. But when needle vibrators are used, distance between bars of a group may be reduced to two-thirds of the nominal maximum size of the coarse aggregate, provided sufficient space is left between groups of bars to enable the vibrator to be immersed.

c) Where there are two or more rows of bars, the bars shall be vertically in line and the minimum vertical distance between the bars shall be 15 mm, two-thirds the nominal maximum size of the aggregate or the maximum size of bar, whichever is more.

4.5 Cover to reinforcement

Reinforcement shall have concrete cover and the thickness of such cover (exclusive of plaster or other decorative finish) shall be as specified in drawing or as directed by the Architect. The following guidelines are to be observed in the absence of the above.

a) At each end of the reinforcing bar, not less than 25 mm, nor less than twice the diameter of such bar;

b) For a longitudinal bar in a column, not less than 40 mm, nor less than the diameter of such bar. In the case of columns of minimum dimension of 200mm or under, whose reinforcing bars do not exceed 12 mm, a cover of 25 mm.

c) For longitudinal reinforcing bar in beam, not less than 25 mm, nor less than the diameter of such bar.

d) For tensile, compressive, shear or other reinforcement in slab, not less than 15 mm, nor less than the diameter of such bar; and

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e) For any other reinforcement, not less than 15 mm, nor less than the diameter of such bar.

f) Increased thickness shall be provided in case the concrete members are in the surrounding of harmful chemicals, saline atmosphere, etc. and the cover shall be 50 mm or more as directed by the Architect.

g) For concrete members totally immersed in sea water, the cover shall be 40 mm more than specified above (a) to (f).

This shall be 50 mm more for periodical immersion in sea water.

h) Concrete cover should not exceed 75 mm in any case. Cover to reinforcement shall be as specified in the drawing or as directed by the Architect.

Details given in sub para (a) to (h) are for guidance and shall be followed in absence of any specific direction.

4.6 Welded joints or mechanical connections

A) Welded joints or mechanical connections in reinforcement may be used but in all cases of important connections, tests shall be made to prove that the joints are of the full strength of the connected bars. Welding of reinforcement shall be done in accordance with IS recommendation. Welded joints shall preferably be located at points where steel will not be subject to more than 75 percent of the maximum permissible stresses and welds so staggered that, at any one section, not more than 33 percent of the rods are welded.

B) Welding rods used shall conform to IS 814 : covered electrodes for metal arc welding of structural steel. Work shall be carried out by a competent welder. Samples from work site shall be taken at regular intervals and tested. Frequency and number of samples shall be as directed by the Architect.

4.7 Fixing in position

4.7.1 Correctly cut and bent bars shall be accurately placed in position as detailed in the drawing. Unless otherwise specified by the Architect, reinforcement shall be positioned within the tolerance as under :

a) for effective depth 200 mm or less, + 10 mm

b) for effective depth more than 200 mm, + 15 mm

4.7.2 But in no case shall the cover be reduced by more than 5 mm of that specified. There shall be no compromise on cover for foundation work.

4.7.3 Reinforcing bars shall be held in position during the placing of concrete by use of PVC or concrete cover blocks (made of equal strength of well-cured concrete in use), steel chair spacers, steel hangers, supporting wires, etc. and secured by tying with an annealed binding wire of 16 to 18 gauge as approved by the Architect.

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4.7.4 Layer of bars shall be separated by precast concrete spacer blocks or spacer bars. Reinforcement shall be in correct position prior to start of concreting. No reinforcing bar shall be placed on freshly laid concrete for adjusting bar spacing. Care shall be taken to maintain reinforcement in position and keep it clean, throughout the period till it is embedded in the concrete. For maintaining cover, pieces of broken stone or brick or wooden blocks shall not be used at any stage.

4.7.5 Where reinforcement bars are bent aside at construction joints and afterwards bent back into their original position, care should be taken to ensure that at no time is the radius of the bend less than 4 bar diameters in case of plain mild steel or 6 bar diameters for deformed bars. Care shall be taken when bending back bars to ensure that the concrete around is not damaged/disturbed.

5.0 MEASUREMENTS

Reinforcement shall be measured as follows :

1. Lengths of different diameters of bars actually used including authorised overlaps shall be measured nearest to a centimeter and their weight calculated.
   a) If steel is procured by the contractor, weight per metre given in table 3.9 shall be used.
   b) If material is supplied by the client free of cost on tonnage basis to the project site, per metre weight for each diameter of the bar shall be fixed by the Architect from actual stocks of steel available at site or weight per meter given in table 3.9 shall be used.
2. Chairs and spacer bars shall not be measured and paid. For reconciliation purpose it will be taken into account.
3. In case of welded coupled joints, measurement for payment shall be equivalent to the length of overlap, as per design.
4. Price build-up shall include, in addition to cost of material,
   a) Cover blocks of PVC or concrete.
   b) Cutting, bending, placing and fixing in position.
   c) Binding wire as approved.
   d) Cleaning of bars.
   e) Unloading, weighing cost (to conform the weight of steel) and storing the same in proper forms and conditions on suitable platforms.
5. In case the material is supplied by the owner free-of-cost, it shall include the following in addition to 4a) to 4d) above.

   Transportation from owner's store to work site and returning surplus material back to store.
6. For purpose of reconciliation, maximum wastage permitted shall be 3% of the actual material used (returnable to owner). Balance shall be charged at 1.5 times the actual market rates as penalty.

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SECTION – 1/C

FORM WORK

1.0 GENERAL

1.1 Standards

Work shall be carried out to Indian Standards and Code of Practices. In absence International Standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies/conflict noticed shall be directed to the Architect for his direction/approval. However as a general rule more stringent specification shall take precedence.

1.	IS 303	Specification for plywood for general purpose.
2.	IS 456	Code of practice for construction and design of reinforced concrete.
3.	IS 2751	Code of practice for welding of M.S bars used for RCC
4.	IS 3696	Safety Code of scaffolds and ladders :
	Part 1	Scaffolds
	Part 2	Ladders
5.	IS 4014	Code of practice for steel (part 1 & 2) tubular scaffolding
6.	IS 4082	Recommendation on stacking and storage of construction materials
7.	IS 8989	Safety code of erection of concrete formed structures

1.2 Quality assurance

Contractor shall assume and take upon himself to

a) Design, construct, erect, maintain and struck form work proprietary or custom made

b) Form work shall provide required

- Shape, size and finish
- Rigidity and durability during placing(live levels)
- Rigidity and durability for receiving fresh concrete
- Leak proof water tight joints/junctions
- Easy removal without disturbing concrete
- Provide easy access for handling and placing

c) Form work shall provide safety and shall have adequate access for concreting

d) Workers shall work with required safety measures such as safety belts, helmet etc.

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1.3 Experience

The contractor shall provide

a) Site supervisors and foremen qualified and experienced atleast 5(five) years on similar nature of form work.

b) Semi skilled/skilled labour shall be of minimum experience of 5(five) years in doing similar nature of form work

1.4 Examination of strata

The contractor shall examine, and convince himself prior to start of work that strata is firm, rigid and safe to erect scaffold. In absence, same shall be prepared by him and then work shall proceed. If it is not possible due site condition, method of erection support etc. shall be detailed and got approved from Architect prior to start. In any case responsibility of formwork shall be that of the contractor.

2.0 MATERIAL

2.1 Timber

a) Jungle wood timber in form of planks, battens (runners), ballies, strong durable without cracks, able to sustain warping, twisting and distortion shall be allowed in work for type of requirements.

b) Teak wood /good quality jungle wood shall be used for special decorative moulds. Moulds may be smooth planed or finished with laminate

2.2 Steel

Standard rolled steel sections shall be used with due fabrication of standard special moulds, unitised form work scaffolds, staging etc.

2.3 System

Patented proprietary designed metal (Steel, aluminium or fiber glass) form work best suited for type of work under taken and its requirements shall be used.

2.4 Wire nails confirming to IS and mating needs shall be used.

2.5 Bolts / Nuts /Clamps

MS bolts, nuts, clamps standard or purpose made shall be used. Use of these shall not be harmful to concrete and shall be easily removable or if left in concrete shall be inert to concrete in all respect.

2.6 Form release Agents

Emulsion and oil or chemical agent being used shall not react with reinforce concrete at any stage. No chemical reaction shall take place which may be harmful to reinforcement concrete for its durability strength. These shall not produce any stain and shall not stick to concrete surfaces which will reduce further bonding strength of masonry mortar, painting etc.

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3.0 SCOPE OF WORK

3.1 Designing

The contractor shall design, draw, prepare and submit method of statement backed by designed calculations, taking into account the points noted in clause 1.2 here above atleast six weeks prior to the starting of activity. Required drawing and sketches shall be enclosed along with statement for the proposed area to be taken up for working. The statement shall give

- Loadings considered
- Materials proposed
- Repetitions expected
- Staging/supporting arrangement
- Deployment of proprietary metal form work system.
- Method of handling

It shall be responsibility of the contractor to get the design approved from Architect atleast four weeks prior to start of formwork.

Plywood shall be changed after 10 Repetitions.

3.2 Equipments

The contractor shall provide required tools, plants, equipments including its proper maintenance during construction at site.

3.3 Proprietary metal formwork

The contractor shall arrange to provide proprietary system metal formwork applicable/adoptable to various areas of works. He shall be responsible to deploy with required mechanism for handling, shifting, transporting placing in position.

3.4 Supervision

The contractor shall be responsible to provide experienced foremen (atleast Five years) in supporting/executing similar nature and magnitude of work. He shall be able to read drawings and should be capable of guiding and getting work executed to quality.

3.5 Labour

The contractor shall provide experienced skilled carpenters to carryout work with system of formwork deployed and necessary plants and equipment shall be made available at site.

3.6 Climbing Form Work

3.6.1 Core with multiple shear walls and columns which are going from bottom to top are proposed to be constructed using proprietary climbing form work operated hydraulically for jumping / lifting. These formworks, allows to erect reinforcement, fixing inserts / couplers and erecting formwork to correct line level without aid of cranes eliminating shifting, transforming positioning of panels

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around shear walls / columns and achieving accuracy in plum, line level without any additional time and man power.

It is expected that these jump forms able to rise within 3 to 4 hours per lift @ 4.5 M and able to achieve per floor cycle of 4 days is envisaged. These shuttering are available for column and shear walls from all reputed international shuttering system manufacturers such as Peri, Doka, Meva etc.

3.6.2 Features :

* Working scaffold with a platform width of 230 cm.
* Support platform for wall formwork : working scaffold with integrated formwork support to place the (separate) formwork on the bracket.
* Climbing formwork : climbing scaffold with tightly connected, tilting formwork.
* Climbing formwork with slide carriage : the formwork is placed on the slide carriage which is tightly attached to the scaffold; sliding range 70 cm.
* Single-side climbing formwork : the concrete pressure is transferred through braces and the wall strut of the climbing bracket into the previous pour.
* Sturdy brackets suited for a formwork height of up to 7.25m
* Suspension shoe with +- 3cm play

3.6.3 Benefits :

* Safe working even in great heights.
* Fast and safe mounting of the formwork with assembly locks.
* Cost effective climbing scaffold, scaffold and formwork can be moved by crane as one unit.
* Simple sliding of the formwork – forward and backward.
* Sufficient working space for cleaning and rebar works.
* Complete unit can be moved in one lift.
* Economical and safe climbing solution for single-sided formwork.
* Save crane time by building large gangs.
* Practical suspension, simple and safe.

Couplers IS code no. CP 54

IS 14687 – False work for concrete structures guidelines

4.0 WORKMANSHIP

4.1 Form work shall be classified namely as follows :

a) Textured or decorative finish

b) Fair-faced finish

c) Rough finish

In BOQ, the contractor shall account for all material and labour etc. to achieve the above finishes to the satisfaction of the Architect in his quoted price.

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4.2

1. Erection of form work may be from pre-moulded, pre-fabricated, pre-assembled plates or forms reasonable enough to transport and erect at site to correct line and level as set out at site. Supports shall be firm and maintained in position by nails, cross bracings, tie rods, locking bolts and nuts. It shall be rigid and stiff so as to retain its shape during and after concreting.
2. Joints shall be water-tight and no cement slurry shall be allowed to slip through. In joints foamed tapes shall be used.
3. Pre-fabricated or site forms shall be assembled, so as to deshutter without any jerk to the green concrete. For this double wedges shall be used. Wedges shall be nailed, the heads reasonably left out, allowing easy removal while deshuttering.
4. Pre-fabricated or on site fabricated forms shall be of sufficient thickness and with the required supporting runners in either direction. Supporting runners shall be standardised in size for easy replacement and universal use at site.
5. Props shall be of steel only. Teak ballies may be permitted with written permission of the Architect for specific use. Size and verticality shall be approved by the Architect. Its spacing shall be as per design. It shall be vertical and plumbed. Base shall be a proper steel plate or timber plank, for equal distribution of load.
6. In repeated use, panels shall be clearly marked for using at defined locations.
7. Successive lift shall be tightened with previous lift by fixing foamed strips at joints to avoid grout leakage.
8. In fill pieces and panels shall be well dressed, leveled and jointed with main formwork so as to achieve smooth, even natural finish.
9. Props, Soldiers, wallings, Shores, bearers, Clamps, wall & ties etc. shall be at required spacings.
10. Props, shores shall be securely braced with firm bearing.
11. Provide and fix or fix only inserts pockets, to correct line and level and with sufficient rigidity to keep in position while concrete placing is in progress along with vibration.
12. Sloping, brackets, chajjas etc shall be well secured and firmly restrained.
13. Adequate access and working platform shall be arranged with required safety to avoid reinforcement displacement, damage to shuttering and easy movement of concrete gang.
14. Props and scaffolds are to be erected to correct plumb, line, level and with required tie. Load carrying capacity of props shall be as per table of manufacturer.
15. Props and scaffolds shall not be loaded more than allowed by manufacturer of Props /scaffolds.
16. Heavy, medium and light duty props shall not be mixed up.
17. Beams and slabs shall have camber of 4 mm per metre or as directed by the Architect.

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18. All angles and corners shall be sharp and well defined. In places where concrete edges are permanently exposed and require no further treatment, they shall be chamfered in a tringle of 25x25mm.

19. Props of steel or timber (if approved in writing) shall be provided with adequate horizontal and cross - bracing. Steel props shall use steel pipes and steel couplers. If use of timber is permitted, planks of 100 x 25 mm shall be used and shall be secured by nailing them to timber props. No other material shall be permitted.

20. At the design and erection stage, the following additional points shall be considered and incorporated into the shutters.

    a) Openings for cleaning prior to start of concreting.

    b) Pouring points shall avoid high drops and provide easy access to vibrator needles.

21 Surfaces shall be treated with mould releasing oil or emulsion as approved by the Architect prior to reinforcement laying.

22. The following point shall be observed very carefully:

    a) Joints of moulds shall be water-tight. It is easy to check from bottom and make sure that no light is visible.

    b) Props shall be on solid base, plumbed, in one straight line, and braced horizontally and cross.

    c) Tie bars in beams, walls and columns shall be at the correct place and fully tight.

    d) Wedges shall be fully secured and nailed with head left out for easy removal.

    e) All saw dust, dirt, shaving and any other unwanted materials shall be cleaned and hosed out.

    f) Provision shall be made for watching form work while concreting and any other platform needed for movement of workers without any disturbance to reinforcement.

23. Opening/inserts

    All required openings and pockets shall be provided as detailed in the drawing. The contractor shall provide for the required material, labour for fixing and supporting during concreting, in his quoted price. It is imperative that all openings and pockets shall be deshuttered with care and all corners of openings shall be preserved. All openings/pockets shall be in a correct line and level. After concreting, the openings shall be secured by proper covering against any accident and guard rail and warning notice, if any will be incorporated.

24. In case of multistorey building, any upper floor shall be suitably supported on atleast one floor below the same or as approved by the Architect. The concreting of upper floor shall be done only after lower floors have attained the strength.

4.3. Checking prior to concreting.

1. All props and struts are plumbed at right spacing properly tightened up and locked.

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2. Formwork is correctly aligned and leveled.
3. Stop ends are properly secured and sealed.
4. All ties are properly tightened.
5. All inserts, pockets etc are at desired level and secured.
6. Joints are sealed and no possibility of leakage of grouts.
7. Reinforcement has proper covers and required spacers.
8. All forms are cleaned, free from rubbish, tie wires etc.
9. Proper access for concreting and compaction available.
10. Required guard rails, toe boards are provided

4.4 Tolerances

4.4.1 Tolerance is a specified permissible variation from lines, grade or dimension given in drawings. No tolerances specified for horizontal or vertical building lines or footings shall be considered to permit encroachment beyond the legal boundaries. Unless otherwise specified, the following tolerances will be permitted.

4.4.2 Tolerances for RCC buildings

1. Variation from the plumb :
   a) In the lines and surfaces of columns, piers, walls and in arises 3 mm per 2.5 m but not more than 10 mm.
   b) For exposed corner columns and other conspicuous lines,

In any bay upto 5 m maximum	:	5 mm
In 10 m or more	:	10 mm

2. Variation from the level or from the grades indicated on the drawings,
   a) In soffits of slab, ceilings, beam and in arises

In 2.5 m	5 mm
In any bay upto 5 m maximum	8 mm
In 10 m or more	10 mm

   b) For exposed lintels, sills, parapets, horizontal grooves and other conspicuous lines,

In any bay upto 5 m maximum	5 mm
In 10 m or more	8 mm

3. Variation of the linear building lines from established position in plan and related position of columns, wall and partitions.

In any bay upto 5 m maximum	5mm
In 10 m or more	10 mm

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4. Variation in the sizes and location of sleeves, openings in walls and floors 5mm (except in the case of and for anchor bolts).

5. Variation in cross-sectional dimensions of columns and beams and in the thickness of slabs and walls - 5 mm + 10 mm

6. Footings

a) Variation in dimension in plan - 5 mm + 50 mm

b) Misplacement or eccentricity

2% of footing width in the direction of misplacement but not more than 50 mm

c) Reduction in thickness

5% of specified thickness subject to a maximum of 50mm

7. Variation in steps

		Riser	Tread
a)	In a flight of stairs	3 mm	5 mm
b)	Consecutive steps	1.5 mm	3 mm

4.4.3 Tolerances in other concrete structures.

1. a) Variation of the constructed linear outline from established position in plan

In 5 m : 5 mm

In 10 m or more : 10 mm

b) Variations of dimensions to individual structure features from established positions

In 20 m or more : 25 mm

In buried construction : 50 mm

c) Variation from plumb, from specified batter or from curved surfaces of all structures

Upto 2.5 m : 3 mm

2.5 m to 5 m : 8 mm

5 m to 10 m or more : 12 mm

In buried construction : Twice the above

d) Variation in cross sectional dimensions of columns, beams, buttresses, piers and similar members

(-) 5 mm (+) 10 mm

e) Variation in the thickness of slabs, walls, arch sections, and similar members.

(-) 5 mm (+) 10 mm

2. Footings for columns, piers, walls, buttresses and similar members.

a) Variation of dimensions in plan

(-) 10 mm (+) 50 mm

b) Misplacement or eccentricity

2% of footing width in the direction of misplacement but not more than 50 mm

c) Reduction in thickness

5% of specified thickness subject to a maximum of 50mm

4.5 Removal of form work

4.5.1 1. Forms shall not be struck until the concrete has reached a strength at least twice the stress to which the concrete may be subjected at the time of removal of form work.

Under normal circumstances and where 53/43 grade O.P. Cement is used, forms shall be removed after expiry of the following periods :

a)	Walls, columns and vertical faces		24 to 48 hrs
b)	Slabs (props left under)		3 days
c)	Beam soffits (props left under)	7 days	
d)	Removal of props under slabs		
	i) Spanning upto 4.5 m	7 days	
	ii) Spanning over 4.5 m	14 days	
e)	Removal of props under beams and arches		
	i) Spanning upto 6 m		14 days
	ii) Spanning over 6 m		21 days

For other cements, the stripping time shall be suitably modified in consultation with the Architect.

2. Where the shape of elements is such that the form work has re- entrant angles, the form work shall be removed as soon as possible after the concrete has set, to avoid shrinkage or cracking that might occur due to the restraint imposed.

3. For precast moulds, the stripping time shall be 24 hours. The mould may be lifted and stored in the yard within 24 hours to 48 hours as approved by the Architect.

4.6 Maintenance

It shall be responsibility of the contractor to protect, maintain and handover to next contractor / Employer in finished condition. No additional cost due to this shall be paid by the Employer providing and fixing inserts is part of this

a) On completion of concreting inserts shall be cleaned and required treatment such as oiling, greasing, covering with plastic/plywood boxes, painting etc. shall be carried out by the contractor to approval of the Architect. Inserts and pockets shall be protected from weathering/or damage in course of construction.

b) Opening and pockets shall be deshuttered with due care not to damage edges, falling of debris within pockets etc. Further all opening and pockets shall be preserved, secured

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against accident by covering, putting up guard rails, warning notice etc. as approved by the Architect. Guarding and protecting pockets shall be responsibility of the contractor at no extra cost to contract.

4.7 Cleaning / stacking

All formwork deshuttered shall be cleaned with a stiff wire brush to remove dust, grout, concrete etc. and if required maintained/repaired prior to being reused. Steel plates, props, frames, proprietary formwork system shall be oiled, greased to protect against rusting, weathering etc.

Plywood and timber form shall also be applied with preservative agent if to be kept for long time without use. It shall be protected against heat, rains etc.

4.8 Measurements

Wherever it is not specifically stated in description of the item that form work shall be paid for separately, the rate of R.C.C. item shall be deemed to be included in the cost of the form work.

1. Form work shall be measured as the area (in square meters) of shuttering in contact with the concrete.
2. It shall be measured to the nearest centimeter and the areas worked out corrected to second decimal places.
3. No deductions shall be made for openings upto 0.4 sq m in the plan.
4. Form work to secondary beams shall be measured upto sides of the main beams but no deduction shall be made from the form work of the main beam.
5. No deduction shall be made from the form work of column at intersection of the beam.
6. The quoted rate shall be applicable for all working conditions and at all heights, depths or lifts specified in the BOQ. The rate shall include the cost of materials and labour for various operations involved, such as,
   a) Splayed edges, notching, allowance for overlaps and plastering at angles, battens, centering, shuttering, strutting, propping, bolting, nailing, welding, casing, striking and removal.
   b) Filling to form stop chamfered edges or splayed external angles not exceeding 75 mm to footing and 25 mm to beams, columns and like.
   c) Temporary openings in the forms for pouring concrete and removing rubbish.
   d) Dressing with oil/approved emulsion/soap solution to prevent adhesion of concrete with shuttering.
   e) Racking or cutting
   f) Fixing inserts and openings at the correct line and level and any required stage to support the same at the directed height and place.

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g) Platforms, if any, required to keep check on form while the concreting is in progress.

h) Filling and making joints water-tight to the satisfaction of the PMC.

i) Cleaning the shuttering.

7. Inserts shall be measured by weigh or enumerated as specified in the BOQ.

8. Any work damaged through premature or careless removal of form shall be removed and reconstructed at the contractor's cost.

9. Holes for electrical conduits, hooks for fans and for plumbing are included in the price of items.

10. Precast units shall be measured shall be as detailed in BOQ including

a. Casting, lifting, curing and stacking

b. Lifting and placing in position at various slab levels including required staging and shuttering, and deshuttering for concreting.

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SECTION – 2 / A

MASONRY WORK - CONCRETE BLOCK

1.0 GENERAL

1.1 Indian Standards

Work shall be carried out to Indian Standards and Code of practices. In absence International standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference, guidance only. Any discrepancies / conflict noticed shall be directed to the Architect for his direction / approval. However as a general rule more stringent specification shall take precedence.

1.	IS 269	Specification for ordinary and low heat portland cement grade 33
2.	IS 383	Specification for coarse and fine aggregates from natural sources for concrete.
3.	IS 456	Code of Practice for plain and reinforced concrete.
4.	IS 2185	Specification for concrete masonry units Part – 1 Hollow and solid concrete blocks Part – 2 Hollow and solid light weight concrete blocks Part – 3 Autoclave Cellular (Aerated) concrete blocks
5.	IS 2572	Code of Practice for construction of hollow concrete block masonry.
6.	IS 6041	Code of practice for construction of autoclave cellular concrete block masonry
7.	IS 6441	Method of test for autoclaved cellular concrete products Part – 1 Determination of unit weight or bulk density and moisture content Part – 2 Determination of drying shrinkage Part – 4 Corrosion protection of steel reinforcement of steel reinforcement in autoclave cellular concrete Part – 5 Determination of compressive strength Part – 6 Strength, deformation and cracking of flexural members subject to bending short duration loading test Part – 7 Strength, deformation and cracking of flexural members subjected for bending – sustained loading test

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Part – 8 Loading tests for flexural members in diagonal tension

Part – 9 Jointing of autoclaved cellular concrete elements

8. IS 8112 Specification for ordinary portland cement grade 43.

9. IS 9103 Specifications for admixtures for concrete.

1.2 Quality assurance

1.2.1 Contractor shall procure block from approved concrete block manufacturer.

1.2.2 Block manufacturer should have minimum five years experience in manufacturing of blocks.

1.2.3 Manufacturer shall give certificates that blocks manufactured are of specified minimum crushing strength conforming to IS and are fully cured.

1.2.4 Manufacturer shall confirm materials used and method of casting, required plants, equipments meets conform to IS.

1.3 Submittals

1.3.1 Submit product literature from manufacturer

1.3.2 Certificate of independent laboratory for compressive crushing strength.

1.3.3 Samples of

- Concrete blocks of each size and type
- Ties
- Joint fillers
- Reinforcing joint fillers

2.0 MATERIAL

2.1 Cement

2.1.1 Cement used shall be ordinary Portland cement conforming to IS and shall be of grade 43 or 33.

2.1.2 It shall be received in bags of 50 kg or loose in tankers and each batch shall be accompanied with a test certificate of the factory. Also it shall be tested before use to ascertain its strength, setting time, etc. In case cement has been stored for over 3 months or for any reasons the stored cement shows signs of deterioration or contamination, it shall be tested as per the direction of the Architect prior to use in the works.

2.2 Aggregates

2.2.1 Aggregate shall conform to IS 383 requirements. Coarse aggregate shall be obtain from natural sources such as stone, gravel etc. crushed or uncrushed from approved quarries. Aggregate shall be hard, durable, and clean and free from adherent coatings. Grading shall be as indicated in IS 383. Fineness modules of the combined aggregates shall be between 3.6 and 4.

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Coarse aggregates shall be free from harmful materials such as iron, pyrites, coal, mica, shale or similar laminated material, clay, alkali, soft fragments sea shells, organic impurities etc. Impurities present within acceptable limits shall not adversely affects strength and durability.

2.2.2 Fine aggregates

Sand shall be hard, durable, clean and free from adherent coatings and organic matter and shall not contain any appreciable amount of clay. Sand shall not contain harmful impurities such as iron, pyrites, coal particles, lignite, mica shale or similar laminated material, alkali, and organic impurities in such form or quantities as to affect the strength or durability of concrete or mortar.

When tested as per IS 2386 part I & II, fine aggregate shall not exceed permissible quantities of deleterious materials as given in IS 383 table1 "Limits of deleterious materials (Aggregate)".

2.3 Water

2.3.1 Water used for mixing and curing shall be clean reasonably clear and free from objectionable quantities of self's, silts, alkalies, acids etc.

2.3.2 Water tested shall be in accordance with IS 3025. Maximum permissible limits of deleterious materials in water as given in IS 456.

2.4 Concrete block

Concrete blocks may be hollow (open or closed cavity) or solid and shall be referred to by its nominal dimension. The term nominal dimension includes the thickness of the mortar joint. Actual dimensions shall be 10 mm short of the nominal dimensions. Blocks shall be made in sizes and shapes to fit different construction needs. It includes stretcher, corner, double corner or pier, jambs, header, bullnose, partition block and concreted floor units. Nominal dimensions of concrete blocks shall be,

Length - 400, 500, or 600 mm

Height - 200 or 100 mm

Width - 100, 150, 200, 250, or 300 mm

Maximum variations in length shall be 5% in length and 3% in width and height.

Face shells and webs shall not be less than the values given in IS 2185 Part I – Table 1 "Minimum face shell and web thickness".

2.4.2 Concrete shall be mixed in the mechanical mixer. Blocks shall be moulded, laid and compacted with automatic machines. No hand/manual compaction shall be permitted unless approved by the Architect in writing for special blocks. Care shall be taken to see that the mix is placed in layers and each layer thoroughly tamped until the whole mould is filled up. Blocks shall be protected until they are sufficiently hardened to permit handling without damage.

Blocks shall be cured in the curing yard by keeping them continuously moist for at least 14 days. Steam-cured blocks shall be preferred. Cured blocks shall be allowed to dry for a period of 4

weeks before being used. The blocks shall be allowed to complete their initial shrinkage before they are laid in the wall.

2.4.3 All blocks shall be sound and free of cracks or other defects. For exposed construction face or faces shall be free of chips, or other imperfections, and the overall dimensions of the blocks shall be in accordance to tolerance as specified.

2.4.4 Blocks shall be considered as per IS if requirements of conditions mentioned in 11.2 to 11.5 of IS 2185 (Part I) are satisfied.

1. The number of blocks with dimensions outside the tolerance limit and/or with visual defects, among those inspected shall not be more than two.
2. Density and compressive strength shall be greater than or equal to the minimum limit specified in table 2 of IS 2185 (part I) "Physical requirements (Concrete blocks)".
3. Drying shrinkage shall not exceed 0.1 percent.
4. Water absorption shall not be more than 10 percent by mass.

2.5 Light weight blocks

2.5.1 Light weight cement concrete blocks as manufactured by M/s BILT or equivalent approved. Blocks are manufactured under patent and brand. Blocks sizes are

a) 650 x 240 x 100 mm
b) 650 x 240 x 150 mm
c) 650 x 240 x 200 mm

2.5.2 Blocks should have minimum crushing strength 15 Kg/Sqcm for 100mm thick blocks and 30 Kg/Sqm for 150mm and 200mm thick blocks

2.5.3 Block shall be manufactured conforming to IS 2185 Part-III.

2.5.4 All blocks shall be sound and free of cracks or other defects. For exposed construction face or faces shall be free of chips, or other imperfections, and the overall dimensions of the blocks shall be in accordance to tolerance as specified.

2.6 Admixtures

Additives or admixtures may be added to the cement or concrete mix conforming to the following Indian Standard specifications.

1. IS 9103 Specifications for admixtures for concrete.
2. IS 3812 Specification for fly ash for use as pozzolana and admixture.
3. IS 2645 Specifications for integral water proofing compound.

Other additives or admixtures not being governed by Indian Standards shall be tested and checked that the same are not detrimental to durability. Any usage shall only be after the approval of the Architect.

2.7 Joint Fillers

Bituminous impregnated, premoulded joint filler board shall be of approved quality, manufacturer and conform to IS 1838 part I.

2.8 Metal reinforcement

Expanded metal used shall comply IS 412.

2.9 Delivery / Storage

2.9.1 Load, unload deliver, store all concrete blocks with due care, at site to be free from damage, dirt, intrusion of foreign materials etc.

2.9.2 Store all concrete block units on raised solid platforms.

2.9.3 Protect block from any excess of weather conditions.

3.0 SCOPE OF WORK

Provide, construct with specified strength, quality concrete block masonry conforming to IS Code of Practices, approved method of statement by Architect, including providing leveling course PCC 1:3:6 to adjust with full size blocks, approved mix of mortar, construction and expansion joint fillers, metal reinforcement wherever required of type, size and shape, providing special bond adjusting blocks, reinforced patti (course runner) beams of concrete M 15 required double – legged scaffolds etc complete.

4.0 WORKMANSHIP

4.1 Concrete blocks shall not be wetted like brick masonry prior to use. In total dry climate top and sides may be slightly moistened to avoid absorption of water from mortar.

4.2 Concrete block work shall be laid in English bond. Joints shall not be bigger than 10 mm and will be perfectly horizontal and vertical. Joints shall be raked 10 mm deep while mortar is green.

4.3 Cut blocks shall not be used. Special solid precast blocks at site shall be cast well in advance to be used as spacers and to adjust breaking of vertical joints.

4.4 Cracks in block masonry are due to shrinkage or expansion of blocks or due to load settlement, thermal expansion or changes in moisture content in the structural members enclosing the block walls. The following measures are recommended to prevent formation of cracks.

a. While curing, the block masonry should be lightly sprinkled with water and not made excessively wet.

b. Expansion joints shall be provided in walls exceeding 30 m in length.

c. Reinforcement should be provided in the bed joints in block work, one course above and one course below windows and above doors in order to distribute the shrinkage/ temperature stresses occurring at the corners of openings, more uniformly throughout the walls.

d. In framed structures, erection of partition and panel walls should be delayed to take care of deformations due to structural loads.

e. Partition walls should be suitably reinforced in lower courses to strengthen against excessive deflections of floor slabs and should be separated from the ceiling by a layer of resilient material. Joint shall be carried out in plaster or any other finish.

4.5 Where required damp proof course layer shall be laid as specified.

4.6 Exposed faces and corners of masonry damaged during construction shall be removed and repaired as acceptable to Architect.

4.7 Scaffolding:

Scaffolding independent of block work i.e. Double legged scaffolding shall be provided. It should be tied to block work or structure at suitable intervals in both directions. Two rows of planks shall be provided all around. Planks shall be at least 50 mm thick and well-tied to scaffolding. Railing to the outside face shall be provided. While erecting scaffolding, the following points must be noted and closely followed :

1. Minimum number of holes in the horizontal direction.
2. No holes near the skew backs of arches.
3. Scaffolding must be sound and strong and easy to maintain.
4. Holes left must be closed while finishing the plaster.

4.8 Raking back shall be carried out at an angle not steeper than 45 degrees in case all the block work is not raised together.

4.9 The block should be of full height and no cut pieces shall be allowed. PCC levelling course shall be laid to fill up the gap.

5.0 **MEASUREMENT**

Hollow or solid cement concrete block work shall be measured in square meter for the specified width (thickness of masonry).

Items to include followings -

a. Material and labour, for the completion of items as specified including any centering, shuttering, curing etc.

b. Raking out of joints.

c. Preparing the tops and sides.

d. Forming and preparing expansion, contraction or construction joints as detailed above or specified in the BOQ or drawings.

e. Making holes, openings, etc. for outlets, embedding down take pipes, etc. wherever necessary during construction, and finishing exposed surfaces as per instruction of the Architect.

f. Curing and protection as specified.

g. Making holes, openings, outlets, etc. embedding pipes, ends of beams, joists, slabs, trusses, sills, etc. whatever required during construction and neatly finishing the exposed surfaces and opening as per instructions of the Architect.

h. Work at all height, leads, lifts etc.

SECTION – II/ B
MASONRY WORK - STONE MASONRY

1.0 INDIAN STANDARDS

Indian standards to be followed are :

All relevant standards as specified elsewhere in this volume are applicable.

1.	IS 1121	Methods of test for determination of strength properties of natural building stones.
	Part 1	Compressive strength
	Part 2	Transverse strength
	Part 3	Tensile strength
	Part 4	Shear strength
2.	IS 1124	Methods of test for determination of water absorption apparent specific gravity and porosity of natural building stone.
3.	IS 1127	Recommendations for dimensions and workmanship of natural building stones for masonry work.
4.	IS 1597	Code of Practice for Part 1 construction of stone masonry : Rubble stone masonry
5.	SP 27	Handbook of method of measurement of building works.

2.0 MATERIAL

2.1 Cement

2.1.1 Cement shall be ordinary Portland Cement conforming to IS and of grade 43.

It shall be received in bags of 50 kg and each batch shall be accompanied with a test certificate of the factory. Also it shall be tested before use to ascertain its strength, setting time, etc. In case cement has been stored for over 6 months or for any reasons the stored cement shows signs of deterioration or contamination, it shall be tested as per the direction of the Architect prior to use in the works.

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2.1.2 Cement shall be stored in such locations so as to prevent deterioration due to moisture dampness. A dry and water proof shed shall be best suited for this. Bags shall be stacked on rigid water-proof platforms about 15 to 20 cm clear above the floors and 25 to 35 cm clear or away from the surrounding walls. A maximum high stack of 12 bags is permitted. Stacks shall be so arranged that the first batches are used first, and (FIFO) that they permit easy access for inspection and handling.

2.2 Fine aggregate

2.2.1 Natural sand deposited by stream or glacial agencies as a result of disintegration of rock is the best form of fine aggregate. The fine aggregate shall conform to following standards.

(i)	For plain and reinforced concrete	IS 383 Specification for coarse and fine aggregates from natural sources for concrete.
(ii)	Mortar and grout	IS 2116 Specification for sand for masonry mortars.
(iii)	For plastering	IS 1542 Specification for sand for plaster (Class A grading).

2.2.1.2 Sea sand should not be used unless approved by the Architect. If approved, the required treatment shall be done at the contractor's cost.

2.2.2 Sand shall be hard, durable, clean and free from adherent coatings and organic matter and shall not contain any appreciable amount of clay. Sand shall not contain harmful impurities such as iron, pyrites, coal particles, lignite, mica shale or similar laminated material, alkali, and organic impurities in such form or quantities as to affect the strength or durability of concrete or mortar. Also it should not contain any material liable to attack the steel reinforcement.

2.2.2.1 When tested as per IS 2386 Part I and Part II, fine aggregate shall not exceed permissible quantities of deleterious materials.

2.2.2.2 Fine aggregate shall be thoroughly washed at site with clean fresh water such that the percentage of all deleterious material is within the permissible limits laid down.

2.2.3 Aggregate shall be stored in such a way that it does not get mixed with mud, grass, vegetables and other foreign matter. The best way is to have a hard surface platform made out of concrete, bricks or planks. It should be to the approval of the Architect.

2.3 Water

2.3.1 Water used for mixing and curing shall be clean, reasonably clear and free from objectionable quantities of silt, oils, alkalis, acids, salts so as not to weaken mortar, or concrete or cause efflorescence or attack the steel in RCC While curing. It shall be free of elements, which significantly affects the hydration reaction or otherwise interferes with hardening of concrete

during curing, or those elements which produce objectionable stains or deposits. Potable water is generally satisfactory but it shall be tested prior to use in the works.

2.3.2 Water tested shall be in accordance with IS 3025. Maximum permissible limits of deleterious materials in water as given in IS 456.

2.4 Stone

2.4.1 Stone to be used in masonry shall be trap, granite, quartzite, gneiss, laterite or any other type of good stone as specified in the BOQ or as approved by the Architect. For all practical purposes good trap, granite, quartzite or gneiss shall be used unless specified otherwise in the BOQ.

2.4.2 All stones shall be free from defects like cavities, cracks, sand holes, flaws, injurious veins, patches of loose or soft materials, etc. The percentage of water absorption shall generally not exceed 5%.

2.4.3 The strength of building stones should be adequate to carry the loads imposed. Table 1 of IS 1597 gives the minimum crushing strength of approved stones. Minimum strength shall be 200 kg/sqcm unless specified otherwise.

2.4.4 Stones used shall be small enough to be lifted and placed by hand. Length of the stones shall not exceed three times their height, and the breadth of the base shall not be greater than three-fourths of the thickness of wall or less than 150 mm. The height of stones for rubble masonry may be upto 300 mm.

2.4.5 Stones with round faces shall not be used.

2.5 Metal fittings

2.5.1 Metal fittings shall be non-corrosive/non-ferrous. Use of iron clamps and similar fittings for embedding into the masonry work shall be avoided. If permitted by the Architect, they shall be treated with anti-corrosive treatment.

2.6 Mortar

2.6.1 The cement, sand and water used shall meet the Indian Standards specifications.

2.6.1.1 Mortars shall be prepared by mixing fine graded aggregate with cement in the proportion specified for respective items of work as detailed in the BOQ. Mixing of mortars shall be done by mechanical mixers only. Hand mixing may be permitted in specified cases on the written permission of the Architect.

2.6.1.2 Mortars shall be specified by proportion. Volumetric mixing shall be based on dry volumes of each ingredient. For convenience, measurement shall correspond to volume of one cement bag i.e. 0.035 cu m. Boxes shall be of size 40 X 35 X 25 cm. These shall be marked as mortar mixing boxes by red paint and shall be used throughout the contract. Hand mixing or mechanical mixing proportions shall be done with the use of these boxes.



2.6.1.3 Cement mortar shall be prepared by mixing cement and sand in specified proportions. Proportioning shall be carried out as detailed above. Sand shall be added suitably to allow for bulkage if required. Bulkage shall be determined as specified in IS 2386 Part III. Cement and sand added to mixer shall be thoroughly mixed and water shall be added to it gradually. After addition of water the mixer shall run for a minimum of 3 minutes. The mortar mixed shall be consumed within 30 minutes of its mixing.

3.0 WORKMANSHIP

3.1.1 Dressing and shaping of stone shall be done before being used in masonry. Quality of dressing and shaping shall be as approved by the Architect.

3.1.2 All necessary chases for joggles, dowels and cramps should be formed in stone beforehand.

3.1.3 Sufficiently wetted, cleaned stone shall be laid to lines, levels, curves and shapes as shown in the plans. Stones shall be laid on their broadest face in mortar and settled carefully in place with a wooden mallet. Clean chips and spells, carefully selected to fit in the spaces shall be wedged to avoid thick beds or joints of mortar.

3.2 All connecting walls shall be raised together. In case one part is required to be left behind, raking back at an angle of 45 degrees or less shall be done.

3.3 It is imperative to adjust levels right at the start to achieve correct levels of window sill, roof, etc. But as this is quite difficult to achieve, it shall be part of the stone masonry work to provide cement concrete sill of mix in a ratio of 1:4:8 (1 cement, 4 sand and 8 20 mm graded aggregate) of 100 to 150 mm thickness in consultation with the Architect.

3.4 Maximum thickness of joint shall be 20 mm for random rubble and 10 mm for course. Stones shall be set and laid by wooden hammer (mallet) and voids, if any, packed and consolidated by stone chips. Chips used shall not be more than 15% by volume of masonry.

3.5 Stones of full width of wall thickness shall be provided at every 600 mm centre to centre in each layer and staggered. For walls thicker than 600 mm two through stones overlapping each other at a minimum of 150 mm shall be placed.

3.6 The work shall be in perfect plumb or battered as specified.

3.7 Corner stones shall be well-dressed and chiseled. These shall be laid header and stretcher alternate. They shall not be smaller than 0.025 cu m and 300 mm in length. Further it must be noted that 25% of the above shall not be shorter than 500 mm in length.

3.8 Jambs shall be made from dressed corner stones.

3.9 Work of the day shall be raked to a depth of 20 mm while the mortar is green and cleaned with a coired string brush or wire brush. Stone surfaces shall be free of mortar or cement coats.

3.10 Vertical joints shall be staggered.

3.11 At angular junctions, stones at each alternate course shall be well-bonded into the respective courses of the adjacent wall.



3.12 Masonry construction with very thin faces, tied up with occasional through stones or filled up with dry packing or small-size aggregates shall be strictly prohibited.

3.13 Storey rods showing the heights of all doors and windows and other necessary information should be used at the time of construction of masonry.

3.14 Door and window frames shall be fixed with hold-fast of adequate size and strength. Iron hold-fast shall be treated with anti- corrosive coating and timber to prevent attack from insects and termites. In addition, hold-fast shall be securely embedded in chases with cement-concrete in a ratio of 1:2:4. Frames shall preferably be fixed simultaneously as work proceeds.

4.0 SCAFFOLDING

4.1 Scaffolding, independent of masonry work i.e. double scaffolding, shall be provided. It should be tied to masonry work or structure at suitable intervals in both directions. Two rows of planks shall be provided all around. These shall be at least 50 mm thick and well-tied to the scaffolding. Railing to outside faces shall be provided. While erecting scaffolding, the following points must be noted and closely followed.

1. Minimum number of holes in horizontal direction. Holes shall be formed by omitting header.
2. No holes in pillars under 1 metre in width.
3. No holes near the skew backs of arches.
4. Scaffolding must be sound and strong and easy to maintain.

4.2 Protection and Curing

Green work shall be protected from rains by suitable covering. Masonry in cement or composite mortar shall be kept constantly moist on all the faces for a minimum period of seven days. The top of masonry shall be left flooded with water at close of the day. Care shall be taken not to disturb or wash out green mortar.

In case of stone work in lime mortar, curing shall commence two days after laying of masonry and shall continue for the next seven days.

5.0 TYPES OF STONE MASONRY

5.1.1 Uncoursed / Random Rubble Masonry

Masonry constructed by selecting stones from quarry, more or less at random, of all sizes and shapes. Cutting of stones restricted to remove inconvenient corners with scabbling or spelling hammer.

5.1.2 Construction

1. Individual stones shall have thickness and width of not less than 150 mm and length not less than 1.5 times its height. Stones shall be dressed with a mason's hammer by knocking off weak corners and edges.

Face stone shall be so dressed that bushing on the exposed face shall not project by more than 40 mm from the general wall surface. In case plastering is to be done, projection shall be limited to 19 mm and depression to 10 mm.

50% stone shall be 0.010 cu m (10 litres) in walls upto 500 mm. Walls thicker than 500 mm shall have 50% stone bigger than 0.015 cu m (15 litres).

2. Bond or through stones shall be 2 pieces (nos.) per sq m, face area shall be 0.03 sq m and for full width of masonry for walls upto 600 mm stones shall be marked distinctly.

3. For massive work with a width of a metre and above, vertical headers 450 mm long or with a depth of two courses whichever is more shall be provided at the rate of one for every sq m of area in the plan.

4. Quoins (corners) shall be dressed square to the face and rough tooled to 100 mm from face, and vertical joints dressed to 40 mm from face. No quoins shall be smaller than 0.025 cu m in volume and they shall also not be less than 300 mm in length, 25% of them being not less than 500 mm in length.

5. Hearting stone shall not be less than 150 mm in any direction. In walls upto 500 mm a minimum of 30% stone shall be 0.010 cu m (10 litres). For thicker walls minimum 30% stone shall be 0.015 cu m (15 litres).

6. The jambs shall be made with stones specified for quoins except that stones provided on the jambs shall have their length equal to the thickness of the wall. For walls upto 600 mm, a line of headers shall be provided as specified for bond.

7. A plum stone at about 900 mm intervals shall be provided.

8. Stones shall be laid with or without courses as specified. Quoins shall be laid header and stretcher alternatively. Laying shall be carefully done to form neat and close joints. Face stone shall extend and bond well in the back. These shall be arranged to break joints.

5.1.3 Measurements shall be in cubic meters.

5.2.0 Coursed Masonry

Course walling shall be built in courses which may vary in height from 150 mm to 400mm but the stones in any one course shall roughly be square and of the same height.

5.2.1 Construction

1. Stones received from quarry shall be dressed to have the vertical and horizontal sides perfectly straight, parallel and at right angles to adjacent sides. Bushing on the face shall not project more than 40 mm. Beds and tops shall be tooled at least 100 mm from the face. Faces of vertical joints shall be square to the face and rough tooled at least 50 mm from the face.

2. Stones shall be longer in breadth than in height and shall run back into the masonry not less than 1.5 times the height. 30% of the stones shall have tailing twice their height.

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Further 30% of these face stones shall not be less than 0.02 cu m or 20 litres. The height shall not be less than 150 mm or as specified in the pattern in the drawing.

3. Hearting stones shall consist of flat bedded stones, carefully laid on their proper beds in mortar, chips and spells of stone, avoiding excess use of mortar and hollow spaces in masonry. These shall be limited to 10% in the first sort and 15% in the second sort. 30% of the stones shall not be less than 0.010 cu m or 10 litres for walls 500 mm or less in thickness. For walls thicker than 500 mm, 30% of them shall not be less than 0.015 cu m or 15 litres.

4. Quoins (corner) stones shall be twice their height or minimum 440 mm long whichever is more and shall be of the same height as that of the course. They shall be laid alternately as stretcher and header.

5. Through stones shall be a minimum 450 mm long and shall be 180 mm centre to centre for every course. They shall be about 0.05 sq m in face area and 0.03 sq m in average cross sectional area. For thicker walls (above 600 mm) they shall over-lap by at least 150 mm.

6. Thickness of joint shall be maximum 10 mm. When pointing is to be done, joints shall be raked to a depth of not less than 10 mm while the mortar is green.

5.2.3 Measurement shall be in cubic meters

5.2.4 Items to include the cost of the followings, irrespective of whether it is stated in the BOQ or not.

a) Material and labour for proper execution as per specification and site requirement including temporary erections like scaffolding, centering, shuttering and removal of the same. Curing and protection shall also be included as directed.

b) Racking out of joints and cleaning of stone surfaces.

c) Preparing tops and sides of existing walls.

d) Bond stones.

e) Making grooves and rebates in the adjoining work for fixing jali.

f) Extra labour involved in dressing of corner stones and jamb- stones wherever required.

g) Making holes, openings, outlets, etc. embedding pipes, ends of beams, joists, slabs, trusses, sills, etc. whatever required during construction and neatly finishing the exposed surfaces and opening as per instructions of the Architect.

* * * * *

SECTION - 3

PLASTERING WORK

1.0 GENERAL

1.1 INDIAN STANDARDS

Indian and other international standards followed for this section shall be as listed below. In case any discrepancies or ambiguities noticed it shall be brought to notice of the Architect and clarification/confirmation sought. His decision shall be final. However as general rule more stringent specifications shall be followed.

1.	IS 383	Specification for coarse and fine aggregates for natural sources for concrete.
2.	IS 412	Specifications for expanded metal steel sheets for general purposes.
3.	IS 1489	Specification for Portland pozzolana cement.
4.	IS 1542	Specifications for sand for plaster.
5.	IS 1661	Code of practice for application of cement and cement-lime plaster finishes.
6.	IS 2402	Code of practice for external rendered finishes.
7.	IS 2645	Specifications for integral cement water proofing compound.
8.	IS 6452	Beads for internal plastering and dry lining specification for galvanized steel beads.
9.	IS 8112	Specification for 43 grade ordinary Portland Cement.

1.2 Quality Assurance

1.2.1 All materials used shall be tested as per standards and samples approved by Architect.

1.2.2 GI beads shall be of approved quality.

1.2.3 Metal reinforcement used shall be as specified and conforming to IS.

1.3.0 Submittal

1.3.1 The Contractor shall submit product literature with samples for the approval of the Architect.

1.3.2 Samples

Samples of following products shall be submitted for approval samples shall be minimum 300 mm long and 300 mm square. Minimum 3 nos. of each samples shall be given.

1. GI beads
2. GI Chicken mesh.
3. GI metal reinforcement.

1.4 Mockups

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Prior to start of work contractor shall prepare panels for each type of finish and application required to verify samples submitted and to observe / test aesthetic effects, quality of material and workmanship.

Mockup shall comply with

a) Demonstrate the proposed range of aesthetic effect and workmanship.

b) Erect mockup of full size and thickness including joints, supporting system if any, using proposed material.

c) Notify the Architect 7 days in advance of date of mock to be ready.

Retain mockup till ordered to be removed by the Architect.

2.0 MATERIALS

2.1 Cement

2.1.1 Cement shall be ordinary Portland Cement conforming to IS and shall be of grade 43 or Portland pozzolana cement as approved by the Architect.

It shall be received in bags of 50 kg and each batch shall be accompanied with a test certificate of the factory. Also it shall be tested before use to ascertain its strength, setting time, etc. In case cement has been stored for over 2 months or for any reasons the stored cement shows signs of deterioration or contamination, it shall be tested as per the direction of the Architect prior to use in the works.

2.1.2 Cement shall be stored in such locations so as to prevent deterioration due to moisture dampness. A dry and water proof shed shall be best suited for this. Bags shall be stacked on rigid waterproof platforms about 15 to 20 cm clear above the floors and 25 to 35 cm clear or away from the surrounding walls. A maximum high stack of 12 bags is permitted. Stacks shall be so arranged that the first batches are used first, and (FIFO) that they permit easy access for inspection and handling.

2.2 Water

2.2.1 Water used for mixing and curing shall be clean, reasonably clear and free from objectionable quantities of silt, oils, alkalies, acids, salts so as not to weaken mortar. It shall conform to IS 456.

2.2.2 Water tested shall be in accordance with IS 3025.Maximum permissible limits of deleterious materials in water as given in IS 456 Table1 "Permissible Limits for Solids (in water)".

2.3 Coloured cement may be either ready-mixed material or may be obtained by mixing pigments and cement at site. The pigments to be mixed with cement shall conform to Appendix "A" of IS 2114 code of practice for laying in-situ Terrazzo Floor Finish.

2.4 Sand shall conform to IS 1542 specification for sand for plaster. For white or coloured renderings, only quartz or silica sand shall be used. For textured finishes produced by treatment of freshly applied final or finishing coat with a tool, coarser, particles used shall be screened through 3.35 mm IS sieve or 2.36 mm IS sieve. For torn texture a slightly larger portion of

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material coarser than 4.75 mm IS sieve shall be used.

2.5 Aggregate shall conform to IS 383.

2.6 Integral water proofing compound shall conform to IS 2645 (specification for integral water proofing compound).

2.7 Neeru shall be obtained by mixing lime putty and sand in equal proportions and chopped jute @ 4 kg/cum of mortar and ground to fine paste in the chemical grinder to give fine butter-like paste. Approved ready-made neeru available may be permitted if desired by the contractor after testing at site.

2.8 Fibrous materials

Certain natural fibers, such as flax, sisal, manila, jute hemp, and coconut fibers may be used for incorporation in the mortar. They shall be clean, dry and free from oil.

2.9 Expanded metal

Expanded metal used as background for rendering shall comply with requirements of IS 412.

2.10 GI Chicken Mesh

Chicken mesh of 20 G with opening of 25 x 25 mm hot dipped galvanized shall be provided over junctions of two dissimilar material about 150 mm wide as directed by the Architect.

2.11 Beads

2.11.1 Zinc coated steel for exterior work shall be used. Nominal size to be provided are 5 mm bead with 60 mm minimum expanded metal wings as manufactured by M/s Expamet bead ref. no. 558 or Rakesh & Associates, Andheri (W), Mumbai. Tel no.6341284 or equal approved.

2.11.2 Casing beads

Zinc coated steel for exterior work shall be used. Nominal size shall be 5 mm return square edged bead with 75 mm wide expanded metal wing, depth to suit plaster thickness. Gauge and size shall be as recommended by the approved manufacturer. M/s Expamet plaster stop ref. no. 561 and 566 Rakesh & Associates, Andheri (W), Mumbai. Tel no.6341284 or equivalent shall be used.

2.11.3 Expansion joint beads

Zinc coated steel for exterior quality with adjustable openings size as shown in drawings and manufactured by expamet or equivalent approved shall be used. Gauge and size shall be as per recommendations of manufacturer.

2.11.4 Special Beads

Zinc coated steel beads of sizes and shape as shown in drawings to suit site conditions shall be used. Gauge thickness and other details shall be as per recommendations of approved manufacturer.

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2.12 Bonding Agent

Chemical bonding adhesive of approved chemical admixture manufactures shall be used as per recommendations of manufacturer over concrete surface.

2.13 Binder

Fiberglass fibers free of dirt, oil, grease, diterious material or other impurities about 12 to 50 mm long of approved manufacturer in proportion as recommended by manufacturer shall be used to achieve dense mix as per instruction of the Architect.

2.14 Gypsum plaster

It is ready made proprietary Gypsum plaster mix of M/s. Gyproc or equivalent and shall be as per IS 2547 Part-II. It is consisting of Gypsum hemihydrate formulated with specially additives to control working and setting characteristics. It contains lightweight exfoliated aggregates to improve workability, coverage and application. It shall have initial setting time of 15-20 minutes and final setting time of 20-25 minutes. Material shall be procured from approved manufacturer.

3.0 SCOPE OF WORK

3.1 Plastering work scope shall include preparing surfaces, applying plaster, providing reinforcement such as beads, chicken mesh, scaffolding, curing to correct line, level and plumb within acceptable tolerances. Work may be in single coat or multiple coats as specified.

3.2 Finish shall be as specified and approved by Architect.

3.3 Finishing of grooves, jams, cills, pattas, motifs, grooves, etc. shall be part of the work.

3.4 Work shall include required material and at all locations with required leads, lift and height.

- Internal single coat cement sand mortar plaster minimum 12 mm thick.
- Internal to ducts double coat cement sand mortar plaster minimum 18 mm thick including waterproofing compound.
- Gypsum plaster single coat minimum 15 mm thick.
- External double coat cement sand plaster minimum 25 mm thick including waterproofing compound.

4.0 WORKMANSHIP

4.1 Mortar

4.1.1 Mortars shall be prepared by mixing fine graded aggregate with cement, the lime or a combination of these in the proportion specified for respective items of work as detailed in the BOQ. Mixing of mortars shall be done by mechanical mixers only.

4.1.2 Mortars shall be specified by proportion only and not by strength. Volumetric mixing shall be based on dry volumes of each ingredient. For convenience, measurement shall correspond to volume of one cement bag i.e. 0.035 cum. Boxes shall be of size 40 x 35 x 25 cm. These shall be

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marked as mortar mixing boxes by red paint and shall be used throughout the contract. Mechanical mixing proportions shall be done with the use of these boxes.

4.1.3 Cement mortar

Cement mortar shall be prepared by mixing cement and sand in specified proportions. Proportioning shall be carried out as detailed above. Sand shall be added suitably to allow for bulkage if required. Bulkage shall be determined as specified in IS 2386 Part III. Cement and sand added to mixer shall be thoroughly mixed and water shall be added to it gradually. After addition of water the mixer shall run for a minimum of 3 minutes. The mortar mixed shall be consumed within 30 minutes of its mixing.

4.2 Application

4.2.1 Preparation of surfaces

a) Surfaces to be plastered must be clean and free from dust, loose material, oil, grease, mortar droppings, sticking of foreign matter, traces of algae, etc. It is very important to ensure that there should not be any chance of the plaster getting debonded due to presence of materials harmful for bonding.

b) Raking out of joints is expected to be carried out along with masonry but it should be checked thoroughly so as to receive good key.

c) Joints shall be racked and grouted / pointed with square crushed aggregates.

d) Apply rust removal to metal surfaces which are in contact with plaster.

e) Actual plastering shall be undertaken only on the approval of the Architect. Plaster work should follow the steps mentioned below :

- Surface must be thoroughly cleaned, hacked and applied with approved chemical adhesive over concrete surface to receive scratch coat. Joints shall be racked and grouted / pointed with square crushed aggregates.
- Plaster area must be provided with level dabs or spots allowing working and checking with 2-3 m straight edge. Depth of plaster must not be less than 20 mm at any point.
- Fix corner / stop / special beads at locations shown in drawing or required by Architect or suggested by bead manufacturer.
- Corner beads to true vertical plumb, level and of longest length to minimize joint shall be set at all external corners.
- Plaster stops shall be fixed to correct line, level and plumb where plaster terminates or abuts with other surfaces.
- Expansion joint beads shall be provided to correct line, level and location and shall be of specified size only. It shall be set exactly as detailed in drawing.
- Required concealing services must be completed and tested.
- No further cutting of masonry must be required.
- Repairs carried out to masonry or concealing work must be cured and dry.

- Surface must be sufficiently damp.
- Plaster dabs are checked for plumb and level by the Architect or his representative.
- Joints, concealing and repairing areas must be covered with GI mesh as per the Architect's instruction.

f) Walls should be sufficiently damp prior to plastering. Water from plastering mortar must not be absorbed by masonry under any condition.

g) Any unavoidable projections in masonry and concrete surfaces shall be chiseled back. Care shall be taken that surrounding surfaces are not damaged and reinforcement is not exposed.

4.2.2 Application of Plaster

a) All concrete surfaces shall be applied with 5 mm thick skim coat by 1st applying bonding agent as recommended by the manufacturer. Surface shall be cured for 3 days. Joints shall be racked and grouted / pointed with square crushed aggregates.

b) The method of application is also important and hence it is recommended that the mix be thrown on the surface rather than stuck with trowel. This increases the adhesion.

Apply 12-15 mm thick full depth coat material over skim / scratch coat with pressure to form full grip

c) Plaster shall be leveled and lined by aluminium hollow section, 2-3 m long. (This will give even and leveled surface). There shall not be more than 2 mm difference in level when checked with 3 m straight edge. It is important that enough pressing and beating is done to achieve compact filling of joints and that the area is fully compacted.

d) Corners, external or internal, shall be finished along with final coat. It is advisable to have rounded corners.

e) Finishing of plaster may be carried out with wooden float (randhas) or trowel led smooth with sheet metal trowels as specified. Care shall be taken to avoid excessive troweling and overworking of the wooden float.

f) All corners, internal or external, shall be truly vertical or horizontal. These shall be finished with a proper template to achieve best workmanship for rounding and chamfering as specified or directed.

4.2.3 Plaster shall be cut to correct horizontal or vertical line at the end of the day or if work requires to be suspended for any reason.

4.2.4 It is advisable to limit the area of plaster to 15 sq. m to avoid cracks due to thermal movements of dissimilar material in contact, it is advisable to provide joints treated with groove or any other detail as suggested by the Architect. These joints if not specified shall be treated with 150 mm wide reinforcing chicken mesh (approved by the Architect) fixed over joints by GI nails and the area plastered.

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4.2.5 Plaster shall be cured for 14 days by wet curing except in neeru finish plaster. During this period plaster shall be protected from exposure to extremes of temperature and weather.

4.2.6 Scaffolding should be rigid, allowing free and safe movement on the platform and it should be at sufficient distance or height from the working areas. Scaffolding with railing gives more confidence to workers and improves the quality of work.

4.3 12 mm thick internal plaster

Single coat cement-sand plaster with cement-sand mix in proportion of 1:4 shall be carried out over the entire area as detailed above. This shall be finished just with wooden float to give the best smooth surface possible. This may be for internal or external areas. Thickness may be from 10 to 15 mm maximum or as specified in the item or drawing.

4.4 18 to 25 mm ordinary cement sand plaster

This is the same as for the 12mm thick single coat plaster except that this shall be carried out in two coats. Maximum thickness of the undercoat shall be 12 mm and balance in the second finishing coat. All operations remain the same and are as detailed in Clause 3.0 of this section.

4.5 Cement finished plaster

This shall be carried out in the same manner as in Clause 4.3 and 4.4 of this section for specified thickness in single or double coat. Then it shall be finished uniformly over the entire area with a paste of neat cement when the plaster has just hardened and finished smooth with a steel trowel. It shall be worked over again to achieve a smooth leveled surface. Quantity of cement applied shall be about 1 kg/sqm.

4.6 Gypsum Plaster

4.6.1 M/s. Gyproc or other readymade Gypsum plaster mix shall be as per IS 2547 Part-II. Approved brand shall be used.

4.6.2 The background to be plastered should be thoroughly brushed with broom to be free from all loose particles and dust. Wash and clean traces of mould oil.

4.6.3 Recommend usage of Gyproc® BOND IT, a high-performance bonding agent to eliminate hacking.

4.6.4 It is recommended to pre-wet the surface before application so as to achieve more spread and higher coverage.

4.6.5 Mix gypsum plaster to water (not vice versa), use a mixing rod to mix the paste thoroughly.

4.6.6 Water to plaster ratio (1 part of water : 1.5 part of plaster) should be maintained to have good cohesive workable mix.

4.6.7 Prepare plaster mix as much as required depending upon the immediate scope of work.

4.6.8 Once the mix has begun to set, additional dry material should not be added, as performance properties of plaster will get altered, thus affecting workability, cohesiveness, adhesion and strength.

4.6.9 Avoid using a wet brush on to the finished surface, as that would leave permanent brush marks and spoil the surface.

4.6.10 A single coat should not exceed 13 mm in thickness. If at all thickness required is more than 13 mm, plaster should be applied in multiple coats.

4.6.11 After complete drying (which takes usually 72 hrs depending on the thickness and weather conditions), the plain smooth leveled surface is ready for painting.

4.6.12 It is also recommended to use Gyproc® Champion Putty on a plastered surface which smooth finish and prevent the paint form flaking.

4.7 External Cement Plaster

4.7.1 This shall generally be carried out on the outside face and exposed area of masonry work and concrete work. It shall be of minimum 25 mm thickness and shall be in two coats. The coat shall be CM 1:4 (1 cement: 4 sand) mixed with water-proofing compound 2% by weight of cement and applied as usual and surface shall be keyed.

4.7.2 The second coat shall be applied after 7 to 10 days and shall be of CM 1:4 (1 cement: 4 sand). Mortar shall be mixed with slightly coarse sand. Mix shall be worked over with 3 m gauge or wooden float to achieve a uniform surface.

5.0 MEASUREMENT

5.1.1 Plaster work shall be measured in square meter to the second decimal place.

5.1.2 Thickness of plaster shall be the average depth of plaster as specified. But if extra thickness occurs due to bad quality of bricks, stones or blocks or due to bad workmanship, the repairs required to be carried out shall be at the cost of contractor.

5.1.3
a) Grooves, pattas in continuation of large areas or plaster areas shall be considered as part of the plaster and not measured separately.

b) Isolated areas and width below 300 mm shall be specified and detailed separately in the BOQ and measured in running meter.

c) Ceiling plaster, including ribbed beam slab shall be measured in square meters.

d) Beams and columns in continuation of masonry shall be measured in square meter.

5.1.4 Jambs, sills, coves, cornices, etc. shall be a part of plaster and no separate payment shall be made towards these items.

5.1.5 Deduction

a) Deduction for an opening in plaster shall not be for area less than 0.5 sq m.

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b) In case the opening area is 0.5 sqm to 3.0 sqm, only 50% area shall be deducted from each face.

c) In case the width of door or window frames are equal to masonry, full area of opening shall be deducted.

d) In case of openings of area above 3 sqm each deduction shall be made for opening on each face and jambs, sofits, sills shall be measured.

5.1.6 Plaster to ceiling and walls shall be measured separately if specified in the BOQ.

5.2.1 Description of item in the BOQ, unless otherwise stated, includes, wherever necessary, conveyance and delivery handling, unloading, storing, fabrication, hoisting, all labour for finishing to required shape and size, setting, fitting and fixing in position, straight cutting and waste, return of packings and other incidental charges.

5.2.2 Levels and heights shall be as indicated in the BOQ.

5.2.3 Preparation of surface shall be as approved by the Architect.

5.2.4 Trimming off the projections on masonry shall be included in the price.

5.2.5 Scaffolding and working platform shall be included in the price.

5.2.6 Materials as detailed and as required to complete item as specified shall be included in the price.

5.2.7 Curing of plaster shall be included in the price.

5.2.8 Cleaning of adjacent areas, windows, door frames, etc. Including masonry surface in exposed masonry work, shall be included in the price.

5.2.9 Forming grooves for joints between beams/columns and masonry etc. shall be included in the price. Any special treatment if detailed shall be measured separately and billed in BOQ.

5.2.10 Providing and fixing chicken mesh at junction of R.C.C., brick work, edges, corners, chiseled and repaired brick work prior to plaster over concealed conduit, etc. shall be as directed by the Architect. It shall be considered as part of item and no separate charge will be payable.

6.1 Description of item in the BOQ, unless otherwise stated, includes, wherever necessary, conveyance and delivery handling, unloading, storing, fabrication, hoisting, all labour for finishing to required shape and size, setting, fitting and fixing in position, straight cutting and waste, return of packings and other incidental charges.

6.2 Levels and heights shall be as indicated in the BOQ.

6.3 Preparation of surface shall be as approved by the Architect.

6.4 Trimming off the projections on masonry shall be included in the price.

6.5 Scaffolding and working platform shall be included in the price.

6.6 Materials as detailed and as required to complete item as specified shall be included in the price.

6.7 Curing of plaster shall be included in the price.

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6.8 Cleaning of adjacent areas, windows, door frames, etc. including masonry surface in exposed masonry work, shall be included in the price.

6.9 Forming grooves for joints between beams/columns and masonry etc. shall be included in the price. Any special treatment if detailed shall be measured separately and billed in BOQ.

6.10 Providing and fixing chicken mesh at junction of R.C.C., brick work, edges, corners, chiseled and repaired brick work prior to plaster over concealed conduit, etc. shall be as directed by the Architect. It shall be considered as part of item and no separate charge will be payable.

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SECTION – 4

WATERPROOFING WORK

1.0 GENERAL

1.1 Standards

Indian and other International Standards followed for this section shall be as listed below. Any discrepancies or ambiguities seen shall be brought to the notice of the PM and clarification / confirmation sought. His decision shall be final. However, as a general rule, more stringent specifications shall be followed.

1.	IS 269	Specification for 33 grade ordinary Portland cement.
2.	IS 383	Specification for coarse and fine aggregates from natural sources for concrete.
3.	IS 2645	Specification for integral cement water proofing compound.
4.	IS 6494	Code of practice for water proofing of underground reservoirs and swimming pool.
5.	IS 8112	Specification for 43 grade ordinary Portland cement.
6.	IS 12118	Specification for two part polysulphide based sealant:
	Part – I	general requirements.
7.	IS 13826	Method of Test.

1.2 Quality Assurance

1.2.1 Manufacturer's Qualification

a) Not less than five years' experience in manufacturing of membrane roofing.

1. Obtain primary materials from single manufacturer. Manufacturer's name shall appear on containers and accessories.
2. Provide secondary materials as required by manufacturer of primary materials.

1.2.2 Applicators Qualification

a) Approved by manufacturer prior to execution of this Contract, with experience on at least five projects.

b) Foreman of Field Crew: Minimum five years' experience with system of waterproofing being installed.

1.2.3 Certifications

Manufacturer's certifications on manufacturer's letterhead:

1. Certify system design; penetration, transition, and perimeter details; and system specifications are appropriate and satisfactory for this particular project.
2. Certify products proposed for use comply with standards.

3. Certify materials ordered and supplied are compatible with each other, suited for local and purpose intended and shipped in sufficient quantity to ensure proper timely installation.
4. Certify materials have express warranty of merchantability and fitness for particular purposes of this Project.
5. Certify manufacturer has reviewed Project and will issue warranty upon successful completion of installation.
6. Certify materials shipped to site meet membrane manufacturer's published performance standards and requirements of this Specification.
7. Membrane manufacturer's approval of insulation type and method of installation.
8. Manufacturer's approval of installer.

1.3 Submittals

1.3.1 Product Data

Contractor to submit along with his proposal product data for material he proposes to use.

1.3.2 Informational Submittals

a) Certifications specified in quality assurances

b) Manufacturer's instructions

1.4 Waterproofing compounds

1.4.1 Waterproofing compounds shall be cementitious (cement based) non-shrinking, self curing mixtures. These shall be

- Free from sodium and chlorides
- Free from material detrimental to concrete and reinforcement.
- Able to create a membrane in one or multiple coats as per manufacturer's instruction.
- Membrane capable to prevent infiltration when applied to interior faces and ponded.
- Permeability, shear bond strength, compressive strength, volume changes meets minimum requirements of codes.

1.4.2 Accessories

All other accessories materials such as primers, bonding agents, polymers etc. shall be as recommended by waterproofing manufacturer.

1.5. Warranty

A. Special Warranty:

1. Warranty with attachments for full replacement value of completed installation signed by manufacturer, applicator and Contractor warranting against water infiltration and defects of materials and workmanship for period of ten years.
2. Provide warranty that covers labour and workmanship, including labour for access to waterproofing, for watertight warranty.
   a. Warrant penetrations, terminations, changes of direction, and membrane.

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b. Warranty shall include removing and reinstalling superimposed work covering waterproofing.

2.0 MATERIALS

2.1 Cement

2.1.1 Cement shall be ordinary Portland Cement conforming to IS and shall be of grade 43 or 33. It shall be received in bags of 50 kg and each batch shall be accompanied with a test certificate of the factory. Also it shall be tested before use to ascertain its strength, setting time, etc. In case cement has been stored for over 6 months or for any reasons the stored cement shows signs of deterioration or contamination, it shall be tested as per the direction of the PM prior to use in the works.

2.1.2 Cement shall be stored in such locations so as to prevent deterioration due to moisture dampness. A dry and water proof shed shall be provided. Bags shall be stacked on rigid water-proof platforms about 15 to 20 cm clear above the floors and 25 to 35 cm clear or away from the surrounding walls. A maximum high stack of 12 bags is permitted. Stacks shall be so arranged that the first batches are used first (FIFO), and that they permit easy access for inspection and handling.

2.2 Sand

2.2.1 Natural sand deposited by stream or glacial agencies as a result of disintegration of rock is the best form of sand and shall be used.

2.2.1.1 Sometimes it is obtained from crushed stone screenings but often contains a high percentage of dust and clay. It tends to be flaky and angular. This type produces harsh concrete and should be avoided.

2.2.2 Sand shall be hard, durable, clean and free from adherent coatings and organic matter and shall not contain any appreciable amount of clay. Sand shall not contain harmful impurities such as iron, pyrites, coal particles, lignite, mica shale or similar laminated material, alkali, and organic impurities in such form or quantities as to affect the strength or durability of concrete or mortar.

2.2.2.1 When tested as per IS 2386 Part I and Part II, sand shall not exceed permissible quantities of deleterious materials as given in table 1of IS 383.

2.2.3 Grading of sand shall conform to IS and shall fall within limits.

2.2.4 Sand shall be stored in such a way that it does not get mixed with mud, grass, vegetables and other foreign matter. The best way is to have a hard surface platform made out of concrete, bricks or planks. It should be to the approval of the PM.

2.3 Water

2.3.1 Water used for mixing and curing shall be clean, reasonably clear and free from objectionable quantities of silt, oils, alkalies, acids, salts so as not to weaken mortar or concrete or cause efflorescence or attack the steel in RCC while curing. It shall be free of elements, which significantly affects the hydration reaction. Potable water is generally satisfactory but it shall be tested prior to use in the works.

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2.3.2 Water tested shall be in accordance with IS 3025. Maximum permissible limits of deleterious materials in water should be as given in IS 456.

2.3.3 Water storage tanks shall be such as to prevent any deleterious materials getting mixed with it.

2.3.4 Water shall be tested and approved in writing by the PM prior to use in the works.

2.4 Accessories

Primers, bonding agents, water stops or plugs etc. as per recommendations of the manufacturer.

2.5 Mixes

a) Mix materials in accordance with manufacturer's instructions

b) Mix in clear containers

c) Do not re-temper mix after initial set.

2.6 Membrane

2.6.1 Polyurethane Membrane

Elongation (ASTM D412) : 620 %

Specific gravity : 1.5 to 1.55 g/cc,

Modulus @ 100% elongation (ASTM D412) : 0.62 N/mm2

Tear resistance (ASTM D624) : 15 N

Water vapour transmission(ASTM E96) : 9.7 g/m2/24 hrs.

2.6.2 HDPE Membrane

Colour- White

Hydrostatic Head Resistance at laps - 70 m head of water as per ASTM D5385

Water migration Resistance: 70 m head of water as per ASTM D5385

Elongation- 400%

Peel adhesion to concrete: >550N/m (ASTM D 903 Modified)

Low Temp Flexibility: -25°C, pass (ASTM D 1970)

Puncture Resistance - 800N (as per ASTM E154)

2.7 Extruded Polystyrene

Extruded polystyrene shall be rigid foam insulation boards having following properties

- 'U' value 0.051Btu/hr.sft. (or per design criteria)
- Density 32-35 Kg/Cum.
- Compressive strength 200-250 KN/Sqm

2.8 Light weight concrete blocks

Blocks should have minimum crushing strength 15 Kg/Sqcm for 100mm thick blocks and 30 Kg/Sqm for 150mm and 200mm thick blocks

Block shall be manufactured conforming to IS 2185 Part-III.

All blocks shall be sound and free of cracks or other defects. For exposed construction face or faces shall be free of chips, or other imperfections, and the overall dimensions of the blocks shall be in accordance to tolerance as specified.

2.9 Delivery / Storage.

All materials shall be delivered and stored at site conforming to following minimum requirements.

- Material received is approved by PM
- Material is in unopened container and labeled with manufacturer's name, brand name and instructions for use.
- Material received shall be along with manufacturer's certificate for quality and period of manufacture.
- Material shall be stored in dry, well ventilated and covered storage if so desired by manufacturer.
- Primers, adhesives etc. shall be as recommended by the membrane manufacturer.

3.0 SCOPE OF WORK

3.1 Work shall include design, supply, install and test proprietary waterproofing systems to underground structure, terraces, and toilet sunk slabs, UG and Overhead water tanks etc. This shall be guaranteed for 10 years on Rs.100/- stamp paper in proforma to be approved by the PM.

a) Waterproofing of basement including sealing of services junctions, drain points, sumps shall be as per approved box type proprietary treatment.

b) Waterproofing of terrace inclusive of grouting, sealing rainwater down takes outlets, other services outlets, junctions of walls, slab, beam, columns, parapet wall etc., where required expansion joints all as per approved terrace proprietary treatment.

3.2 Waterproofing of toilet sunk portions and water tanks inclusive of grouting, sealing, outlet pipes of services, junctions of slab, beams, walls and covering with protective cement sand plaster coat / screed.

3.3 Work shall include design, supply, install and test proprietary systems for basement, terrace sloped/flat roofs as approved by the PM. This shall be guaranteed for 10 years on Rs.100/- Stamp paper in proforma to be approved by the PM.

Work shall conform to minimum standards specified. Systems detailed hereunder are to clarify type of water proofing system expected. Contractor is at liberty to suggest and submit equivalent system with products meeting / exceeding standards.

3.4 Sub Contractor / Specialist shall be from the approved list and shall be approved by the PM in writing before being employed by the Contractor.

3.5 The Contractor shall submit

1. Statement giving detailed brief of work he proposes to carry out.
   a) Name of agency with his experience certificate and quantum of work carried out.
   b) Technical Specifications

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c) Product data sheets of material to be used

d) Shop drawing detailing

- Sections coordinated with typical installation details
- Vertical termination and sealing
- Laps needed if any
- Typical expansion, construction and control jointing details with minimum requirement.
- Horizontal fixing and laying details.
- Typical finishing arrangement.
- Flashings if required.

e) Protective measures to be taken.

f) Installation guidance

g) Samples of each product in duplicate fixed over plywood boards or similar to enable proper cross sections.

h) Manufacturer's certificate that product and material to be used is correct and shall give intended results when applied through authorized agency.

4.0 WORKMANSHIP

4.1 Preparation of Surfaces

a) The surfaces to receive the treatment shall be thoroughly cleaned of

- Laitances, scales, loose material on surface.
- Grease, oil or other contaminants by etching with 10-15% of solution of muriatic acid using commercial grade alkaline cleaner, flushing with clean water drying and vacuuming.

b) Surfaces shall be examined and well-defined cracks grouted by making 'V' groove / notches with cement slurry, shall be cured and dried well before treatment.

c) Any honeycombs shall be carefully cut and plugged, and cured well before treatment.

d) Examination of surface shall account for the fact that,

- Surfaces are cured for 14 days and no condensation has taken place.
- Horizontal and vertical surfaces have smooth finish, free from defects.
- Surfaces are dry, clean, free of grease, oil, dirt, rust, corrosion, other coatings and contaminants which could affect bond of water proofing system.

4.2 Terrace waterproofing

4.2.1 Various experienced water proofing specialists shall carry out the following or similar types of waterproofing treatments. Terraces and roof slabs shall be treated with integral cement based waterproofing consisting of light weight block bats concrete laid to slope. The treatment shall be taken over vertical surfaces as required / specified. Final finished surfaces may be laid with paving tiles, stones or finished smooth in cement and marked with false chequered marking. Points

given below are just for guide lines. The actual steps and details shall be submitted by the contractor for approval of the PM. Work shall be carried out as per approved method by the PM.

4.2.2 Surface preparation

The surface to be treated shall be cleaned and inspected thoroughly

a) All minor, medium cracks shall be marked.

b) All cracks shall be well defined and 'V' groove made. These shall be cleaned with compressed air, grouted with cement sand mortar 1:5 (1 cement : 5 sand) slurry mixed with non-shrinking and waterproofing compound. Areas well cured.

c) Then again surfaces shall be well cleaned of all loose particles, laitance, moss, oil/greasy material, cement etc.

d) Roof areas shall be well marked with spot datum to create ridge, lines, slopes and drain points for easy draining of water (Nominal slopes shall be about 1:100).

e) Cement sand mortar mixed in ratio 1:5 along with waterproofing and non-shrinking compound as specified by manufacturer shall be mixed with clean water and layer of about 20 to 30 mm laid over the entire area to be treated; then well soaked saturated Brick bats shall be arranged by proper placing to create required slope as per datum established. Minimum thickness at draining point shall be 75 mm.

Rain water inlet, pipes etc. shall be well grouted; edge, corners shall be well rounded (watta) by taking up treatment about 300 mm above proposed finished level.

f) This mortar laid and bat fixed area shall be kept dipped in water for at least 3 days.

g) Slab and roof soffits shall be examined for dampness from under. Any leakage / dampness noticed shall be treated with pressure grouting and again checked by dipping the area for 3 days.

h) When no dampness noticed, area shall be drained out and cement sand mortar mixed in ratio 1:5 (1 cement : 5 sand) shall be spread over the entire area and bats well grouted.

The top surfaces shall be finished to a neat horizontal datum level to achieve well defined ridges, gutters, watta etc. Edges shall be tucked in grooves in wall / parapet about 300 mm above proposed finished level.

i) Surfaces shall be finished / prepared to receive about 40 mm thick IPS (Indian patent stone) or China mosaic etc.

j) All expansion joints shall be cleaned, primed and finished with sealant as specified by manufacturer of sealant and approved by PM.

4.3 China mosaic work

The following are the guidelines for carrying out this treatment. All specialized Water Proofing Contractors have their own methods that may be used as per the approval of the PM.

4.3.1 The surface that shall receive the treatment shall be cleaned and all well-defined cracks shall be cut to a "V" groove, cleaned and filled up flush with cement-sand slurry.

4.3.2 Well-defined cracks other than hair cracks in the roof shall be cut to "V" groove, cleaned and filled with cement-sand-mortar mix in a ratio of 1:3. The treated surface shall be cured for 7 days. It shall then be treated with chemical polymer modified coating sandwitch with fibre mesh hand then provided with slopes.

4.3.3 The well-cured and dust-free surface shall be screeded with cement sand mortar in a ratio of 1:6 (1 cement : 6 sand), 12 mm thick.

4.3.4 While screed is still plastic but hardened a 3 mm thick floating coat of cement paste shall be applied. Whilst the floating coat is still green, china mosaic pieces (fully soaked in water) shall be set flat as close as possible in a pattern as specified or directed by the PM. A light wooden roller or suitable tool shall be used to make sure pieces are placed firmly and the cement paste oozed out.

4.3.5 The surplus cement grout shall be cleaned off.

4.3.6 Testing

Treatment shall be tested again by pending water about 250 mm high for 72 hours. Surfaces shall be examined for leakage seepage, dampness, sweating etc.

4.3.7 Measurements shall be in square metre for finished surface area. Rates shall include all items right from cleaning of surface to completion and testing required against defects such as leakage, seepage, dampness, sweating etc.

4.4 Waterproofing by Chemical coating

4.4.1 Various reputed and experienced chemical companies' offers water proof coatings through their approved applicator or under their direction. RCC slab shall be treated with approved chemical integral cement based water proof coating. Slopes to RCC slabs are achieved by laying the same while concreting or by laying screed / light weight concrete. Treatment is carried over to watta and on parapet at least 300 mm above finished surfaces. Chemical coated areas are further finished with 40 mm thick IPS or by laying paving stone, tiles, china mosaic etc. The actual steps shall be as directed by manufacturer chemical and approved by the PM. For guidance following steps shall be followed.

4.4.2 Surface Preparation

a) All minor, medium cracks shall be marked.

b) All cracks shall be well defined and `V' groove made. These shall be cleaned with compressed air, grouted with cement sand mortar 1:4 (1 cement : 4 sand) slurry mixed with non-shrinking and waterproofing compound. Areas well cured.

c) Then again surfaces shall be well cleaned of all loose particles, laitances, moss, oil/greasy material, cement etc.

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d) Prepared surface shall be finished smooth with cement sand mortar mixed in ratio CM 1:4 and applied about 8 - 10 mm and finished smooth by trowel. (This is basically to get smooth surface) for application of cement based chemical coating.

e) Smooth surface cured and moistened

f) Chemical added with cement as per direction of approved manufacturer shall be mixed, stirred and applied in one, two or three coats allowing required curing (minimum time gap between two consecutive coats).

g) Surfaces cured as per direction.

h) Surfaces shall be finished with screed about 15-20 mm if to be left long as protective coarse to receive further specified finish.

4.4.3 Measurements shall be in square metre for finished surface area. Rates shall include all items right from cleaning of surface to completion and testing required against defects such as leakage, seepage, dampness, sweating etc.

4.4.4 Filling sunken portion with light weight block bats

4.4.4.1 Filling light weight block bats (40-60 mm) with cement mortar mixed in ratio 1:3:6 (1 cement : 3 sand : 6 block bats) including mixing of water proofing compound 4 % by weight of cement. Further surfaces shall be screeded with (1:1.5:3) cement concrete mix with 4% by weight of cement approved waterproofing compound about 20-30mm thick and finished smooth or ready to receive finish material as specified. Care shall be taken prior to filling all pipes passing through sunk portion are pressure tested by maintaining pressure for 24 hours and junctions of pipes passing through walls, slabs are well grouted and sealed.

4.4.4.2 This shall be tested by ponding water for 100mm thickness and maintaining for 72 hours.

4.4.4.3 Measurement shall be in volume in Cum of filled sunk portion.

4.5 Membrane Waterproofing System for Water Tanks

4.5.1 Polymer modified cementitious elastomeric waterproof coating waterproofing system shall be applied to water retaining structures.

4.5.2 Steps followed shall be as per the directions of the manufacturers and approval of the PM. For guideline following steps may be followed.

1. Surface preparation

Clean the surface to remove dust, loose particles and laitance.

Providing and applying chemical injection treatment in the form of pressure grouting to leakage points, cold joints by injecting cement slurry mixed with approved expansive grout admixture @ 225 gms.per bag of cement, through the pre fixed PVC nozzles in the 18 mm dia holes, fixing of PVC nozzles with Renderoc Plug and final cutting the projected nozzles and sealing off the PVC nozzles after the injection operation is over with Renderoc plug, nonshrink rapid setting mortar compound, finishing, curing etc. as per approved manufacturers specification and as directed.

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Providing and applying at the junction of slab and vertical offsets with cement mortar 1:4 (1 cement : 4 mortar) and admixed with approved polymer bonding mortar additive at dosage of 1 Ltr per 50kg cement .

2. Providing and applying two coats of approved acrylic cementations waterproof coating as per approved manufacturer's specifications.

The coating shall have the following properties:

Water permeability, measured as volume of water collected in ml vs.

uncoated: Nil vs. 40 as per US 2645

Water penetration 5 bar pressure: 1% as per BS EN 12390

Elongation at break: 80-100% as per ASTM D 412 Bond strength (at +27 degrees, failure in substrate) : >1.0 N/sq.mm or as per ASTM 4541

Tensile strength: 1 N/sq.mm as per ASTM 4370 OR as per ASTM D 412

This shall be followed by two coats of water based, solvent free odourless, epoxy resin protective coating liquid applied system. It should confirm to USFDA CFR 175-300 or IS-13239-1991, IS-101(Part 6, sec 3)-1990 and approved by CFTRI for food grade certification.

The coating shall have the following properties:

Solid content: 49% by weight

Density of mixed resin: 1.22 g/l

Adhesion strength: Minimum 1.5 Mpa as per ASTM D 4541: 02 in N/mm2

Consistency: Free flowing smooth paste

Pot Life at 30 Degree Celsius: 60 minutes minimum

Positive hydrostatic pressure DIN 1048: No water penetration found up till 4 bars

3. Mixing and applying two coats of approved solvent free Epoxy resin coating for potable water retaining structures in 200 microns DFT using suitable brush or roller.

4. Wattas and rounding of corners, junctions with walls and floors and finished smooth and cured.

4.5.3 Treatment shall be tested by ponding water about 250 mm high for 72 hours. Surfaces shall be examined for leakage seepage, dampness, sweating etc.

4.5.4 Measurements shall be in square metre for finished surface area. Rates shall include all items right from cleaning of surface to completion and testing required against defects such as leakage, seepage, dampness, sweating etc.

4.6 Membrane Waterproofing (Landscape area)

4.6.1 Terraces and roof slabs shall be covered with light weight concrete laid to slope. The treatment shall be taken over vertical surfaces as required / specified. Final finished surfaces may be laid with paving tiles, stones or finished smooth in cement and marked with false chequered marking. Points given below are just for guide lines. The actual steps and details shall be submitted by the contractor for approval of the PM. Work shall be carried out as per approved manufacturer's specifications and approval of PM.

4.6.2 Surface preparation

The surface to be treated shall be cleaned and inspected thoroughly

a) All minor, medium cracks shall be marked.

b) All cracks shall be well defined and 'V' groove made. These shall be cleaned with compressed air, grouted with cement sand mortar 1:4 (1 cement : 4 sand) slurry mixed with non shrinking and waterproofing compound. Areas well cured.

c) Then again surfaces shall be well cleaned of all loose particles, laintances, moss, oil/greasy material, cement etc.

d) Areas shall be well marked with spot datum to create ridge, lines, slopes and drain points for easy draining of water (Nominal slopes shall be about 1:100).

e) Providing chemical injection treatment in the form of pressure grouting to leakage points, cold joints by injecting cement slurry mixed with approved expansive grout admixture @ 225 gms.per bag of cement, through the pre fixed PVC nozzles in the 18 mm dia holes, fixing of PVC nozzles with Renderoc Plug and final cutting the projected nozzles and sealing off the PVC nozzles after the injection operation is over with Renderoc plug, non-shrink rapid setting mortar compound, finishing, curing etc. as per manufacturers specification and as directed.

f) Providing and applying high performance, low odour, one-part, fast curing, high solids, polyurethane elastomer waterproof membrane over uniform RCC surface, as per approved manufacturer's specification. Apply minimum total WFT (Wet Film Thickness) of 1.8mm to achieve the required minimum DFT of 1.5mm. Apply in one or two coats by spray/roller or brush application.

g) Providing and laying separation layer of 150 gsm non-woven geo-textile mat laid above membrane with an overlap of 50 mm and stitched at junctions

h) Providing and laying protection layer of M20 grade concrete screed and working out a smooth finish to protect the waterproofing membrane from mechanical damage. The screed shall have a minimum thickness of 50 mm at the lower end and shall be laid in slope of 1:100 as per the site requirement. The screed shall be cured by ponding it for a minimum of 7 days.

i) Membrane on the vertical wall shall be protected with a 12mm thick protective plaster of 1:4 (1 cement : 4 sand) admixed with integral waterproofing compound of approved manufacturer's (at the dosage of 125ml/bag of cement) and terminating the same by making 10mm x 10mm chase/rebate on the vertical wall at a height of 300mm from FFL

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(Final Finish Level) for termination of the liquid membrane. The chase/rebate shall be sealed with approved PU sealant. Finish the surface smooth or keeping rough to receive further finishes on top.

j) All expansion joints shall be cleaned, primed and finished with sealant as specified by manufacturer of sealant and approved by Architect.

4.6.3 Measurements shall be in square metre for finished surface area. Rates shall include all items right from cleaning of surface to completion and testing required against defects such as leakage, seepage, dampness, sweating etc.

4.7 Basement Waterproofing

Membrane method

FLOOR

1) Clean the PCC concrete surface thoroughly. Ensure that the surface is free of loose material, dirt, dust, oil, grease or other foreign matter prior to start of treatment.

2) Providing and installing positive side waterproofing treatment for "Raft Slab" by using approved 1.2mm thick fully bonded HDPE sheet membrane before casting of Raft slab. Membrane shall be installed in strict accordance with the manufacturer's instructions and shall provide an intimate bond to resist water migration. The fully bonded HDPE sheet membrane shall consist of a multi-layer composite film which consists of highly resilient HDPE film, self-adhesive polymer layer and a trafficable particulate layer.

3) Membrane shall be installed with standard 75mm selvedge laps, and end laps executed with Fixer, applied as per manufacturer's instructions. Membrane shall be laid over the entire area and returned on to a vertical slab formwork. Hot applied materials or protective screed shall NOT be permitted.

WALL

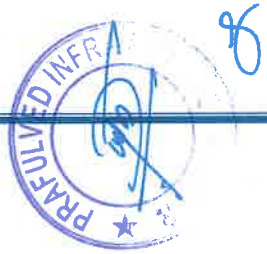
1) RCC Retaining Wall / footings shall be allowed to set for at least 48 hours.

2) After de-shuttering, clean the retaining wall / footing vertical surface thoroughly. Ensure that the surface is free of loose material, dirt, dust, oil, grease or other foreign matter, prior to starting treatment.

3) Providing and installing approved self-adhesive, cold applied, flexible 1.5mm thick waterproofing membrane comprising of a self-adhesive rubberized asphalt with a unique composite film engineered for strength, flexibility & a smooth finish with a pre-marked minimum 50 mm overlap aid applied on the uniform concrete surface.

4) Make 20mm x 20mm chase/rebate on the vertical wall for termination of the membrane. The chase/rebate shall be adequately sealed with approved single component flexible polyurethane sealant.

5) The laid membrane shall be protected with a 25mm thick approved expanded polystyrene of 24kg/cum density to be placed directly on membrane before backfilling.



5.0 TESTING

5.5.1 On completion of installation and prior to next operation or as directed by PM work shall be tested by the Contractor. Required water shall be arranged and disposed of by the contractor at his cost.

a) All openings, drains etc. shall be plugged.

b) Water shall be flooded about 200 mm over the Sunk portion. Water shall be kept for 72 hours.

c) Surfaces shall be observed critically and in case any leakage is observed areas shall be treated again and tests to be carried out again to the satisfaction of the PM.

5.5.2 Approval of water test does not relieve the contractor of his obligation of providing installed water proofing guaranteed for 10 years as per contract.

5.5.3 All arrangement of material, labour etc. required including preserving and maintaining areas flooded shall be carried out by the Contractor at his cost.

6.0 GUARANTEE

6.1 All waterproofing systems described above are to be referred as guide-lines only. The contractor shall propose the system before starting waterproofing work giving full description for approval of PM.

6.2 The system shall be guaranteed for 10 years against all defects and liabilities thereof from the date of completion of project. The guarantee shall be on Stamp Paper of Rs.100/- in proforma to be approved by Employer/ PM. (The contractor shall submit proforma for approval of Employer/ PM before being written on Stamp Paper.) The cost of Stamp Paper shall be to the contractor's account.

6.3 Work shall be carried through approved specialist agency as per method of working approved in writing by the PM.

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SECTION – 5

FLOORING AND CLADDING / DADO WORK

1.0 GENERAL

1.1 INDIAN STANDARDS

The Indian Standards to be followed are

1. IS 269 Specification for ordinary and low heat Portland cement.
2. IS 383 Specification for Coarse and fine aggregates from natural sources for concrete.

3.	IS 8042	Specification for white Portland cement
4.	IS 8112	Specification for 43 grade ordinary Portland cement
5.	IS 12118	Specifications for two parts polysulphide based sealants: Part 1 General requirements.
6.	IS 15622	Specification for pressed ceramic tiles

1.2 Quality Assurance

1.2.1 Stones received shall be from approved quarries and of approved lot.

1.2.2 Tiles manufacturer shall confirm that material is as per specification and within acceptable tolerances. Tiles shall be of one production run, of consistant quality, appearance and physical properties.

1.2.3 The contractor shall procure mortar, adhesive, grout etc. of approved quality design and standard and he will not change source of supply without written permission and with revised samples being approved.

1.3 Submittals.

1.3.1 The contractor shall submit manufacturer's each product data sheet covering technical literature and test certificates of independent laboratories.

1.3.2 The contractor shall submit comparative statement showing what is specified and what is proposed by him.

1.3.3 The contractor shall prepare shop drawings for layouts based on architectural concept drawings. Drawings shall include

- Detail plan with material & sizes of each element including joint widths.
- Pattern to full scale with ass
- embly details at each location for each type.
- Details shall show expansion, contraction, control and isolation joints in substrade and finished surfaces.
- Method of fixing.

1.3.4 Samples

a) Contractor shall submit samples of 300x300 stone minimum 4 nos. each to establish range of variation expected.

b) Full size tile samples 3 nos. each with colour, design as specified with manufacturer's catalogue.

c) Also special shade, shop samples if any for tiles and stone shall be submitted

d) Grouting material proposed with technical literature.

e) Sealants if proposed to be used.

f) Edging, expansion etc special strips to be used.

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1.4 Mockups

Prepare and install mockups for floor and wall as per drawings. Mockups may be part of completed work if undistributed.

1.5 Delivery, Storage and Handling

1.5.1 Material received at site shall be with original packing and labeled. It shall be intact till issued for use of site.

1.5.2 Store all material on elevated platform under cover at dry location and safe from damage.

2.0 MATERIAL

2.1 Cement

2.1.1 Cement shall be ordinary Portland Cement conforming to IS and shall be of grade 43 or 33.

2.2 White cement

White cement conforming to IS 8042 shall be as manufactured by JK or equivalent approved by Architect.

2.3 Lime

2.3.1 Lime shall conform to IS 712. Field slaking shall be done as per IS 1635 code of practice for field slaking of lime and preparation of putty.

2.3.2 Lime shall be filled in bags and stored safely in weather- proof sheds. It shall not be stacked against the walls of the shed. It should be used as soon as possible.

2.4 Sand

Sand shall conform to IS 1542 specification for sand for plaster. For white or coloured renderings, only quartz or silica sand shall be used. For textured finishes produced by treatment of freshly applied final or finishing coat with a tool coarser, particles used shall be screened through 3.35 mm IS sieve or 2.36 mm IS sieve. For torn texture a slightly larger portion of material coarser than 4.75 mm IS sieve shall be used.

2.5 Water

2.5.1 Water used for mixing and curing shall be clean, reasonably clear and free from objectionable quantities of silt, oils, alkalis, acids, salts so as not to weaken mortar.

2.5.2 Water tested shall be in accordance with IS 3025. Maximum permissible limits of deleterious materials in water shall be as given in IS 456 in table "Permissible Limits for Solids (in water).

2.6 Pigments

Coloured cement may be either ready-mixed material or may be obtained by mixing pigments and cement at site. The pigments to be mixed with cement shall conform to Appendix "A" of IS 2114 code of practice for laying in-situ Terrazzo Floor Finish.

2.7 Vitrified / Ceramic tiles

Tiles shall be of specified size and make or equivalent. Tiles shall be free from cracks, crazes, spots, chipped edges and corners. Variation in size shall be limited to + 1.5mm. Thickness shall be as specified in Bills of Quantities, but in no case shall they be less than 8 mm for Ceramic tiles and 10mm for Vitrified tiles.

2.8 Stone for flooring

The kota or other stone used shall be as approved by the Architect and shall be hard, sound, free from cracks, cavities, holes, patches of injurious veins, weathered portions, flaws, etc. For fair representation, 4 Nos. of 300 x 300 mm sized pieces shall be submitted for approval. Material received shall conform to the said approval group of 4 stones and no other type shall be accepted. Colour, grain, vein, etc. must conform to the approved sample only. Size and thickness shall be as specified. The stone may be ordered in various sizes to suit the pattern selected by the Architect. Required pattern matching of stone shall be carried out by the contractor while cutting the stone.

2.9 Adhesives

Tiles adhesive shall be cement based and shall conform to IS and/or international standards. These shall be as recommended by the tile manufacturer and as approved by the Architect.

2.10 Grouts

Readymade approved grouts as specified shall be used. Unsanded grout shall be upto 3mm joints and sanded grouts wide joints. Grouts may be

- Standard cement grout
- Polymer modified grout
- Chemical resistant
- Water cleanable
- Epoxy grout

2.11 Sealants

Sealants shall conform to Indian or International Standards and shall be as specified and approved by the Architect.

Polysulphide, silicon, urethane, and chemical resistant etc one part or multi part section shall be of approved manufacturer and shall be used as per direction of manufacturer.

It shall be stored in dry, ventilated store within specified temperature range. Use shall be well within its shelf lift.

2.12 Cleaner

A neutral cleaner capable of removing oil and residue without harming stone, tile, grout surfaces as recommended by manufacturer of tile, grout shall be used.

3.0 SCOPE OF WORK

Providing and laying of various floor finishes as per specification including

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- Preparing shop drawings if any
- Preparing surfaces and gradients if any
- Laying of tiles/stones in pattern if any
- Providing spacers / dividers if any
- Cleaning and grouting joints
- Polishing with machine/hand
- Curing
- Cleaning
- Protecting it till handing over

4.0 WORKMANSHIP

4.1 Examination

Examination substrate areas and conditions to verify for compliance with requirements for installation to execute the work within tolerances and making sure that it is not detrimental to any other conditions affecting performance, verify as under.

a) Substrate is firm, dry, clean and free of oil, waxy films, curing compounds.

b) Substrate is flat within tolerance

c) Anchors, recessed frames, electrical, mechanical, plumbing etc. work located within or behind are completed.

d) Joints and cracks are coordinated with joint locations.

4.2 Preparation

4.2.1 Floors

a) Hardened structural slab shall be throughly wire brushed, hacked with mechanical scabler to remove all scum (including curing compound if any), laitance of cement mortar to expose coarse aggregate, soap, wax, oil etc in compatible with bedding material.

b) Remove protrusions, bumps, ridged.

c) Fill cracks, holes with compitable leveling and patching cement based compound as approved and cure.

d) Dry lay stone and tiles for colour variation blending and approval of pattern by the Architect. Identify each tile with corresponding number from shop drawing.

e) Coat exposed faces of stone or tile where required to prevent staining surfaces by grout or otherwise while being installed.

f) Prepare all expansion, construction, control and isolation joint to correct line and level.

g) Any specific requirement by manufacturer

4.2.2 Walls

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a) Cured plastered surfaces shall be throughly cleaned to remove wax, oil or other injurious material.

b) Remove small protrusions from surfaces and variation not more than 4mm when checked with 3M straight metal.

c) Fill small cracks, holes etc. with compitable edge material for leveling.

d) Sort out tiles / stone for colour blending and pattern to approval of Architect. Identify each tile with number in shop drawing layout.

e) Coat exposed faces of stone or tile where it is required to prevent staining of surfaces by grout or otherwise while being installed.

f) Prepare all expansion, construction, control and isolation joint to correct line and level.

g) Any specific requirement by manufacturer.

4.3 Mixing mortar, adhesive and grout

a) Mix mortars in mechanical mixer with specified approved materials in proportion specified by Architect / manufacturer of tile (as approved by Architect).

b) Store mortar in non-porous platform and use within specified time.

c) Mixing equipment, mixer speed, mixing containers, mixing time shall be as specified.

4.4 Installation

a) Installation shall be as per recommendation of Code of practice or as per manufacturer's recommendation or as approved.

b) Extend the work to cover completely without interruptions unless otherwise indicated. Further work into recesses, under or behind equipments, fixtures etc. Terminate work neatly at obstructions, edges and corners without disrupting pattern or joint alignment.

c) Perform cutting, drilling without marking visible surfaces, carefully grind edges of abutting trim, finish or built-in items for straight aligned joints. Fit closely to electrical outlets, piping, fixtures and other penetrations such as plates, collers, covers etc.

d) Locate expansion, control, contraction and isolation joint as indicated in approved shop drawing during installation. Saw cutting of joint after installation must be avoided.

e) Prepare joint and apply sealant as per instruction of sealant manufacturer.

f) Joint widths of stone and tiles shall not vary more than 1.6mm or one fourth of natural joint width, whichever is less.

g) Areas where floor shall be stone and Ceramic tile shall be fixed with adhesive shall be screeded to correct line and level and of required thickness with clean cement concrete mix in ratio 1:2:4 (1 cement : 2 sand : 4 aggregate). It shall be well compacted leveled and graded to achieve accurate slopes if any with 3 M long metal edge screed shall be well compacted and shall be cured kept ready to receive tiles / stone with adhesive.

4.5 Movement Joints

4.5.1 Movement joints in Tile / Stone flooring are mandatory and shall be provided as per details and instructions of Architect / PM. General guidelines are as under:

a) For interior flooring locations, these joints are provided @ every 6m -7.5m in each direction.

b) For exterior locations or interior flooring direct exposure to sunlight / moisture, these joints are provided @ 2.5m to 3.5m in each direction.

c) These joints shall be provided at where tile / stone flooring abuts restraining surfaces like perimeter walls, dissimilar floors, curbs, columns, pipes, ceilings and where changes occur in backing materials, but not at drain strainers.

d) All structural expansion, control, construction, cold and seismic joints should continue through the floor work, including such joints at vertical surfaces.

e) Joints through floor work directly over structural joints must never be narrower than the structural joint.

f) Cold joints which are formed primarily between slab pours where the size of concrete slabs may be too large to be poured at one time. The remainder of the slab would be poured at a later time, forming a cold joint between the two sections. These joints should also be taken care of at the time of installation of floor above them.

4.5.2 Expansion joints

a) At exterior locations the width of vertical and horizontal expansion joints shall be minimum 10mm.

b) For interior locations for quarry tiles and paver tiles the joint width should be minimum 6mm. For ceramic / vitrified / mosaic tiles on floor and walls it is preferred as not less than 6mm but never less than 3.1mm.

4.5.3 Surface preparation for joint fillings

a) The tile / stone edges to which the sealant will bond must be clean and dry. Sanding or grinding of these edges is recommended to obtain optimum sealant bond.

b) Primer on tile edges shall be as per recommendations of the sealant manufacturer.

4.5.4 Sealants

a) Sealants for joint filling shall be compatible with the tiles / stones. Suitable sealant includes silicone, urethane and polysulfide. Urethane sealants are recommended for exterior vertical tile surfaces. Sealants in traffic areas require a shore A hardness of 35 or greater.

b) Silicon sealants may be used on both exterior and interior vertical tile surfaces. Single component, mildew-resistant with fungicide for sealing interior joints in tiles in showers and around tubs, sinks and plumbing fixtures.

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c) Suitable sealant types are

Type S – Single component sealant

Type M – Multicomponent sealant

Grade P – Sealants for joints on horizontal surfaces

Grade NS – Non sagging sealants for joints in vertical surfaces

Class 25 and 12-½ – Identifies sealants which can withstand increase and decease of ± 25% or ±12.5% of joint width.

Type T – Sealants in joints subjected to pedestrian and vehicular traffic.

Type NT – Sealants for Non-traffic exposures.

Type M & G – Sealants that will remain adhered to mortar (M) and Glass (G).

d) Backup strips shall be a flexible and compressible type of closed-cell foam polyethylene, butyl rubber or open cell and closed cell polyurethane, rounded at surface to contact sealant and as per recommendations of sealant manufacturer. It must be fit neatly into the joint without compacting and to such a height to allow a sealant depth of ½ the width of the joint. Sealant must not bond to the backup material.

4.5.5 Installation

a) Movement joints in tiles / stones should be located over all cold joints and sa-cut control joints.

b) Joints in tile / stone and setting materials shall never be less than the width of saw-cut control joint width.

c) To insure that the location of joints in tile/stone work align with existing joints in substrate, joints in tile / stone work should be constructed during installation of mortar beds and /or tile / stone, rather than saw-cutting joints after installation.

d) Movement joint cavities should be kept open and free from dirt, debris, grout, mortar and setting materials.

e) While installing tile / stone work, suitable and compatible compressible backup strip or removable wooden strip should be set in place of joint and backup after mortar has cured.

g) Compatible and suitable sealant should be installed after tile / stone work and grout are dry, as per recommendations of sealant manufacturer.

h) Saw-tooth joints affect the performance of sealant and caulking materials and are not recommended unless used with a crack isolation membrane.

4.5.6 In case of existing flooring to be replaced with new flooring material (with prior approval from Architect / PM), necessary surface preparation, including removing debris, making leveled (match with other existing surfaces) surface, patch work etc.

5.0 TYPES OF FLOORING AND INSTALLATION

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5.1 Kota stone flooring

5.1.1 Stone

5.1.1.1 Machine cut Kota stone slabs used shall be of specified thickness. Colour shall be uniform and the slabs free from all defects. Stone used at site shall be machine-cut.

5.1.1.2 In machine-cut edge tiles, edges shall be protected from any damage in transit. No breakage shall be permitted. All edges shall be sharp, perfectly rectangular and all tiles otherwise shall be rejected outright. Edges shall be pencil-rounded and polished for exposed corners and faces.

5.1.2 Bedding

It is provided with specified thickness cement sand mortar bed. This gives workability and helps achieve dead accurate levels. Cement sand mortar in a ratio of 1:6 (1 cement : 6 sand) shall be provided for bedding.

Surface shall be wetted and cleaned thoroughly. Mortar shall be spread uniformly, tamped and levelled with a 3 m straight edge. The bed shall be keyed prior to finishing of the day's work. Thickness shall be as specified but at no point the bed shall be less than 10 mm.

5.1.3 Laying of Kota stone

A thick cement slurry / paste or equivalent ready made slurry bond coat of approved manufacturer shall be spread over the bedding and cleaned Kota stone shall be laid over this grouted area. Grouting shall be such that the area is covered within 15-20 minutes. Joints shall be as thin as possible and limited to 1-2 mm at the maximum.

Laying shall start after due consideration is given to following points and approved by the Architect.

1) Datum levels of floors in rooms, adjacent rooms, passages, etc.
2) Stones in openings and doors are equally placed.
3) Passage may be laid first to achieve evenness in doors.
4) Stones in room shall be symmetrical and equal cut tiles shall be around the edges.
5) In case of differently coloured stones in passages and rooms are used, a dividing strip shall be provided and changeover of colour shall be under the shutter.
6) In case there is any other architectural or structural feature, the same shall be considered and the pattern adjusted accordingly.
7) Stones may be allowed to go under plaster or dado about 10 mm.

5.1.4 After the stones are laid, surplus slurry from the joints shall be cleaned. The following day the joints shall again be cleaned, washed and wire brushed.

Grouting of joints shall be carried out with unsanded readymade grouts. Grout shall be worked into joint. Excessive grouts shall be cleaned off.

5.1.5 The floor shall be kept wet for a period of 7 days. No traffic shall be allowed on the bedding and bedded tiles for at least 2 days.

5.1.6 Polishing

Polishing and grinding shall be done only after 14 days. Machine cutting or grinding shall be carried out. At first the grinding shall be with rough stone and grinding shall be uniform. It shall be cleaned with water. All pin-holes and opened out joints shall be grouted with cement grouts. It shall be cured for a period of 7 days by keeping it moist.

Second coat cutting/grinding shall be done with carborundum stone of grade 120. The same procedure as for the first coat shall be repeated till curing is completed.

The final cutting/grinding shall be with a fine stone of 220- 350 grade and shall be done with ample water.

Oxalic acid powder shall be spread 33 gm/sq m, fitted with hessian bobs and polished by machine. The floor shall then be washed, cleaned and dried with a soft cloth or linen.

In case of wax polishing, wax polish shall be applied to the surface. It shall be rubbed with machine. Then clean saw- dust shall be spread over the floor and rubbed with polishing machine. This will remove wax, leaving a glossy surface under- neath.

5.2 Vitrified / Ceramic tiles floor

5.2.1 Tiles

5.2.1.1 Approved Vitrified / Ceramic tiles shall be laid over cement sand mortar bed. Cement sand mortar in a ratio of 1:4 (1 cement : 4 sand) shall be provided for bedding. Tiles shall be laid in accordance to IS specifications and instructions of manufacturer.

5.2.2 Floor to receive tiles shall be wire brushed cleaned, wetted and mopped. Cement mortar shall be spread over the area uniformly and compacted with 2-3 metre straight edge to achieve dead uniform levels. Surface shall be allowed to harden but in plastic state a thick cement paste by using cement @ 4.5 kg/sq m shall be worked into the bedding. Cement paste or approved tile adhesive shall be applied to the area only where immediate laying of tiles is carried out. Wetted tiles shall be cleaned and fixed in the thick cement pasted bedding. Tiles shall be positioned by tapping with wooden hammer and level checked with straight edge 2-3 metre long. Joints shall be as specified or as thin as possible. Points to be noted prior to start are as under -

1) Layout of the tiles is checked and approved by the Architect.

2) End cut tiles are more than half.

3) Floor and wall tiles are in the same line.

4) Change of tiles is below the door shutter.

5) Dividing strip is provided if shown in drawing.

6) Cutouts of floor drains are in line with the tiles. Tiles around cutouts are greater than 50 mm or half the tile whichever is greater.

7) Joints shall be cleaned thoroughly and grouted with approved unsanded readymade grout or as directed by the Architect. Grout shall be a thick paste and tooled into joints and area of the tile cleaned with a damp cloth. Grouting shall be cured by wet curing for 7 days.

8) After 24 hours of grouting, tiles shall be cleaned with water and after 7 to 10 days or prior to handing over, tiles shall be washed with mild acid. Care shall be taken that grout does not develop any stain mark.

9) All expansion joints shall be carried out right through and finished by sealing with silicon sealant.

5.3 Ceramic tile (wall/dado)

5.3.1 Approved Ceramic tiles of size design and shape shall be used.

Tiles shall be fixed over plastered surfaces with approved adhesive.

5.3.2 Dado tiles shall be fixed as under -

It is preferred that tiles for dado shall be fixed with approved adhesive as manufactured by approved adhesive manufacturer. Brief method of working shall be as under.

1. Apply 2-3 mm thick mortar of approved adhesive over dry plastered surface and shall be leveled and combed with special combing trowel. Adhesive shall be applied to area just sufficient so that within 1 hour tiles shall be fixed.

2. The surface of the adhesive shall be allowed to be weathered for a period about 5-10 minutes and ensured that it has become sticky.

3. Dry tiles shall be gently pressed by twisting / sliding action and leveled with wooden mallet and checked with straight edge of aluminium section.

4. Joints and surfaces shall be cleaned with wet cloth to remove grout coming out from joints.

5.3.3 Jointing

1) Joints shall be cleaned thoroughly and grouted with unsanded readymade grout as directed by the Architect. Grout shall be a thick paste and tooled into joints and area of the tile cleaned with a damp cloth. Grouting shall be cured by wet curing for 7 days.

2) After 24 hours of grouting, tiles shall be cleaned with water and after 7 to 10 days or prior to handing over, tiles shall be washed with mild acid. Care shall be taken that grout does not develop any stain mark.

3) All expansion joints shall be carried out right through and finished by sealing with silicon sealant.

5.3.4 The work shall be measured in sq m for flooring and running metre for skirting, tread and riser. Length shall be measured from the finished face of skirting, dado or wall plaster. Depth shall be measured from outer line of nosing to the finished face of riser or in the case of the edge tiles of

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the landing or wide steps, to the rear edge of the stair trade tile. The rest of the paving in landing or wide steps shall be measured under similar flooring.

5.3.5 The rate shall include the cost of all materials and labour involved in all the operations described above. Nothing extra shall be paid for cutting the standard tiles to suit the size of treads.

5.4 Indian patent stone

5.4.1 Cement concrete floor in a ratio of 1:2:4 (1 cement : 2 sand : 4 aggregate) of 40 to 75 mm thickness shall be laid in panels.

The concrete surface finish may be monolithically laid with structural slab or laid over hardened structural slab. For convenience and to protect final finish in the period of construction, laying of concrete over-hardened structural slab shall be preferred.

5.4.2

a) Hardened structural slab shall be thoroughly wire-brushed, hacked with mechanical scabler to remove all scum, laitance of cement mortar and allowed to expose coarse aggregate. Surface shall be wetted and cleaned thoroughly.

b) Concrete shall be laid in panels. Panels shall be such as to minimise shrinkage and curling. Their length to breadth ratio shall be 1.5 : 1. It is advisable to keep the maximum length of each panel as 2.0 m and area of the panel shall not be more than 2 Sqm.

Panels shall be formed by providing shuttering of timber or steel angles to dead accurate level. They shall be rigid and watertight.

c) In case dividing strips are to be provided, the same shall be fixed to dead accurate level and concrete poured into them (spaced at 2m but not required to be in alternate bays).

5.4.3

a) The concrete mix used shall be as stiff as possible. When mix is held in hand it shall form a ball but when released will crumble by itself.

b) All excess water from the surface shall be mopped up keeping surface just wet.

c) Thick cement paste/slurry shall be brushed into the surface just prior to laying of the concrete. It must be noted that slurry shall not be brushed over area where concrete laying is likely to be delayed.

d) Concrete laid shall be vibrated and rammed as required. It shall be leveled with 3 m straight edge.

e) Surface shall be well troweled and rubbed smooth to the satisfaction of the PM.

f) No additional dry cement or cement mortar shall be sprinkled on the stiffened concrete surface to achieve smoothness.

g) Concrete shall be kept moist for 14 days.

h) Edges of panels shall be well-compacted to minimise lifting and curling.

5.4.4 IPS-laid monolithic with structural concrete shall be carried out as under

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a) Floor concrete slab shall be allowed to stiffen enough but still be in a plastic stage.

b) Mix shall be laid in position and well-compacted with wooden float and leveled with 3 m straight edge.

c) After the surface has become slightly hard, steel troweling shall be carried out to achieve a smooth, leveled surface.

d) No additional dry cement or cement mortar shall be sprinkled on the stiffened concrete surface at any stage.

e) The concrete shall be wet cured for 14 days.

5.4.5 Measurement shall be in square metre for specified thickness and for specified mix.

6.0 STEPS, CLADDING / SKIRTING

6.1 Material for dado, steps, risers shall be as specified in clause 2.0 above.

6.1.1 Surface preparation shall be same as for flooring for each type. Cladding / skirting work shall be done over plastered concrete/masonry surfaces and gyp board partitions. It shall be combed for creating a key and better adhesion with skirting material.

In case of steps, bedding shall be laid exactly as flooring and all operations described therein shall be carried out.

6.1.2 External and Internal facings shall be fixed with adequate provision for expansion and compression joints.

The contractor shall supply and fix all necessary supports, anchor slots, anchor cramps and dowels required for the satisfactory completion of all vertical granite or any other stone cladding work. Fastener/clamps etc. will be made from suitable non-ferrous metal. They shall be in such shape and dimension that they are adequate to carry the loads to be imposed upon them.

Fixing of wall cladding with stone shall be done through experienced masons only. All stones shall be fixed to wall in perfect plumb and level as per design. To keep the stone in position use of gypsum shall be done and all back cavity after fixing of clamps, dowels etc. shall be grouted with non-shrinking grout. Height of cladding shall be raised in a day which is self supporting.

Joints and surfaces shall be cleaned thoroughly by using coir stringer wire brush. Then joints shall be grouted with approved ready-made grout or matching colour grout as directed. Surfaces shall be allowed to care for 7 days.

Not withstanding the above stipulation, the contractor shall be entirely responsible for the sufficiency of fixings.

All anchors and other fixing shall be concealed when the work is completed.

Great care shall be taken to protect delivered stones from dripping and staining during the course of work.

6.1.3 Skirting or dado tiles shall be fixed as under –

1. Apply 2-3 mm thick adhesive and shall be leveled and combed with special combing trowel. Adhesive shall be applied to area just sufficient so that within 1hour tiles shall be fixed.
2. The surface of the adhesive shall be allowed to be weathered for a period about 5-10 minutes and ensured that it has become sticky.
3. Dry tiles shall be gently pressed by twisting / sliding action and leveled with wooden mallet and checked with straight edge of aluminium section.
4. Joints and surfaces shall be cleaned with wet cloth to remove grout coming out from joints.

6.1.4 Jointing

1) Joints shall be cleaned thoroughly and grouted with unsanded readymade grout as directed by the Architect. Grout shall be a thick paste and tooled into joints and area of the tile cleaned with a damp cloth. Grouting shall be cured by wet curing for 7 days.
2) After 24 hours of grouting, tiles shall be cleaned with water and after 7 to 10 days or prior to handing over, tiles shall be washed with mild acid. Care shall be taken that grout does not develop any stain mark.
3) All expansion joints shall be carried out right through and finished by sealing with silicon sealant.

6.1.5 Polishing and cleaning shall be as described in type of tile referred above, except that the operation shall be manual.

6.1.6 Measurements shall be in running meters for skirting, steps, risers for specified width. Dado shall be measured in square meters.

Rates shall include material and labour required to complete the item as specified and approved by the Architect. It shall include dividing strips, treating expansion joints, sealing corners and edges around fittings and fixtures, etc. all completed as approved by the Architect.

7.0 STONE COPINGS, JAMBS, SOFFITS ETC.

7.1 Stone used for copings, jambs, soffits etc. shall be of specified variety. It shall be hard, sound and uniform in colour and texture and free from defects like cavities, cracks, sand holes, flaws, injurious veins, patches of loose or soft materials etc. percentage of water absorption shall not exceed 5 percent when tested in accordance with IS 1124. Samples shall be got approved prior to ordering of stone.

7.2 Dressing

All exposed plane surfaces and sides shall be chisel dressed such that dressed surface shall not vary by more than 1 mm at any point from a 600 mm long straight edge placed against it. All visible angles and edges shall be free from chippings and polished as specified or as directed by

the PM. The surface to be buried in masonry shall be rough chisel dressed. Copings, jambs, soffits shall be finished to the shape as shown in drawings. Stone shall be cut as per the pattern shown in the drawing. Thickness of stone shall be as specified, with a tolerance of 2mm.

7.3 Laying and fixing shall be done with approved grade and cement slurry, in the manner shown in the drawing and as directed by the PM. Fixing of stone shall be done with adjoining work in grooves, rebates etc. as shown in drawing. They shall also be secured to the backing masonry / concrete work by means of stainless steel / Gum metal / G.I. pin dowels, cramps etc. as detailed in drawing or as directed by the PM.

7.4 All joints shall be pointed in approved marching colour readymade grout as specified in BOQ. Joints shall be as detailed in drawing.

Minimum depth of pointing shall be 10 mm may be with gray cement or with addition of pigment to match the shade of stone or in colour as specified. Type of pointing may be sunk in, raised or flush as specified and detailed in drawing.

7.5 Green work shall be protected from rains by suitably covering the same. Masonry shall be kept constantly moist for a period of 7 days.

7.6 Double legged steel scaffold (or as approved) shall be adopted. Scaffolding shall be strong and well anchored with building.

8.0 SANDWICHED CUDDAPPAH PLATFORM WITH GRANITE STONE TOP

8.1 Machine cut machine polished kota stone slabs used shall be of thickness as per drawing, colour shall be uniform and the slabs free from all defects.

8.2 Slabs shall be either machine cut at factory in required sizes or cut by m/c at site. In all cases no damaged stone shall be used in the work.

8.3 Vertical stones and stones of shelves shall be machine polished on both faces and all exposed edges while the top slab shall be polished on one side i.e. underside while top surface shall be kept rough for better adhesion with Granite stone top.

8.4 All edges shall be sharp, perfectly rectangular and the exposed edges shall be pencil rounded and polished as shown in drawing or as specified by the PM.

8.5 Assembly of toilet counter shall be done as per detail drawing or as directed by the PM.

8.6 Vertical pieces shall be in perfect plumb on all sides while horizontal slab shall be in perfect level.

8.7 All joints and in fill layer shall be filled with cement sand mortar of mix (1:4) 1 cement : 4 sand and properly cured.

8.8 Granite stone top used shall be of approved quality and shade. Thickness shall be as shown in drawing or as directed by the PM and all slabs shall be machine cut mirror polished.

8.9 All slabs preferable shall be from same mines and to ensure uniformity of colour and quality.

8.10 Cutting and polishing shall be by machine only either at factory. No damaged piece shall be used.

8.11 All edges shall be sharp, perfectly rectangular and the exposed edges shall be pencil rounded and polished.

8.12 Granite stone top shall be laid over cement mortar bed mix in ratio of (1:4) 1 cement : 4 sand. Prior to laying of mortar bed the top of kota stone base shall be scrapped clean and washed thoroughly.

8.13 Mortar bed shall be laid and neat cement slurry with cement paste shall be spread over the mortar bed and clear granite / marble slab shall be laid and fixed to perfect level over it.

8.14 Joints shall be as thin as possible and limited to 1-2 mm maximum. The joints shall be wiped off for excess cement slurry and cleaned prior to grouting with matching coloured cement grout.

8.15 Granite stone fascia patti shall be fixed by using anchors and epoxy based adhesives of approved type by the PM.

8.16 Work shall be protected and cured for at least 7 days. The timber props on braces shall be left in place as per instruction / recommendations of adhesive manufacturer.

8.17 The sink of specified size and make shall be fixed by cutting of kota stone base and the joints on top with granite / marble shall be filled with silicon sealant of approved make and colour.

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SECTION – 6 / A
WOODEN FRAME & DOORS

1.0 GENERAL

1.1 INDIAN STANDARDS

Work shall be carried out to Indian Standards and Code of practices. In absence International standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies / conflict noticed shall be directed to the PM for his direction / approval. However as a general rule more stringent specification shall take precedence.

1.	IS 287	Recommendation for maximum permissible moisture content for timber used for different purposes in different zones.
2.	IS 401	Code of practice for preservation of timber.
3.	IS 848	Specification for synthetic resin adhesives for plywood (phenolic and amino plastic).
4.	IS 851	Specification for synthetic resin adhesive for construction (non-structural) in wood.
5.	IS 852	Specification for animal glue for general wood working purposes.
6.	IS 1003	Specification for timber paneled and glazed shutters Part 1 Door shutters
7.	IS 1141	Code of practice for seasoning of timber
8.	IS 1328	Specification for veneered decorative plywood
9.	IS 1508	Specification for external for use in synthetic resin adhesives (urea-formaldehyde) plywood.
10.	IS 2036	Phenolic laminated sheet
11.	IS 2202	Specification for wooden flush door shutter (Solid core type) Part I Plywood face panels Part II Particleboard and hard board face panels
12.	IS 2221	Method of test for Amino plastic moulding material
13.	IS 4020	Method of tests for shutters Part 1 to 15
14.	IS 4021	Specification for timber doors, window and ventilator frames.
15.	IS 4913	Code of practice for selection, installation and maintenance of timber doors and windows.

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16. IS 7196 Specification for hold fast
17. IS 7638 Method of sampling for plywood, fibre hardboard, insulation boards and particle boards
18. IS 9307 Method of Test for wood based structural sandwitch construction.
    Part 2 Edgewise compression test.
    Part 3 Flat wise compression test.
    Part 4 Shear test
19. IS 12120 Code of practice for preservation of plywood and other panel products.

1.2.0 Quality Assurance

1.2.1 Comply with standards specified for material and workmanship

1.2.2 Supervision and workmen employed shall be experienced in field of carpentry works and shall be able to guarantee workmanship and finish of standards as established and approved by the PM.

1.2.3 Shutters manufacturer shall have ISI certification and each shutter received at site shall bear stamp of ISI, manufacturer and type of product, batch no., etc.

1.2.4 Shutter manufacturer shall have minimum 7 (seven) years' experience in this product.

1.3.0 Submittals

1.3.1 For approval the contractor shall submit with detail note

a) Literature / Catalogue of product to be used.

b) Test certificates from independent laboratories conforming that product meets standards specified.

c) Manufacturers certification that product meets / exceeds specification for the project.

d) Samples

i) Timber piece - 300x100x60 mm 3 Nos.

ii) Shutter - corner piers showing detail construction.

iii) Veneers - 300x300mm

iv) Laminates - 300x300 with shade samples

v) Samples with polish / paint finish as specified.

vi) Joinery details

13.2 Shop Drawings

The contractor shall prepare joinery detail drawing for site measurement. Drawings shall indicate each material, its installation, fixing details, finishing, etc. all in plan, elevation, section and typical details

2.0 MATERIAL

2.1 Timber

2.1.1 Timber shall be of quality as specified in BOQ / Schedule and well-seasoned. When a kind of timber is not specified, good quality teak wood shall be used. It shall have uniform color, be free from defects such as cracks, dead knots, soft spongy spots and waves of injurious open shapes. Grains shall be reasonably straight. The individual hard and sound knot shall not be larger than 6 sq cm. The aggregate area of all knots shall not exceed 0.5% area of a piece. All timber is sawn unless otherwise stated.

2.1.2 All timber shall be treated with chemical wood preservatives and be kiln seasoned to IS 1141 and conform to IS 287 for moisture content. Moisture content shall be between 12% to 15%. It shall be prior to being brought to site and report shall be submitted to the Engineer. All timber to be treated shall be finished to final dimension before it is treated. Treated timber brought to site shall accompany inspection report. In case of fabricated joinery item it shall accompany along with same.

2.1.3 Timber used shall be treated with a 10 years guarantee and approved anti-termite treatment.

2.1.4 Timber received at site shall be marked and stamped for approval prior to being used at site.

2.1.5 Sizes specified are not indicative and shall be correct finished sizes within allowable tolerances.

2.1.6 All timber shall be finished to required dimension and texture prior to being treated for chemical preservation.

2.2 Plywood

2.2.1 Plywood used shall be WBP type, of specified thickness and conforming to IS test as specified.

Marine ply shall be used in damp and exposed weather location / conditions.

2.2.2 Veneers of plywood faces to be painted or finished with similar treatment and be totally free from knots, worm and beetle holes, splits, stains of glue or other acceptable defects.

2.2.3 Plywood face to be natural face finished and shall be totally free from knots, worm and beetle, holes, stains of glue splits or other acceptable defects.

2.3 Plastic Laminated Sheets

2.3.1 Plastic laminated sheets shall be 1 mm thick with an amino plastic facing, cigarette-proof and shall comply with standards and specifications.

2.3.2 Sheets shall be of approved manufacturer from his range in approved colour.

2.4 Flush Shutters

2.4.1 Readymade flush shutters shall be as specified and shall comply with respective code of practice. Manufacturer's certificate confirming that shutters supplied comply to IS shall have to be obtained and submitted to the PM. Also a copy of test certificate from an independent laboratory shall be obtained. Door shutter shall be tested from a laboratory to get confirmation that door shutter comply to IS specifications.

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2.4.2 Shutters shall be of specified thickness. They will have natural ply or teak wood veneer finish or 1.2 mm thick melamine sheets as specified. These shall be hot pressed and bonded with water resistant formaldehyde synthetic resin of exterior quality as per IS specifications. The adhesive used for bonding cross band to core and face veneers to cross band shall conform to IS 848 (Phenolic and Aminoplastic). Ensure that the adhesives are unaffected by any timber treatment.

2.4.3 Tolerance on width and height shall be + 2 mm. Tolerance on thickness shall be + 1 mm. Thickness of shutter shall be uniform throughout. Variation permissible shall be 0.8 mm.

2.5 All fittings and fixtures shall be as specified in schedule or bills of quantity or as directed by the PM. It shall be conforming to IS and shall be of Brass of approved make. Fittings shall be guaranteed by the manufacturer for its performance. Woods screws shall be matching and of type as required for each fittings and shall conform to IS.

2.6 Nails / screws

All nails, screws etc. shall be hot dip galvanised or of brass or non-ferrous material.

2.7 Adhesives

Adhesives and glue shall be as per IS for exterior quality and water repellent.

2.7 Approved primer and sealer for the paint shall be used.

3.0 SCOPE OF WORK

3.1 Frames

3.1.1 Wooden frames

Size of timber shall be specified in the BOQ. Frames shall be rebated to house the shutter. They may be rebated on both sides, or rounded or moulded, etc. as per drawing if specifically referred in BOQ. For single rebate, depth shall be 15 mm.

Frames shall be finished smooth to receive paint, polish or any other specified finish. Surface abutting against masonry or concrete must be with anti-termite treatment and a coat of boiling coal tar or any other approved wood preservative or primer applied prior to placing in the final position.

Frames shall be fixed in position to correct line, level and plumb. All door shutter tops shall be aligned in one level. Frames shall be braced and supported when masonry is in progress. Holdfast shall be provided along with masonry and grouted in concrete 1:3:6 (250mm x 100mm high x Wall width). Bracing and supports of frames shall be removed only when masonry and grout is set.

3.1.2 Metal frames

Angle iron frame as specified in BOQ.

3.2 Flush shutters

Provide approved quality and make flush shutter of size and thickness with required fire rating if any, required fittings and fixtures, and finished as specified in drawing / BOQ. Work shall

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include testing at independent laboratory supervision submitting guarantee for quality, fire rating if any etc. to PM for work and executed.

3.3 Providing, preparing, moulding teak wood architraves of details as given by the PM. Work shall including preparing, seasoning, moulding, cutting, fixing with headless nail, etc. all complete and approved painted or polished as specified by the PM.

4.0 WORKMANSHIP

4.1 General

4.1.1 Timber brought at site shall be as approved by the PM.

4.1.2 No timber shall be painted, tarred, oiled, etc. before its inspection by the PM. Any effort to hide the defects by plugging, painting, etc. shall render the piece to be rejected by the PM.

4.1.3 All rejected timber shall be removed at once from the site of work.

4.1.4 All sawing of timber shall be done in straight lines and planes of uniform thickness.

4.1.5 All joints shall be tongued and grooved or of the type shown in the drawings specified in the item or as directed by the PM. All joints shall be glued with approved water repellent adhesive.

Joints shall be strong, neat and shall fit without wedging or filling. They shall be pinned with hard wood or bamboo pins of 10- 15 mm dia after the members of the frame are glued and pressed together in a suitable vice-mechanism. Also jointing concealed pins shall be provided.

4.1.6 Prior to joining, wood members of frame shall be planed smooth and accurate to the full depth. Rebates, rounding, moulding, etc. as shown in the drawing shall be done before the members are joined.

4.1.7 No defects which reduce the strength of the connection are permitted at joints, bearing or assembly connections.

4.1.8 All timber items shall be subjected to inspection by the PM prior to any treatment to be carried out. No item shall be installed unless it is approved by the PM.

4.2 Flush Shutters

4.2.1 The timber used in core of flush door shall be from species specified in Appendix A of IS 2202 part I. For styles, rails and lapping timber specified in-group 2 of Appendix A shall be used. Moisture content in the timber shall not be more than 12% when tested according to IS 1708.

4.2.2 Timber shall be seasoned, chemically treated and anti-termite treated. It shall be free from decay and insect attack.

4.2.3 Plywood used in flush shutters shall conform to BWP grade.

4.2.4 Cross band used in flush door shutters shall conform to the requirements laid down in BWP grade plywood.

4.2.5 Adhesives used shall be phenol formaldehyde synthetic resin conforming to BWP type. All bonding such as core members to one another including core frame, lapping, cross band and

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plywood to core and face veneers to cross band shall be with phenol formaldehyde or as approved exterior quality.

4.2.6 Construction shall conform to specification given in IS 2202 Part I.

4.2.6.1 A frame constructed of styles and rails shall be provided for holding the core. Width shall not be less than 50 mm and more than 100 mm inclusive of lapping if provided.

4.2.6.2 Core may be of wooden strips, particleboard, combination of block board and particleboard.

4.2.6.3 Styles and rails shall be made of one or more pieces glued together.

4.2.6.4 Levelling by planning of surfaces shall be carried out at each stage of construction to eliminate impressions of the core strips on the outside face.

4.2.6.5 Face panel shall be formed by gluing by hot press process on both faces of the core. Face panels shall be minimum 6 mm ply. Direction of grain on face to be vertical.

4.2.6.6 Lapping may be internal or as edge-band as specified and approved by the PM. External lapping shall be solid and minimum 6 mm thick on the face of the door. Edge band lapping shall have a total depth of minimum 25 mm. Joints shall not be permitted in lapping.

4.2.6.7 Double leaved shutters shall be rebated meeting either by splayed or square type. Thickness of lapping shall not be less than 35 mm.

4.2.6.8 Opening for glazing and ventilation shall be provided if specified. Opening of glazing shall be lipped internally with solid timber.

4.2.6.9 Shutters shall be shop-prepared for taking mortise locks or latches as may be ordered. Sizes of block for fixing hardware shall conform to IS 2209.

4.2.7 All four edges of shutters shall be square or free from twist or warp in its plane. Both faces shall be sanded to a smooth even texture.

4.2.8 The shutters shall be sampled as per criteria given in Appendix B of IS 2202 part I and tested as per detail given in clause 9 of IS 2202 part I for

a) End Immersion Test

b) Knife Test

c) Glue Adhesion Test

4.3 Fittings and fixtures

The fittings shall be as specified in BOQ or the drawings for door shutters. All fittings and fixtures shall be new, sound and strong, required screws for fixing shall be in the same colour and included in the pricing. Fittings and fixtures shall be as approved by the PM and conform to IS. Providing and fixing shall also include making grooves, chases, reinforcing, etc. Any fixtures damaged during fixing shall be removed and replaced with new one.

5.0 MEASUREMENT

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5.1 Shutters shall be measured in square meter for type and thickness as specified in drawing and BOQ.

5.2 The price for an item shall include supply of specified quality, quantity and type of timber, sawn, cut, jointed, framed and fixed in position including supply and fixing of approved anti-corrosive treated fixtures, straps, bolts, hold-fasts, spikes, nails, screws, etc. supplying and applying glue, coal tar, paint and anti-termite treatment. The item shall also include all materials, labour, scaffolding, use of equipment, etc.

5.3 Fixtures and fitting shall be as specified in the drawing or the BOQ.

5.4 If wood work is found to be defective due to bad workmanship, shrinkage, etc. within 1 year after completion of work, the defective wood work shall be re-fixed by the contractor at his cost to the satisfaction of the PM. This includes the repairs required to complete the work as it was finished earlier.

5.6 Glass shall be included in the price complying to specification given in BOQ.

6.0 GURANTEE

Contractor shall guarantee shutters and timber work for two year or warrantee as per main contract period against defective material, workmanship.

SECTION – 6/B

FALSE CEILING WORK

1.0 GENERAL

1.1 Indian Standards

Work shall be carried out to Indian Standards and Code of practices. In absence International standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference guidance only. Any discrepancies / conflict noticed shall be directed to the PM for his direction / approval. However, as a general rule more stringent specification shall take precedence.

1. IS 2547 Specification for Gypsum building plaster
2. IS 2818 Specification for Indian Hessian
3. IS 412 Specification for Expanded metal steel sheets for general purpose.

2.0 MATERIAL

2.1 Plaster of Paris ceiling tiles shall be reinforced with Hessians cloth. Maximum size shall be limited to 750 mm x 750 mm. Tiles shall be true and exact shape with clean and regular chamfers and shall give a ringing sound when struck. The exposed face shall be truly plane and smooth.

2.2 Metal lath shall confirm to IS and, as specified, wire netting for metal laths shall be galvanised.

2.3 Cementations sheets shall confirm to IS and shall be from approved manufacturer. Sheet shall be sound and free from defects.

2.4 Gypboard as manufactured by Saint-Gobain (Gyproc) or equivalent approved. Board shall confirm to CBRI certification. Gypboard are formed by enclosing and bonding together a core of set Gypsum plaster by two sheets of heavy paper. Board shall be fire resistant, light weight, strong, durable dimensionally stable, smooth surface finished such that ready to receive directly painting, wall papering.

2.6 Suspension System

2.6.1 For Gypboard False ceiling G.I. suspension system manufactured from pressed steel metal sheets such as angles, channels "Tee" etc. shall be used. GI wire and rawl plug fasteners shall be of approved size as per false ceiling drawing for desired location.

2.6.2 Aluminium sections suspension system with or without powder coating may also be used as specified and approved by the PM.

3.0 WORKMANSHIP

3.1 Suspension system

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3.1.1 Pressed GI metal sections in combination of GI wire/section hangers are fixed with anchor fasteners to ceiling providing basic hanging and suspension frame work. These are readily available or may be specially fabricated to suit site requirement. Hangers are provided @1200 mm c/c on both ways. Grid shall be adjusted to suit other requirements to approval of the PM.

3.2 Use special corner metal studs and special metal trim corner beads at acute and obtuse corners of inter-sectioning wall and partition.

Aluminium angles / Tees and channels suspended in combination of GI/Aluminium hangers are also provided for creating hanging and suspension framework.

3.3 Wooden frame work shall consist of main and cross batten of specified sections in approved shop drawing. The longitudinal and header scanting shall be arranged so that tiles can be fixed to form the panel arrangement. The frame work shall be treated with approved wood preservative lacquer.

3.4 False ceiling panels

3.4.1 False ceiling may be concealed type or with lay in panels as detailed in Bills of quantities. All lay in panels shall be fixed on back with non uplifting pins. False ceiling shall be finished as with POP or painting or may be pre finished decorative tiles.

3.4.2 Plaster of Paris ceiling tiles shall be fixed with brass screws. Gypboard and other material shall be fixed such that they are rustless and in combination of suspension or panels not going to cause any harmful effect or get detoriated. Fixing shall be approved by the Authority's Engineer / PMC.

3.4.3 False ceiling shall be provided to correct line, level with required finishes as specified.

3.5 Metal lathing Plaster

This shall be carried out to create a false ceiling or surface specially to cover up services behind it. Hence, all services must be tested and approved by the PM prior to this plastering.

3.5.1 The GI metal lath used shall be of a specified gauge. Lath shall be supported and stretched with long way of the mesh across the support before nailing. Support of timber batten depending upon the location shall be spaced but shall not be greater than 450 mm centre to centre. Metal lath shall be secured with wooden batten by GI staples or nails and 0.9 mm GI wire. Overlap shall be arranged over intermediate support and not in the corners.

3.5.2 Plastering in lathing shall be carried out in two coats. The first coat shall be with stiff consistency mortar, applied uniformly with a trowel and keyed. It shall be allowed to harden and dry for a minimum period of 3 days. The second coat shall be applied in the usual manner of plastering and finished as specified. Both coats shall be wet cured as detailed earlier.

3.6 Points to be checked are

3.6.1 It shall be responsibility of the false ceiling contractor to prepare coordinated reflected ceiling layout and get approved prior to start. He shall be responsible to provide and arrange required service doors, cut outs, fixing arrangements to receive light fitting, AC diffusers, Grills, etc.

3.6.2 Prior to start of false ceiling services work above false ceiling is completed.

3.6.3 Edge angle are fixed to correct line and level.

3.6.4 Hangers are located allowing movement of services within false ceiling.

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3.6.5 Main and secondary runners are spaced with due care and perfect rigid frame work is achieved to correct line and level.

3.6.6 False ceiling panels shall be fixed with suspension by GI screws/pin etc. Joints shall be well treated and neatly finished as detailed.

4.0 MEASUREMENTS

Measurement for false ceiling shall be in square metre area in plan only. All up stands or vertical fascias forms part of false ceiling in continuation of the same ceiling; shall not be measured separately.

False ceiling to include

- Required suspension system
- Required false ceiling material
- Required arrangement to receive light fittings, fixtures, AC grills, diffusers, etc.
- Required access service door / shutter
- Masking tape

Required finishing with POP or approved filler or painting or polishing as case may be.

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SECTION – 6 / C
STEEL DOOR FRAMES AND SHUTTERS

1.0 GENERAL

1.1 INDIAN STANDARDS

Work shall be carried out to Indian Standards and Code of practices. In absence International standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies / conflict noticed shall be directed to the PM for his direction / approval. However as a general rule more stringent specification shall take precedence.

1	IS 226	Structural steel (Standard quality) superseded by IS 2062:1992
2	IS 277	Specification for galvanized steel sheets
3	IS 1367	(Part 1-19) Technical supply conditions for threaded steel fasteners
4	IS 1977	Structural steel (ordinary quality)
5	IS 2062	Steel for general structural purposes
6	IS 4351	Specification for steel door frames
7	IS 4736	Hot - dip zinc coating on mild steel tubes

1.2 Quality Assurance

1.2.1 Material used shall conform to IS. It shall withstand stresses and strains to which it is subjected.

1.2.2 Fabrication, assembly, erection, fastening, etc. shall be in accordance to details approved by PM.

1.2.3 Manufacturer shall have minimum five years experience in these products. Works shall be carried out under qualified supervisions.

1.3 Submittals.

1.3.1 Products

a) The contractor shall submit detailed catalogues, literature for products proposed to be used by him. He shall submit detail comparison for properties, test etc specified in BOQ and those of products he intends to use.

b) Certificate of manufacturer of products that it conforms or exceeds specification given in contracts and its suitability for use.

c) Manufacturer and the contractor shall give guarantee for performance and durability.

1.3.2 Shop drawing

The contractor shall submit including required designing shop drawing for doorframes, shutters complete with

- Plan, elevation with relative position of adjacent works
- Details of tracks, guides, rollers, hood, locking arrangement

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- Full size details with specification of materials, sizes spacing of welds, screws bolts, rivets, anchors etc.
- Construction, fabrication and erection details
- Fitting and fixtures with type size, brand and fixing details.
- Finishing details

1.3.3 Samples

Samples of following shall be submitted along with submittals

- Frame corner 300 x 300 mm with corner construction and finish
- Shutter frame corner with inner construction details, stiffening, its welding, riveting, bolting, insulation etc.
- PVC / neoprene beadings
- GI anchors
- Fittings and fixtures

2.0 MATERIALS

2.1 Structural steel

Steel structures subjected to dynamic loading, where fatigue, wide fluctuation of stresses expected and reversal of stresses expected steel conforming to IS 226 and 2062 shall be used. Rolled and finished steel section's dimension and weight shall conform to IS 1852 and shall be within permissible tolerances. Steel sections shall be free from rust, scaling/pitting, cracks, surface flaws laminations, rough and imperfect edges and all other harmful defects. Mechanical and chemical properties shall be as per IS.

2.2 Rivets

Rivets used in work shall conform to IS 1148. It shall be free from defects, excessive rust, and scaling/pitting. They shall be well protected and securely stored at site.

2.3 Bolts

Bolts conforming to IS 1367 shall be used. Bolts may be turned and fitted or black bolts. Bolts, nuts shall be free from excessive rust, scaling/pitting, crack or any other defects. They shall be with sharp, defined threads and heads. They shall be well protected and securely stored at site.

2.4 Electrodes

Covered welding electrodes conforming to IS 814 shall be used in metal arc welding. Electrodes shall be fresh and packed in watertight packing as received from manufacturers with date of manufacture. They shall be stored in damp proof store.

2.5 Fittings and fixtures

Fittings and fixtures shall be with IS mark and as required for respective locations. Thickness, size shall be as specified and the contractor shall ensure that material withstands the type of loading they are subjected to

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Finishing of fittings and fixtures shall be in conformity to specification. Also it shall be noted that fitting and fixtures material are compatible and no harmful electrolytic / anodic actions are likely to take place.

2.6 Screws, bolts, nuts etc shall be compatible with fitting and fixtures provided.

2.7 Delivery, storage and Handlings.

2.7.1 Fabricated products shall be handed over and transported to site with precautions not to damage, bend, dent, sag etc.

2.7.2 Fabricated finished product shall be received with self-adhesive protective coating prior to being transported to site.

2.7.3 Store all material is dry, lockable ventilated place. Material shall be placed on runners/packing and they are off the ground minimum 150mm.

2.7.4 Inspect material received for dimension, quality and finish. Replace all damage materials immediately. All acceptable material shall be repacked and stored.

2.7.5 Special care shall be taken to store glass.

3.0 SCOPE OF WORK

Providing, designing, drawing, fabricating, shifting and installation of steel door frames and shutters and shutters with accessories such as anchorage, fittings, fixtures finishing etc complete as per specification, conforming to IS and as accepted and approved by the PM to his entire satisfaction. Item proposed under this shall be

- Pressed sheet metal door frame
- Pressed metal sheet shutters

4.0 WORKMANSHIP

4.1 General

4.1.1 Fabrication shall be carried out only after approval to shop drawings by PM. Work shall be carried out at factory and shall be with proper tools and tackles and complying with Engineering practices. Factory shall be accessible to Architect's and PM's representative at all times. Points to be noted are

4.1.2 Cutting

Cut shall be by sawing, shearing or blanking. Flame cutting shall be avoided. However if permitted, cut edges shall be ground back to clean, smooth edges. Cut shall be accurate, clean, sharp, square and free of burrs, without deforming adjacent surfaces of metals.

4.1.3 Holes

Holes shall be drilled or cleanly punched to achieve accurate, clean, neat and sharp without deforming adjacent surfaces of metals. Gas cutting of hole not permitted.

4.1.4 Junctions / Assembly

Connections and junctions shall be located as approved in drawings. Connections shall be tight joints capable of developing full strength within members. Joints and connections shall be flush

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unless specified differently. In exposed condition where required water draining arrangement shall be provided. Provision for thermal movement jointing shall be provided at locations approved by the PM.

4.1.5 Welding

Welding shall be in accordance with recommendations of the Indian Standard code of practice. Welder shall be trained and certified as per IS 817. Work shall be done with electrodes and/or methods recommended by the manufacturers of the metals being welded. Welds shall be continuous, except where spot welding is specifically permitted.

Exposed welds shall be finished free of imperfections such as pits, runs, splatter, cracks, wrapping, dimpling, depressions or other forms of distortion, discoloration. Exposed welds shall be ground flush and dressed smooth to match adjoining surfaces.

4.1.6 Bolts and Screws

Threaded connections shall be with tight threads entirely concealed. At exposed locations lock nuts, bolts and screw heads, shall be flat and countersunk. Cut off projecting ends of exposed bolts and screws flush with nuts or adjacent metal.

4.1.7 Site fixing

Work shall include providing and fixing nonferrous anchor bolts / insert plates, plates or other anchoring devices for fixing into or to concrete, masonry or other trades of work. All these shall be with approval of the Architect and the Authority's Engineer / PMC.

4.1.8 Finishing

Work shall be clean, free from dirt, stains, grease, scratches, distortion, waves, dents, buckles, tool marks, burrs, etc. and defects which mar appearance of finish work.

4.1.9 Mock-up Samples

The contractor shall prepare mock-up samples as per approved shop drawing. Mock-up samples shall be to full size and shall be true representation of actual works to be carried out at site.

4.2 Pressed metal sheet frames

4.2.1 Pressed metal sheet frames shall be fabricated out of 16 gauge Stainless steel as specified. Frames shall be single or double rebated as per architectural details. Rebate sizes shall be suitable for shutter thickness and minimum tolerance required.

4.2.2 Doorframes shall be prepared by pre-punching sheets to receive hinges, tower bolts, shock absorbers. These shall be further strengthened and required arrangement by tapping to fix screws to secure hinges, tower bolts, aldrops, lock striking plate, door closure etc. Location of all fittings and fixtures shall be as per IS code or as detailed in shop drawing and as approved by PM.

4.2.3 All punched locations shall be guarded by suitable size mortar guard to keep pockets free for unhindrance performance of the fittings and fixtures.

4.2.4 Rubber buffers shall be fitted within rebates minimum six numbers per frame.

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4.2.5 Frames shall be welded or fixed rigidly together by mechanical means. Frames shall be kept in correct shape by providing right angle corner plates and tie bar/rod at bottom during transport and till fixed, grouted and secured.

4.2.6 'T' shape hold fast of GI strips 225 mm long with split ends shall be provided by manufacturer of the frame.

4.2.7 Frames shall be fixed in position to correct line, level and plumb. All door shutter tops shall be aligned in one level. Frames shall be braced and supported when masonry is in progress. Hollow portions of frames shall be filled up with lean cement concrete mortar simultaneously. Holdfast shall be provided along with masonry and grouted in concrete 1:3:6 (250mm x 100mm high x Wall width). Bracing and supports of frames shall be removed only when masonry and grout within hollow metal frame is set.

4.2.8 Frames shall be measured in running meter of frame along concrete line of frame.

4.2.9 Rate shall include

- Material
- Labour
- Handling
- Fixing
- Grouting including cement grout material
- Protecting till handing over to the Employer

4.2.10 Construction

Frames shall be welded or rigidly fixed together by mechanical means. Frames shall have door threshold or shall be provided with temporary base tie by screwing to keep in correct position. Required corner plate also shall be provided to keep the frames at right angles.

- Frames may be supplied welded or in knock down condition.
- Frames shall be supplied with GI holdfast suitable for the profile of the section and length of the hold fast shall be of 225 mm long.
- Frame shall be primed with special etched primer. Further it shall be primed and painted as per specification or system specialist.
- Frame shall be installed and fully grouted with cement concrete mix 1:3:6.

4.2.11 Frames and shutters shall be finished as specified. In case factory finish shutters are received same shall be protected with self adhesive coating prior to receipt at site.

4.2.12 Frames and shutters shall be protected and maintained till completion of project.

4.2.13 Measurements

a) Frames and shutters shall be measured in square meter out to out.

b) Item to include

- Designing
- Material
- Labour

- Fitting and fixtures
- Handling
- Fabrication
- Erection
- Finishing
- Maintenance
- Warranty for One year

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SECTION – 6 / D

ALUMINIUM JOINERY

1.0 STANDARDS

1.1 Work under this contract shall be carried out to following Indian or International standards. Any conflict noticed in various standards and building regulations shall be reported to the PM and his direction and approval to be obtained. However it shall be noted as general rule that the more stringent specification shall apply. All standards shall be the latest revisions.

1.	IS 456-2000	Plain and reinforced concrete.
2.	IS 875 (Part I, II, III)	Designed loads for building structures.
3.	HE9 WP (IS 63400 WP)	Aluminium Extrusion
4.	IS 1608	Tensile strength
5.	IS 1948	Specification for aluminium doors, windows and ventilators.
6.	IS 2853	Specification for toughened glass.
7.	CP 118	Structural use of Aluminium
8.	ASTM C 1046	Standard specification for Heat treated float glass FT and HS coated and uncoated glass.
9.	IS 3548	Glazing in building
10.	IS 3921	Aluminium channels

1.2 Quality Assurance

1.2.1 Manufacturer shall certify that sections extruded conforms IS / BS / ASTM standards specified.

1.2.2 Manufacturer shall have minimum ten years experience in extrusion.

1.2.3 The design engineer of the contractor shall have minimum five years experience in designing similar work.

1.2.4 The Contractor's design engineer shall certify that design meets standards, are safe and acceptable to local authorities.

1.2.5 Obtain aluminium through one source for each type.

1.3.0 Submittals

1.3.1 The Contractor shall submit detail literature, catalogues along with certification that material meets or exceeds standards specified.

1.3.2 The Contractor shall submit design calculations for every unit and shall include method of statement for fabrication, installation.

1.3.3 Shop drawings

Shop drawings shall be complete with following

a) Fully dimensioned plans and elevations with detail co-ordination keys.

b) Locations of exposed fasteners and joints.

c) Indicate fabrication, installation and finish of specified systems.

Details shall be complete with following

- Members dimensioned.
- Joint connections for framing systems for doors, windows, louvers etc.
- Anchorage.
- System reinforcements, if any
- Expansion and contraction provisions, if any.
- Hardware including locations, mounting heights, reinforcements and special installation provisions, if any.
- Glazing methods and accessories.
- Notes on Internal sealant requirements and recommended types.

1.3.4 Contractor shall submit proforma of warranty from various manufacturers / suppliers for approval.

1.4 Delivery, Storage and Handling

1.4.1 Doors and frames cardboard wrapped and crated to provide protection during transit at site store. Additional care shall be taken to prevent damage to factory finish surfaces.

1.4.2 Inspect door frames and shutter on receipt at site to notify damage to supplier if found. Minor damages shall be repaired at site provided refinishes items match new work and acceptable to the PM. Remove and replace damage item that cannot be repaired.

1.4.3 Store all material in dry lockable, ventilated shed. It shall be stored on wooden runners / packings and shall be off the ground minimum 150mm. In case of package damaged and wet during transit replace with new dry once.

2.0 MATERIAL

2.1 Aluminium



2.1.1 Aluminium Extrusion shall be of fully heat treated aluminium alloy confirming to IS (63400 WP/HE9WP) or equivalent BS standards 6063- T5. Framing material shall comply as under

For extrusion Alloy to BS 6063 - T5 or T6, and ASTM B221

For sheets Alloy to BS 5005 - H16 and ASTM B 209

Other alloys and temper recommended by the manufacturer appropriate for specified finish.

Minimum thickness 2.0 mm for framing members and rails, 1.8 mm for sheets and for glazing stops and similar components. Glazing beads shall be screw less type fitted into the frames.

2.1.2 The extrusion shall be clean, straight and sharply defined lines. It shall be free from distortion and defects impairing strength, durability and appearance. Profiles shall be able to meet required strength in respect of tensile, shear and bending stresses. They shall be rigid and capable of providing local and lateral stability.

2.1.3 Internal reinforcement if any shall be of hot dip galvanized steel bars / pipes with separators to withstand designed criteria.

2.1.4 Polyester Powder Coating

Polyester Powder Coating should be confirming to minimum requirements as per BS6496. The powder coating system should be applied with the following minimum

Dry film thickness (DFT) should be minimum 60 micron

In two coat system is used, the top coat should be of minimum thickness of 25 micron.

The coating should be free of flow lines, streaks, blisters, pin holes, tears, damages or any other surface defects.

Coating system to be applied by an approved applicator of polyester powder manufacturer and agreed by the PM. To ensure consistency of appearance single supplier and applicator should be used for the entire project.

2.2 Fasteners

2.2.1 All fixing anchor, bolts, screws, nuts, washers or other miscellaneous anchoring / fixing devices shall be of non-magnetic stainless steel or other non corrosive materials compatible and approved by PM. These materials shall be compatible with finished aluminium used in work and shall provide adequate strength.

1. Exposed conditions : Stainless steel with EPDM or Neoprene Gasket washers.
2. Concealed Conditions : Steel or Cadmium plated

2.2.2 Where screws, bolts or other fastenings are exposed they shall match the colour of the metal with which they are used.

2.2.3 All concealed fastenings that are not required to be stainless steel shall be hot dipped galvanized steel.

2.3 Separators

Separators between steel and aluminium members where required shall be rigid type, high impact resistant, smooth both sides Teflon with a minimum thickness of 0.8mm as approved by the PM.

2.4 Sealant.

2.4.1 Sealant shall be silicone Sealant as manufactured by Dow Corning corporation or equivalent and / or other equivalent approved compatible with aluminium, glass and adjoining works.

2.4.2 All sealant applications must be clearly designated on the applicable shop drawing details and referenced to a master sealant schedule specifying materials, special instructions and application procedures.

2.4.3 The sealant shall be quality controlled one part low modules silicone confirming to BS 5889. Structural silicone shall only be factory applied selected colour silicone to PM's approval.

2.4.4 Runs of sealant to joints between frames and structure shall not be less than 6mm width and thickness and where greater than 6mm width the depth shall not be less than half the width.

2.4.5 Joint fillers and back-up materials shall be polyethylene foam, sponge neoprene as per the written recommendations from the approved sealant manufacturer for each specific application. Shape, size, hardness, compatibility, and bond breaking requirements are all factors to be considered.

2.4.6 All sealant must be non-staining and compatible with adjoining and/or adjacent sealant, back-up materials, substrate materials and their respective finishes and/or applied colour coatings.

2.5.0 Aluminium Flashings

Aluminium sheets conforming to BS and ASTM shall be minimum 1.012 mm thick. Pre-pressed, cut to correct length flashing for each location of window sills shall be factory coated in approved shade and colour.

2.6.0 Ironmongery

2.6.1 Fittings and fixtures (Ironmongery) shall be installed with all necessary / required best quality hardware. It shall be matching to adjacent powder coated finishes. All ironmongery used shall be approved by the PM prior to being installed and shall be noted accordingly in shop drawings. All Samples and catalogues for Ironmongery shall be submitted by the contractor along with shop drawings.

2.6.2 All locks to be used shall be with arrangement to receive master key cylinders and contractor shall co-ordinate with the Employer prior to window being notched and back body being provided for approval of the PM.

2.7.0 Glass

2.7.1 Glass shall be single or double insulated hermetically sealed.

2.7.2 Glazing shall be as noted for in BOQ and Drawings for each unit. The thickness shall be as per design requirements considering all factors.

2.8.0 Gaskets

The gaskets shall be EPDM or Neoprene. It shall be high resistance to aging, prolong periods of compressive stress, ability to recover from compression deformation, to allow joint movements.

2.9.0 Scaffolding / Hoisting

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2.9.1 The Contractor shall be responsible to provide, erect and remove double legged steel scaffolding. Scaffolding shall be rigid, strong and suitable for work. It shall provide access to all places.

2.9.2 The contractor shall be responsible to provide required hoisting equipments to lift and transport glass at various levels to approval of the PM.

3.0 SCOPE OF WORK

3.1 The Contract is for, and the contractor shall be responsible for design, prepare shop drawings based on actual site measurement, fabricate, supply, install of all items based on concept architectural drawings and specification given for guidance. It shall be responsibility of the Contractor to propose his own design which meets the requirements and passes the tests specified. Further he shall take responsibility to complete work and guarantee as per approved design, shop drawing by the PM.

3.2 In brief list of items to be included are summarised but should not be taken as complete and conclusive.

- Design Aluminium window, doors etc.
- Glass and glazing as specified.
- All anchors fixing, attachments, reinforcement for mullions and transoms.
- Sealants within and around perimeter of all work.
- Interface with adjacent systems.
- Heavy duty hardware with friction stay hinges for hold open facility as required
- Weather strips as required.
- EPDM or Neoprene gasket
- Providing and paying for all samples, mock ups, tests within or off site.
- All labour, supervision and quality control.
- Scheduling and monitoring of the work.
- Coordination of work with main contractor and other trades.
- Storage and handling, protection and cleaning.
- Testing during and on completion including paying for all test.
- Guarantee the work and materials.

3.3 Design Criteria

3.3.1 The various aluminium extruded sections shall be designed as per IS codes

- Wind pressure at 150 kg/sq m.
- Dead loads
- Live loads.
- Loads due to climatic conditions.

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- Maximum deflection of exterior member shall not exceed 1/200 of the span of the member or 19 mm whichever is less.
- Make provisions for water entering at joints and condensation occurring within wall construction to drain to exterior face.

3.4 Submittals

3.4.1 Contractor shall submit design calculation along with method of statement and shop drawings meeting criteria specified.

3.4.2 Shop drawings

Shop drawings shall be complete with following

a) Fully dimensioned plans and elevations with detail co-ordination keys.

b) Locations of exposed fasteners and joints.

c) Indicate fabrication, installation and finish of specified systems.

Details shall be complete with following

- Dimensioned members.
- Joint connections for framing systems for doors, windows, louvers etc.
- Anchorage.
- System reinforcements, if any
- Expansion and contraction provisions, if any.
- Hardware including locations, mounting heights, reinforcements and special installation provisions, if any.
- Glazing methods and accessories.
- Notes on Internal sealant requirements and recommended types.

3.4.3 Samples

The contractor shall submit for approval two sets of labelled samples of each required material for aluminium, glass, Ironmongery fabricated together in 300 x 300 L-shaped section. These shall be in specified colour and shall be exact representative of actual material to be used. All catalogues, test reports and other details of product from proposed manufacturer shall be submitted for approval of the PM. Also submit sealant product information and colour for approval by the PM.

3.4.4 Contractor shall submit proforma of warranty from various manufacturers / suppliers for approval.

3.5 Mock - up

3.5.1 Contractor shall prepare full size mock - up for typical window and install at location approved by the PM for his final approval at no extra cost to the contract.

3.6 Testing

The PM reserves the right to get actual test of following to be carried out at site / off site from independent laboratory at the contractors cost prior to approval.

a) Structural test under uniform static pressure.

b) Preliminary loading

c) Air infiltration.

d) Water infiltration under static pressure.

4.0 WORKMANSHIP

4.1 On approval of shop drawing the contractor shall check actual site dimensions of opening on site and accordingly manufacturing shall be carried out in consultation of PM. He shall prepare shop drawing to these dimension and get approved co-ordination required to suit conditions.

Approval of shop drawing does not absolve the contractor of his responsibility nor fulfilling his obligation in meeting requirements as specified and performance with guarantee as required.

Further no claims for extra cost on account of changes to shop drawing or actual execution are carried out shall be payable unless basic design criteria or concept drawings are revised by PM.

4.2 All joints in frames shall be machined and fitted to form hair line joints prior to assembly. Electrically welded joints shall be prepared but mechanical joints shall be permitted. All corners, junctions, shall be mechanically cleated and assembled to provide strong and rigid frame work. Joints shall be sealed. Required permissible tolerance for expansion and contraction shall be provided. The jointing accessories such as cleats, brackets, etc. shall be of such material as not to cause any bimetallic action. All accessories shall be such that they are fully concealed.

4.3 The fabrication of windows shall be done in suitable parts / sections to facilitate easy transportation, handling and installation. Adequate provision shall be made in the window members for anchoring to supports and fixing of hardware and other fixtures as approved by the PM.

4.4 Glass

4.4.1 The contractor shall cut glass sizes by field measurements or dimensionally approved shop drawings. The responsibility for correct glass sizes shall rest with the contractor. No cracked, chipped or disfigured glass shall be accepted.

4.4.2 Glazing shall be carried out with following precautions

1. Glazing work shall be carried out through experienced skilled workmen conforming to best practices. All instructions of glazing manufacturer shall be followed.
2. Tong marks shall be concealed within rabbet.

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3. Glazing rabbets shall be clean, dry and free from any material that might adversely affect the bond and seal of glazing materials or the drainage.

4. Glass shall be centred in each opening to provide recommended clearances. Setting blocks shall be at least 10 mm in thickness and full width of rabbet and placed at glass quarter points. They shall be of a type and length recommended by the glass manufacturer.

5. Exposed sealant shall be tooled smooth and top surfaces sloped to drain water away from glass.

6. Beads sealant, tapes, etc. used shall be mitred at each corner.

7. Glass shall have safety marking as approved by the PM at eye level.

8. Installation completed shall be sound, watertight, free from defects and to acceptable standard of PM.

4.5 Joints around aluminium work and building such as at heads, jams, sills between masonry / concrete etc. shall be grouted with silicone sealants.

4.6 Doors shall be fitted with approved hardware and operating devices. Mechanisms shall be such that they operate smoothly and freely without noise and excessive friction and shall be adequate for intended purpose. Doors and sashes shall be hung on aluminium butt hinges. Lock set shall be of approved quality and with provision to receive master key cylinder if to be provided by the Employer. They shall be with required type of handles.

In sliding units, adjacent aluminium members shall not slide upon each other. They shall be separated by material which does not interfere with sliding action.

All external shutters shall be fully water tight. Glazing of shutters shall be from inside, secured by aluminium beads fitted into extruded frames and sealed with EPDM or Neoprene gaskets in vertical and horizontal direction.

Spring shutters shall be hung on pivot / floor springs. Springs can be single or double action as required. For double leaf shutters one shutter must be provided with concealed two tower bolts.

4.7 Fixed glazing shall be from outside and shall be secured with aluminium beads fitted into extruded frames and EPDM or Neoprene gaskets. It shall be ensured that it is fully water-tight and secured.

4.8 Louvers shall be as per design and shall be such that it prevents any back flow of rain water into the interior of the buildings under any conditions. Provides mosquito and bird screen.

4.9 Antigalvanic Action

4.9.1 Isolate dissimilar metal surfaces to prevent galvanic action. Materials used for this purpose shall be non-absorptive.

4.9.2 All steel parts shall receive a protective treatment commensurate with their respective functions. The treatment shall be one or more of those described above, and approved by the PM.

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4.9.3 Aluminium surfaces in contact with mortar, concrete fireproofing, plaster, masonry and absorptive materials shall be coated with an anti-galvanic, moisture-barrier material.

4.10 Sealant and Gasket Applications

4.10.1 Sealant and gaskets shall be provided where shown on the drawings or required for a permanently watertight installation.

4.10.2 The design of all sealed joints shall be in accordance with the recommendation of the sealant and/or gasket manufacturer.

4.10.3 Protect all adjoining surfaces not to receive sealant and gaskets against staining by masking and/or other methods.

4.10.4 Joints and joint surfaces shall be clean, dry and free of any material that may have an adverse effect on the bonding and/or seal of the sealant and gasket materials.

4.10.5 Apply sealant and gaskets under the conditions recommended by the manufacturers. Prime all surfaces to receive sealant and gaskets unless recommended otherwise, in writing, by the Manufacturers. Use no sealant that has started to set in its container or a sealant that has exceeded the shelf life published by the manufacturer.

4.10.6 Fill all joints continuously and completely with sealant, forming a neat, uniform, concave bead. Finish the material flush with adjoining flush surfaces unless otherwise shown on the drawings. All sealant surfaces shall be tooled smooth.

4.11 Gaskets

Provide and install EPDM or Neoprene Gaskets of approved size and profile at all locations as called for to render the windows absolutely air- tight and weather tight. Produce samples of the gaskets for approval and procure after approval only.

4.12 Storage and Handling

4.12.1 Wherever possible all materials shall be stored in dry, well- ventilated conditions prior to fabrication.

4.12.2 No metal or glass shall be left exposed to the external elements prior to fabrication.

4.12.3 Adequate storage facilities must be provided for all materials prior, during and following fabrication. The Contractor is to submit full details of these facilities for the approval of the PM.

4.12.4 No materials or assembled units are to be left exposed to adverse weather conditions prior to erection at site.

4.12.5 Handling of glass shall be kept to a minimum and all glass shall be carefully protected from soiling and from condensation and other moisture.

4.13.1 All work shall be erected / installed to correct line, level, plumb and fastened securely in correct vertical and horizontal alignment.

4.13.2 Full survey record for site work shall be submitted to PM and required measures if any taken shall be noted on shop drawings with approval of the PM.

4.13.3 Proper lighting and safety equipments such as safety belts, helmets etc. shall be provided and strict observation shall be done.

4.13.4 Contractor shall supply suitable tools to enable the installation to proceed safety and to the highest standards.

4.14 Double legged, self supporting and accessible at all location. Scaffolding as required for the work shall be provided by the contractor to the approval of the PM.

5.0 INSPECTION

All shop and field materials and workmanship shall be subject to inspection by the PM at all times. These inspections shall not relieve the Contractor from the obligation to provide materials conforming to all requirements of the Contract Document and matching approved samples. The Contractor/Specialist shall promptly correct any deficiencies reported and carry out his own control measure for all materials whether inspected or not.

6.0 TEST

6.1 The contractor shall provide all test instruments and other temporary provisions to enable the test to be carried out on the works so specified. In typical portions the work shall be physically tested in accordance with specification and actual by throughing water with hose pipe. Area to be tested shall be directed by the PM.

6.2 The Contractor shall give reasonable notice of the tests in writing, to the PM, who shall have the option of being present at all such tests.

6.3 Complete records of the tests (whether successful or unsuccessful) shall be maintained by the Specialist. Preliminary copies shall be issued to the PM to whom, at the conclusion of all such tests, the Contractor shall supply two bound and compiled sets of all results.

6.4 In the event that such testing should result in uncontrolled leakage, the Contractor shall eliminate the causes of such leakage at no additional cost to the Employer. Remedial measures must maintain standards of quality and durability and are subject to approval. Provide powered scaffold, hose, and sufficient personnel to operate scaffold and hose.

6.5 Acoustic levels shall be checked with decibel meter.

6.6 PM, if dissatisfied or on account of any reason attributable to the Contractor shall neither be eligible for any payment nor shall have recourse to approval. He shall not be eligible for any claim on the employer.

7.0 CLEANING

7.1 The Contractor shall ensure that all actions are taken during installation to eliminate the effects of corrosive substances on the finishes.

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7.2 The Contractor shall clean both internal and external surfaces to remove corrosive substances, dust or cement/mortar dropping during the installation as may be directed and instructed by the PM.

7.3 The internal surfaces of glass and aluminium frame are to be cleaned with compatible cleaning agents prior to the installation of the internal protective sheeting.

7.4 The Contractor shall provide written verification that cleaning agents are compatible with aluminium, stainless steel, glass coatings, granite, glazing materials and sealants. In no case shall alkaline or abrasive agent be used to clean the surface. Care shall be taken during cleaning to avoid scratching of the surface by grit particles.

7.5 Prior to snagging inspections the Contractor shall, remove the internal protection sheets and carry out a thorough cleaning of all glass and aluminium.

7.6 The Contractor shall also make good any physical damage to the structure including scratches, dents, abrasions, pitting, etc. to the satisfaction of the PM.

7.7 Manufacturer's delivery or job markings on glass and adhesive for manufacturer's labels shall be either a neutral or slightly acidic material. In no case shall such material be alkaline; any staining of glass by alkaline material will be cause for rejection of the glass.

7.8 After the installation of each pane of glass all markings and labels shall be carefully and completely removed from the panes. Thereafter no markings or labels of any sort shall be placed on the glass.

7.9 Glazed openings shall be identified by suitable warning tapes or flags attached with a non-staining adhesive or other suitable means to the framing of the opening. Tapes or flags shall not be in contact with glass.

7.10 As soon as it is practically possible after the issuance of the occupation Permit for the Building, the Contractor is to carry out a complete cleaning of the external face.

8.0 WARRANTY

Prepare and submit in accordance with contract for

1. Warranty jointly signed by manufacturer, installer and Contractor agreeing to repair and/or replace assemblies which fail in material or workmanship during warranty period of 10 years.
2. Warranty stating insulated glass units to be free from condensation, fogging and obstruction of vision due to film on internal surface for 10 years.



9.0 MEASUREMENTS

9.1 Frame Work

9.1.1 The length of each extruded section used for fabrication of the door / joinery shall be measured correct to 1 mm. In case the sizes of doors / joinery that are manufactured, happen to be the sizes specified in the drawings, only the theoretical dimensions arrived by reducing the overall sizes should be considered.

9.1.2 The weight of material used shall be calculated on the basis of actual weight of extruded sections used for fabrication and shall be compared with the weights given in the manufacturer's catalogue, subject to the condition that the variation in actual weight should not exceed ± 10% than the weights specified in manufacturer's catalogue, payment shall be made for the actual weight of the extruded section. The final weights shall be calculated in kgs up to two places of decimal.

9.2 Glazing : Length and width of opening for glazing inserts shall be measured correct to a cm and area for payment shall be calculated in sqm nearest to 0.01 sqm.

9.3 Panelling with different types of materials : Length and width of opening for glazing inserts shall be measured correct to a cm and area for payment shall be calculated in sqm. nearest to 0.01 sqm.

9.4 Panelling with Aluminium sheet : The length and breadth of the panel inserts shall be measured correct to a cm and the area calculated to the nearest 0.01 sqm. The weights of panel used shall be calculated :

i) As per manufacturer's catalogue.

ii) The actual weight of sample of sheet used should be found out and weight of panel actually used. (Actually calculated weight shall be recorded subject to condition that variation in actual weight shall not exceed ± 10% than weight specified in the manufactures catalogue).

9.5 Fittings : All fittings for doors / joinery except hinges and handles shall be enumerated.

9.6 Item to include the cost of material and labour for all operations described above except the coast of glazing and panelling. It shall include screws expansion hold fastener, snap beading including filling with necessary PVC / neoprene felt, cleats etc. The rate does not include the cost of fittings except hinges and handles.

9.7 Item to includes the cost for providing aluminium alloy doors / joinery for the openings of all shapes and sizes.

9.8 The cost of glazing, panelling and additional fittings shall be paid under separate item, as described herein.

9.9 Item to include for windows in openings of all shapes including circular, segmental or other shapes and sizes.

9.10 Item also include the cost of automatic closing latch in the sliding window while manufacturing.

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SECTION – 6 / E
FITTINGS AND FIXTURES

1.0 GENERAL

1.1 Standards

Work shall be carried out to Indian Standards and Code of Practices. In absence International Standards shall be followed. These shall be latest issue. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies/conflict noticed shall be directed to the PM for his direction/approval. However as a general rule more stringent specification shall take precedence.

(1)	IS 204	Specification for tower bolts
	Part – 1	Ferrous metal
	Part – 2	Non-ferrous metal
(2)	IS 205	Specification for non - ferrous metal butt hinges
(3)	IS 208	Door handles
(4)	IS 281	Specification for mild steel sliding door bolts for use with padlocks
(5)	IS 362	Specification for Parliament hinges
(6)	IS 363	Specification for hasps and staples
(7)	IS 364	Fanlight catch – Specification
(8)	IS 452	Specification for door spring rat tail type
(9)	IS 453	Double acting spring hinges – Specification
(10)	IS1019	Specification for Rim latches
(11)	IS 1341	Steel butt hinges – Specification
(12)	IS 1823	Specification for floor door stoppers
(13)	IS 2209	Specification for mortice locks (vertical type)
(14)	IS 2681	Non-ferrous metal sliding door bolts (aldrop) for use with pad locks
(15)	IS 3564	Hydraulically regulated door closers – Specification
(16)	IS 3818	Continuous (piano) hinges – Specification
(17)	IS 3843	Steel back flap hinges
(18)	IS 3847	Mortice night latches – Specification
(19)	IS 4621	Specification for indicating bolts for use in public baths and lavatories
(20)	IS 4992	Specification for door handles for mortice locks (vertical type)

(21)	IS 5187	Specification for flush bolts
(22)	IS 5899	Specification for bath room latches
(23)	IS 5930	Specification for mortice latch (vertical type)
(24)	IS 6315	Floor springs (hydraulically regulated) for heavy door – Specification
(25)	IS 6343	Specification for door closers (Pneumatically regulated) for light door weighing upto 40kg
(26)	6607	Specification for rebated mortice locks (vertical type)
(27)	IS 7196	Specification for hold fast
(28)	IS 9197	Specification for double action floor springs (without oil check) for heavy doors
(29)	IS 7534	Specification for sliding locking bolts for use with padlocks
(30)	IS 7540	Specification for mortice dead locks
(31)	IS 8756	Specification for ball catches for use in wooden almirahs
(32)	IS 8760	Specification for mortice sliding door locks with lever mechanism
(33)	IS9899	Specification for Hat, coat and wardrobe hooks
(34)	IS 10090	Specification for numericals
(35)	IS 12817	Stainless steel butt hinges – Specification

1.2 Fittings

1.2.1 Fittings shall be of M.S., brass, aluminium or stainless steel as specified. These shall conform to respective IS and for duty to be employed. Fittings shall be smooth, free from sharp edges, corners. flaws and other defects. Holes for screws shall be counter sunk finish.

Finish of M.S. shall be chromium plated, copper oxidised (black finish) or black enamelled painted.

Brass shall be chromium plated, bright satin finish or copper oxidised.

Aluminium fittings shall be dyed anodic coating grade not less than AC10 of IS 1868.

Screws for fittings shall be of same metal as of fittings and same finish. Aluminium fittings shall be fixed with brass CP or stainless-steel screws.

1.2.2 All fittings shall be conforming to IS standards applicable. Sampling shall be as specified for each case. Material, workmanship, manufacturing and finish shall conform to IS or exceeds minimum requirement given. All fittings shall be "ISI" marked or approved manufacturer by the PM.

2.0 HOLD FAST (HOTDIP GALVANISED)

Hold fast shall conform to IS 7196

Hold fast shall be fabricated out of M.S. flats 40x5mm thick 300mm long. These shall free of dents and burns. M.S. flat bent at one and 50mm with a counter sunk hole of 11mm dia to

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received wood screws. 100mm long other end shall be forked and bent right angles in opposite direction fabricated hold fast shall be hot-dip galvanised. Hold fast shall be grouted into cement concrete mix 1:3:6 size of block to be 300x100x150mm high.

Generally the Rate of Frame shall be inclusive of holdfast otherwise it shall be measured in numbers.

Each hold fast shall be clearly and permanently marked with the name of the manufacturer or his trade-mark, if any.

The product may also be marked with Standard mark.

3.0 HINGES

Material and finish shall be as specified in drawing or BOQ. These may be light duty, medium duty or heavy duty and as per location. These shall be fabricated from plates, cast or extrusion as case may be, but shall be strong and free of any flows and defects. Number of knuckles shall be as required for location and duty. Hinge pin shall be strong and shall give free easy movement; it shall be free of any play and shake. Pins shall be riveted. Screw holes shall be counter sunk heads.

Each hinge shall be clearly mark with the name of manufacturer or trade mark, if any. The hinge may also be marked with the Standard Mark.

4.0 SLIDING DOOR BOLTS

M.S. shall conform to IS 281. Brass and aluminium shall conform to IS 2681. Material and finish shall be as specified in BOQ or drawings along with sizes. Bolts shall be smooth, finish and free of any defects.

Each sliding door bolts shall be stamped, preferably on the hasp, with the same manufacturer's name or trade mark.

Sliding door blot may also be marked with the standard mark.

5.0 TOWER BOLTS

These shall conform to IS 204. Bolts shall be strong made up of single piece, correct shape, smooth and free of any defects. Holes for fixing screws shall be counter sunk

Flush bolts shall conform to IS 5187. Looking bolts shall conform to IS 7534.

Each tower bolt shall be clearly marked with the name of manufacturer or trade mark. The tower bolt may also be marked with the standard mark.

6.0 DOOR LATCH

These shall be of material, size and finish as specified. They shall be smooth functionable and free of defects.

7.0 INDICATING BOLT

These shall be cast brass or aluminium specially provided for general / mass use of toilets. Material, finish and design shall be as detailed in drawing or BOQ and as approved by the PM.

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8.0 MORTICE LOCK AND LATCH

Mortice locks shall conform to IS 2209 Locks shall be 65, 75 or 100mm as specified. The measured length shall not very more than 3mm. Material for various components and parts shall be as specified in IS. Locks shall have non-interchange ability higher the specified in IS i.e. minimum 250 locks to have non-interchange ability. Depth of body shall not be more than 15mm. For end clean plate free of rivets shall be provided locking bolts minimum section shall be 8 x 25mm. Minimum throw of locking bolt shall be 12mm. Lever locking mechanism shall be provided. Minimum levers shall be 6 (six) false dummy levers shall not be used. Guide pins, bolts shall be suitably coated and protected. Latch bolts shall be minimum 12 x16mm of recommended material. Bolts shall be reversible and of universal handing. Follower shall have square holes. Latch bolts shall have spring, smooth, bright or satin finish. Striking plates shall have two rectangular slots to suit locking bolts and latch bolt.

Body shall be finishes smooth and coated with coatings as specified / approved.

Locks shall be supplied with three keys. It shall conform to IS. Locks shall be sample and tested as per IS 2209. Locks shall have markings

- Manufacturers name, trade mark
- Year of supply
- Size of mortice lock
- Number of levers
- Country of origin

9.0 MORTICE NIGHT LATCH

these shall conform to IS 3847. Material shall as recommended in IS but shall be as specified in drawing or BOQ. This lock shall have a single spring bolt withdrawn from the outside by key and from inside by a handle and with an arrangement where by the lock can be prevented from being opened by its key from outside while night latch is use inside the room.

All other details shall be same as mortice locks and latch given in 8 here above.

Each mortice night latch shall be stamped with the following information:

a) Manufacturer's name, or trade-mark;

b) Size of night latch;

c) Number of leavers;

d) Country of origin; and

e) Year of supply, if specified by the purchaser.

The mortice night latch may also be marked with the Standard Mark.

The keys shall be stamped on the head with the serial number-of the night latch.

10.0 HANDLES

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10.1 Handles for mortice locks shall conform to IS 4992. Handles may be knob or handle type as specified / approved by the PM. Material finish shall be as specified. These shall be suitable for locks and shutter. Handle shall be smooth with sharp edges removed. Finish shall be as specified and approved. It shall have marking such as name of manufacturer, year and country of origin. It shall be received at site in packed condition. It shall be tested as per criteria given in IS.

Each door handle shall be stamped with the following information:

a) Name of the manufacturer or his trade-mark,

b) Year of manufacture, and

c) Country of origin.

The door handle may also be marked with the IS1 Certification Mark.

10.2 Handles for doors and windows shall conform to IS 208. Material, shape, finished shall be as specified in BOQ and drawings. All edges and corners shall be pencil rounded and smooth. Handles shall be able to provide adequate strength and easy mechanical means to operate. It shall be free of all defects.

Each door handles shall bear the manufacturer's name or trade mark. The product may also be marked with standard mark.

11.0 CUPBOARD OR WARDROBE LOCK

This should generally conform to IS 729. The size of the cupboard lock shall be 40,50,65 & 75mm. This shall be made of cast brass and shall be of the best make of approved quality. These shall be finished bright or chromium plated or oxidised or as specified. The size pf lock shall be denoted by the length of the face across the body in mm.

These locks shall be fitted with four, five or six levers as specified. False (dummy) levers shall not be used.

Each lock shall be stamped with the following information:

a) Manufacturer's name or trade-mark,

b) Number of levers,

c) Size of the lock and grade,

d) Serial number of the lock, and

e) Year of supply (if specified by the purchaser).

The lock may also be marked with the ISI Certification Mark.

012.0 BALL CATCHES FOR WOODEN ALMIRAH

This should generally conform to IS 8756. These may be brass sheets or cast brass with steel balls of size 6,7,5,9.5 or 12mm dia as specified. The size shall be denoted by the external diameter of the cylinder holding the steel ball with spring. When the almirah is in the closed position it shall

be retained in that position by the spring section of the ball catch and shall be so in continuous usage. The door shall open only when it is pulled open.

Each ball catch shall be clearly marked with the manufacturer's name or trade mark.

Ball catch may also be marked with ISI certification mark.

13.0 FINGER PLATE

This shall be finishes bright, chromium plated, oxidised of brass or anodised aluminium or transparent plastic or as specified. This shall be made from brass or aluminium plate of 1.6mm thickness with bevelled or square edge as specified.

The size of the plate shall be 300x65mm unless otherwise specified. The shape and pattern shall be approved by the PM.

14.0 KICKING PLATES

This shall be brass (finishes bright or chromium plated or oxidised) bronze, stainless steel, aluminium or as specified. Aluminium kicking plates shall be anodised and the anodic coating shall not be less than grade AC-10 of IS 1868. It shall be made from a plate of minimum thickness 3.0mm and 1.5mm in case of stainless steel. Shape of the plate shall be as specified. This shall have bevelled, or straight edges shall be fixed by means of counter sunk or rounded screws of the same material and finished as that of the plate. The shape and pattern shall be according to the drawings and as approved by the PM.

15.0 HANGING RUBBER DOOR STOPPER

These shall be of cast brass, finished bright, chromium plated or as specified. Aluminium stopper shall be anodised and the anodic coating shall not be less than grade AC-10 of IS1868. The size and pattern of the door stopper shall be approved by the PM. the size shall be determined by its length.

16.0 HYDRAULIC DOOR CLOSERS

16.1 a) Pneumatically regulated door closers for use on light weight shutters weighing upto 40kg shall conform to IS 6343

b) Hydraulic regulated exposed type door closer for use on shutter weighing upto 80kg shall conform to IS 3564

c) Hydraulic regulated concealed type in floor door closed for use on shutter weighing upto 125 kg shall conform to IS 6315

16.2 Closers shall be manufactured and tested as per specification. Preferably they shall be universal type. Material and finish shall be as specified in BOQ or drawings or as instructed by the PM. Closers shall satisfy

a) Correct type door closer shall be used for location

b) Door closer shall operate smoothly, quietly without any undue play during openings and closing operation

c) Closer shall work satisfactorily at all temperatures with minor adjustment to regulating screw

d) Closing time should be easily adjustable

e) Closers shall be easily repairable or replaceable

f) All parts be tested and closer shall pass endurance test

Each closer shall be marked with the following information :

a) Manufacturer's name or trade-mark;

b) Right closer, left closer or universal closer or 'R', 'L' or 'U' respectively;

c) Size of the closer;

d) Type of the closer; and

e) Serial number.

Each door closer may also be marked with the Standard Mark.

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SECTION – 6 / F

SUNDRY METAL WORK

1.0 GENERAL

1.1 INDIAN STANDARDS

Work shall be carried out to Indian Standards and Code of practices. In absence International standards shall be followed. These shall be latest issues. List given hereunder is not to be considered as conclusive and is for reference and guidance only. Any discrepancies / conflict noticed shall be directed to the PM for his direction / approval. However as a general rule more stringent specification shall take precedence.

1.	IS 226	Specification for structural steel standard quality.
2.	IS 277	Specification for galvanized steel sheets.
3.	IS 806	Code of practice for use of steel tubes in general building construction.
4.	IS 814	Welding electrodes.
5.	IS 815	Classification and coding of covered electrodes for metal arc welding of structural steels.
6.	IS 816	Code of practice for use of metal arc welding for general construction in mild steel.
7.	IS 817	Code of practice for training and testing of metal arc welders.
8.	IS 822	Code of procedure for inspection of welds.
9.	IS 823	Code of procedure for Manual for metal arc welding in mild steel.
10.	IS 1239	Specification for mild steel tubes, tubularos and other wrought steel fittings.
11.	IS 1977	Structural steel (ordinary quality)
12.	IS 2062	Steel for general structural purposes
13.	IS 2713	Part I Specification for Tubular steel poles

1.2 Quality Assurance

1.2.1 Material used shall conform to IS. Members shall withstand stresses and strains to which they are subjected.

1.2.2 Fabrication, assembly, erection, fastening, etc. shall be in accordance to details approved by PM.

1.2.3 Manufacturer shall have minimum five years experience in these products. Works shall be carried out under qualified supervisions.

1.2.4 Welders employed shall be certified welders as per IS 817.

1.3 Submittals.

1.3.1 Products

a) The contractor shall submit detailed catalogues, literature for products proposed to be used by him. He shall submit detail comparison for properties, test etc specified in BOQ and those of products he intends to use.

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b) Certificate of manufacturer of products that it conforms or exceeds specification given in contracts and its suitability for use.

1.3.2 Shop Drawings

The contractor shall prepare detail shop drawings based on Architects concept drawing. Drawings shall show in detail the arrangement of components, the sequence and details of fabrication, assembly and installation of components. Further they shall give

- Relative position of all adjacent walls, beams, columns, slab all clearly drawn with jointing techniques.
- Full size details including isometric drawing of jointing method.
- Type of materials, sizes, location and spacing of screws, bolts, welds, anchoring etc.

2.0 MATERIAL

2.1 Structural steel

Steel conforming to IS 226 and 2062 shall be used for steel subjected to dynamic loading, fatigue, wide fluctuation of stresses expected and reversal of stresses. Rolled and finished steel section's dimension and weight shall conform to IS 1852 and shall be within permissible tolerances. Steel sections shall be free from rust, scaling/pitting, cracks, surface flaws laminations, rough and imperfect edges and all other harmful defects. Mechanical and chemical properties shall be as per IS.

2.2 Rivets.

Rivets used in work shall conform to IS 1148. It shall be free from defects, excessive rust, and scaling/pitting. They shall be well protected and securely stored at site.

2.3 Bolts

Bolts conforming to IS 1367 shall be used. Bolts may be turned and fitted or black bolts. Bolts, nuts shall be free from excessive rust, scaling/pitting, crack or any other defects. They shall be with sharp, defined threads and heads. They shall be well protected and securely stored at site.

2.4 Electrodes

Covered welding electrodes conforming to IS 814 shall be used in metal arc welding. Electrodes shall be fresh and packed in watertight packing as received from manufacturers with date of manufacture. They shall be stored in damp proof store.

2.5 Tools, Equipments and Machines

Gas cutting sets, drilling machines, welding machines, chain pully box, winch, cranes etc used shall conform to respective IS. Capacity and type shall be as per requirement of works. Equipment, tools and machines shall be used with proper safety mechanism and shall have all safety devices built in. They shall be well-maintained and routine checks for safety shall be carried out on periodic basis as specified.

2.6 Delivery and storage

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Approved material conforming to IS and specification shall be procured by the contractor (or supplied free/basic price by the Client/Employer) as per schedule. Each batch of material shall be received with manufacturers, certificate conforming chemical and mechanical properties. Storing yards shall have hard paved grounds and should be well drained. Steel shall be stored on raised platform in these yards. Steel shall be kept covered with plastic to avoid rusting. Yards shall be maintained clean so as to avoid any contamination due to dust, mud, oil, grease etc. Scrap and full-length steel shall be stacked separately. Further each type/categories of steel shall be stacked separately.

3.0 SCOPE OF WORK

3.1 Providing, designing, preparing shop/fabrication drawing, getting approval from PM, fabrication, assembly, transport/shift, load, unload, erect including cleaning, priming, finishing with paint or process specified, actual site measurement etc complete for following types of works.

- Hand rails
- Angle Frames and Grills
- Gratings
- Kitchen / vanity support platforms
- Thresholds
- Any miscellaneous steel work not part of structural steel or of metal doors frames / shutters etc.

3.2 Coordination with actual site schedule, sequence of working and to complete as per programme to approval of the PM.

4. WORKMANSHIP

4.1 General

4.1.1 Fabrication shall be carried out only after approval to shop drawings by Architect. Work shall be carried out at factory and shall be with proper tools and tackles and complying to Engineering practices. Factory shall be accessible to PM's and PM's representative at all times. Points to be noted are

4.1.2 Cutting

Cut shall be by sawing, shearing or blanking. Flame cutting shall be avoided. However if permitted, cut edges shall be ground back to clean, smooth edges. Cut shall be accurate, clean, sharp, square and free of burrs, without deforming adjacent surfaces of metals.

4.1.3 Holes

Holes shall be drilled or cleanly punched to achieve accurate, clean, neat and sharp without deforming adjacent surfaces of metals. Gas cutting of holes not permitted.

4.1.4 Junctions / Assembly

Connections and junctions shall be located as approved in drawings. Connections shall be tight joints capable of developing full strength within members. Joints and connections shall be flush

unless specified differently. In exposed condition where required water draining arrangement shall be provided. Provision for thermal movement jointing shall be provided at locations approved by the PM.

4.1.5 Welding

Welding shall be in accordance with recommendations of the Indian Standard code of practice. Welders shall be trained and certified as per IS 817. Work shall be done with electrodes and/or methods recommended by the manufacturers of the metals being welded. Welds shall be continuous, except where spot welding is specifically permitted.

Exposed welds shall be finished free of imperfections such as pits, runs, splatter, cracks, wrapping, dimpling, depressions or other forms of distortion, discoloration. Exposed welds shall be ground flush and dressed smooth to match adjoining surfaces.

4.1.6 Bolts and Screws

Threaded connections shall be with tight threads entirely concealed. At exposed locations lock nuts, bolts and screw heads, shall be flat and countersunk. Cut off projecting ends of exposed bolts and screws flush with nuts or adjacent metal.

4.1.7 Site fixing

Work shall include providing and fixing nonferrous anchor bolts / insert plates, plates or other anchoring devices for fixing into or to concrete, masonry or other trades of work. All these shall be with approval of the PM and the Consultant.

4.1.8 Finishing

Work shall be clean, free from dirt, stains, grease, scratches, distortion, waves, dents, buckles, tool marks, burrs, etc. and defects which mar appearance of finish work.

4.1.9 Mock-up Samples

The contractor shall prepare mock-up samples as per approved shop drawing. Mock-up samples shall be to full size and shall be true representation of actual works to be carried out at site.

4.2 Handrails / Guardrails

4.2.1 Metal handrail/guardrail shall be provided around opening, stairs, balconies, parapet or elsewhere as shown in drawing. Handrails /guardrails shall include handrails / guardrails, its supports, in fills required fastening / securing arrangement and finish.

4.2.2 Material used shall be mild steel, stainless steel or aluminium with or without combination of concrete, masonry, timber etc.

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4.2.3 Railing shall be detailed by Architect in plan; however where designing is part of the contractors work, the contractor shall take care of

(1) Design loads

- Uniformly distributed load at top of rail to be 1000 kg/sqcm applied perpendicular to plane of railing.
- Concentrated load of 1000 kg/m
- In fill panel to have load 150 kg/sqm

(2) Concealed fixing

(3) To coordinate shop drawing with actual site measurement in consultation with the PM

(4) Arrangement to fix rail with adjacent work without damaging surrounds and rails.

(5) Rails shall extend one tread length about 270 to 300 mm at free end.

(6) Clear space between all components shall not be more than 100 mm, unless specially shown in architectural concept detail drawing.

4.2.4 Railing fabrication, erection shall be as per approved method by PM.

4.2.5 Railing shall be as far as possible prefabricated shifted to site in knock down condition with markings ready to assemble and erect without any special aids.

All joints, assemblies shall be smooth finished with tight hairline joints. All ends shall be closed / capped. All assemblies, fitting & fixture shall be concealed type to the extent possible and exposed once finished as specified in drawings. Assembled railing shall be secured tight with finished surfaces. They shall not damage nor stain base and surroundings.

Securing / anchoring system shall be well grouted with base or jambs. Where required use no shrink compound in addition to metal fasteners. Expansion anchors, expansion shields, toggled bolts etc shall be used to fix rails with walls basis.

Expansion joints within structures shall be provided with slip joints and shall have one end free within sleeve.

4.2.6 On completion and prior to handover railing shall be touched as required.

4.2.7 Railing shall be protected by the contractor till it is handed over to the PM/Employer with required protection measures. All cost of protection and maintenance shall be to the contractors account.

4.3 Structural Framework

4.3.1 Structural steel framework shall be designed, drawn, fabricated and erected by the contractor for

- Vanity counters
- Kitchen platforms
- Frame work for openings

4.3.2 Based on concept architectural drawing the contractor shall design, draw shop drawing to approval of the PM.

4.3.3 Steel used shall be new and hot dip galvanized or epoxy coated on fabrication.

4.3.4 Work shall be carried out to correct line level and plumb through experienced fabricators and IS approved welders.

4.4 Gratings.

4.4.1 Gratings over ducts, drains shall be light medium or heavy duty as per location to be installed.

4.4.2 The contractor is responsible for design, drawing (shop drawing) and obtaining approval from PM and shall be acceptable to local authorities rules and regulations.

4.4.3 Material used shall be new and conforming to IS 2062 and hot dip galvanized.

4.4.4 Fabricate gratings with use of experienced and IS approved welders.

4.4.5 Securely erect grating with required levelling, sealing, grouting of frame into structure.

4.5 Grills

4.5.1 Security grill or architectural grills shown in drawing shall be fabricated as detailed in drawings.

4.5.2 The contractor shall prepare shop drawing giving details of connection, assembly and security fixing with structure.

The contractor shall not deviate from size, thickness and shape of each member as detailed by the PM in his concept drawings unless such grills are subjected to loads, stresses. In case of security grills safety norms shall be followed. Any changes to size, shape, thickness, material due nonconformity to local safety regulations shall be brought to notice of the PM and coordinated with the PM while preparing shop drawing to obtain approval of the PM.

4.5.3 Material shall conform to respective IS and shall be new. Fabrication, erection shall be through experienced approved skilled work force. Welders shall be IS certified.

4.7.4 Prior to fabrication actual site measurement shall be taken and coordinated into the shop drawing. Allowance for site fixing shall be considered and incorporated during fabrication.

4.5.5 Prior to erection, site surrounds shall be inspected and surrounds shall be finished to acceptable standard.

4.5.6 Erection shall be done with due care not to damage adjacent surfaces. Fixing shall be done with fasteners by drilling holes or welding or as detailed and approved. Work shall be to correct line, level, plumb and shall be aligned with surround. Special care shall be taken that work is fully secured.

4.5.7 On completion of erection, required touch-up and finishing shall be completed to grills and surroundings to approval of the PM.

5.0 MEASUREMENTS

5.1 Work shall be measured as under.

Railing shall be measured in running meter or square meter as detailed in Bills of quantity. Other miscellaneous metal work shall be measured in kg.

5.2 Item to include

- ☐ Design
- ☐ Shop drawing preparation
- ☐ Coordination with actual site dimension
- ☐ Material procurement
- ☐ Fabricating with required tools, plants, equipments
- ☐ Erection with required tool plants and equipments
- ☐ Finishing and touch-up
- ☐ Shifting, transporting, loading, unloading
- ☐ Labour cost
- ☐ Protection and maintenance
- ☐ Warranty if any for particular product

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SECTION – 7

PAINTING AND POLISHING WORK

1.0 INDIAN STANDARDS

1.1 Indian and other international standards followed for this section shall be as listed below. In case of any discrepancies or ambiguities noticed shall be brought to notice of the architect and clarification/confirmation sought. His decision shall be final. However as general rule more stringent specifications shall be followed.

1.2

1)	IS 345	Specification for wood filler, transparent, liquid.
2)	IS 533	Specification for gum spirit of turpentine (oil of turpentine)
3)	IS 1477	Code of practice for painting of ferrous metals in buildings
	Part I	Pretreatment
	Part II	Painting
4)	IS 2388	Code of practice for finishing of wood and wood-based materials
	Part I	Operation and workmanship
	Part II	Schedule
5)	IS 2524	Code of practice for non-ferrous metals in building
	Part I	Pretreatment
	Part II	Painting
6)	IS 3537	Specification for ready mixed paint, finishing, interior, for general purposes to IS colours
7)	IS 4597	Code of practice for finishing of wood and wood-based products with nitrocellulose and cold catalysed materials.
8)	IS 6005	Code of practice for phosphating of iron and steel.
9)	IS 2395	Code of practice for painting of concrete, masonry and plaster surface.

1.3 Quality Assurance

1.3.1 Contractor shall provide and use product of single manufacturer in each paint system unless it is advised by the paint manufacturer.

1.3.2 Paint shall not contain compound harmful for health and banned by the authorities.

1.3.3 Paint used shall be of approved make and conforming to IS requirements.

1.3.4 Contractor shall engage applicator with minimum three years' experience.

1.4 Submittals

1.4.1 Contractor shall submit product data of each product and cross reference to specific paint system suggested in IS code of practice.

1.4.2 Submit colour chart identifying paint system to be applied to each area.

1.4.3 Prepare one sample of each paint system on timber / plywood. Step back each coat and process to show bare substrate, each coat and process in system build up.

1.4.4 Applicators experience certificate.

1.4.5 Manufacturers confirmation that it meets IS requirements and his application instructions.

1.5 Warranty

Contractor shall submit written warranty for

a) Free from defects material and workmanship

b) To repair and replace defects occurring during warranty period.

c) Defects include but not limited to pin holes, crazing, loss of adhesion to substrate, deficient thickness, bleed-through, improper material, defective material and workmanship.

2.0 MATERIALS

2.1 Paints used in the works shall conform to the respective IS or equivalent, other international standard (if specially specified) and code of practices. These shall be the latest revised.

2.2 Paints should be such as to withstand weathering effects of the atmosphere, decay of wood, corrosion of metal and of pleasing appearance. Also their surface should become hygienic, clean and attractive.

2.3 All paints and finishes shall confirm and subjected to test as per IS or International standards at least for following

a) Uniform film applicability with self leveling properties.

b) Inert to weathering, accelerated weathering and oxidation

c) Fading, colour fasteners, hard and durable surface.

d) Bending and scratching resistances.

e) Resistance to mould, fungus and algae.

f) Chemical analysis (particularly anticorrosive paints).

2.4 Thinners and tints used shall be of same manufacturer of approved paint brand or as recommended and approved by him for use with his products.

2.5 Shellac, turpentine, patching and other similar materials required for execution of work shall be pure, best quality products.

2.6 Product shall have an integral inhibitor added during manufacturing process for protection against fungus, algae and for mildew.

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2.7 Varnishes shall conform to the respective latest revised IS. Varnishes shall create a brightening appearance on wood, brilliancy to the painted surface and offer protection against atmospheric action.

2.8 Good varnishes should achieve the following :

1. Render glossy / matt finish to the surface as specified.
2. Have an uniform, pleasing appearance on rapid drying.
3. Its colour should not fade.
4. Most ensure a final hard, durable and tough surface.

2.9 Delivery

Material received at site shall have proper labels of approved manufacturer of paint / varnishes / polish, batch no, date, type and colour.

2.10 Storage

2.10.1 Paint / Varnishes / Polish shall be store in well ventilated areas. Required care for prevention of fire shall be taken. Display prominently warning sign.

2.10.2 Manufacturers seals and containers shall not be opened unless same is approved and required for use at site.

2.10.3 Store shall be maintained clean and neat by making sure that all waste, rags, etc. are removed at end of each day.

2.10.4 No container shall be kept open at any time.

2.10.5 Prohibit smoking in store area and arrange fire protection equipment in area.

2.11 Testing

2.11.1 Test required to be carried out as per direction of PM shall done at the cost of contractor.

2.11.2 Samples and literature required shall be submitted to PM by the contractor at no extra cost to contract.

3.0 WORKMANSHIP

3.1 General

3.1.1 Work shall be carried out strictly as per code of practices, recommendations of approved paint / polish manufacturer and direction of PM. For general guidance expectation of PM or as under.

3.1.2 It shall be responsibility of the contractor to finish painting / polishing work in specified system / coats to acceptable finish appearance, texture, thickness shade. Extra coats or extra efforts if any required by him in execution shall not be paid additionally.

3.1.3 Painting / Polishing shall commence only after other trades work has been substantially completed and areas are cleaned out. Areas shall be maintained in clean condition during painting / polishing.

3.1.4 Surfaces to receive paint / polish finish shall be cleaned and prepared as per code of practice and as recommended by paint / polish manufacturer to approval of the PM. It shall include required cleaning, sundries, touching, filling, priming, etc. Surfaces to be painted shall be perfectly clean and dry.

If surfaces are not in satisfactory condition for cleaning, sanding, speckling etc. it shall be reported to the PM in writing.

3.1.5 All adjoining areas, surfaces shall be protected with temporary protection to prevent damage from droppings, spray, windblown particles, etc.

3.1.6 Surfaces to receive finishes shall be dry, free from condensation, any extraneous matter and accepted by PM.

3.1.7 The contractor shall make good, at no additional expense to the Employer, any failure or damage to appearance due to the substrate not being completely ready for paint / polish application and substrate being rough or unsuitable by previous tradesmen.

3.1.8 Paint / Polish shall not be applied to surfaces where moisture content exceeds 8% when measured with electronic moisture metre or 15% when measured with protimeter.

3.1.9 Fitting and fixtures (Ironmongery) fixed to wood or steel shall be removed prior to application of paint or varnish.

3.1.10 Follow manufacturers printed and special instructions if any for mixing and application.

3.1.11 Scaffolding

The contractor shall provide, erect and remove all the required scaffolding. It should be sufficiently away from surface to work. It should be rigid and safe.

3.1.12 Field samples

a) Install approved paint system on wall surfaces, other interior and exterior components directed by the PM.

b) Prepare and install area about 10 sqm of full surface in required colour, shade, texture, workmanship quality etc.

c) Obtain approval of each paint system for colour, texture, quality and workmanship.

3.1.13 Pre-installation co-ordination

a) Discuss sequence and scheduling, installation procedures with other trade.

b) Review requirements and conditions for successful performance.

c) Review environmental and ventilation requirements.

d) Review surface conditions and acceptability from paint manufacturer's requirements.

e) Review project specifications and instructions of PM.

3.2 Surface Preparation

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3.2.1 Wood Work

Work shall be carried out to specifications as in IS 2338 Part I and II. The system shall be installed as per the schedule for finishing and shall be as per table of IS 2338 Part II "Schedule for finishing wood or wood based materials".

a) Wood to be painted / polished shall be seasoned and free from discoloured sapwood and from large resinous or loose knots.

b) Nail shall be punched well below the surface to provide a firm key for stopping.

c) Mouldings shall be carefully smoothened with abrasive paper and the fibres left after matching shall be cleaned and removed.

d) Flat portions shall be smoothened.

e) Any knot, resinous streaks or bluish sapwood shall be treated with two coats of pure shellac knotting, applied thinly and extended to about 25 mm beyond the actual area requiring treatment.

3.2.2 Ferrous metal surface

Ferrous metal surfaces shall be painted in accordance with IS 1477 Part I and II. Partly or fully pre-fabricated material shall be pre-treated only at the factory with specified primers after the required and controlled surface preparation. The painting system shall be as per table of IS 1477 Part II "Painting Schedule for Ferrous Surfaces".

Preparation of surface

a) It is most important to prepare the surface as per the various methods detailed in IS 1477 Part I and IS 6005 depending upon the material to be painted / polished and maintained.

b) Types of method employed are

I. Petroleum solvent cleaning

II. Trichioroetheylene cleaning

III. Alkaline cleaning in process tank

IV. Emulsion cleaning

V. Electrolytic and steam cleaning

VI. Mechanical cleaning (Scraping)

VII. Flame cleaning

VIII. Sand-blasting or shot blasting

IX. Chemical cleaning (Pickling)

c) The best methods shall be used at the respective locations :

I. All structural steel shall be sand or shot blasted at site.

II. All pre-fabricated and primed materials shall be mechanically cleaned.

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III. All galvanized steel products shall be cleaned and washed with etching or wash primer

3.2.3 Concrete, masonry and plastered surfaces

3.2.3.1 Work shall be carried out as specified in IS 2395, Part I and Part II. Schedule of painting system to be as per table of IS 2395 Part II.

3.2.3.2 Surface preparation:

a) Surface shall be cleaned and any existing fungus or mould shall be removed. A coat of fungicidal wash shall then be applied and allowed to dry.

b) Any cracks, defects in plaster or concrete shall be cut out, made good, cured and allowed to dry. Minor cracks may be filled with suitable filler.

c) In case of an old surface, previous paints or any other coats, all loose pieces and scales shall be removed by sand papering. The surface shall be cleaned of all grease, dirt etc. shall be totally removed prior to any repaint. Any unevenness shall be made good by applying putty, made of plaster of pairs mixed with water on the entire surface including filling up the undulations and then sand papering the same after it is dry. If a painting system that is the same as the old one is to be installed, then complete removal may not be necessary. They shall be washed and light-sanded as approved by the PM.

d) Lime mortar plaster shall be left unpainted for the first few months to allow plaster to carbonate, harden and dry thoroughly.

e) In case of Gypsum plaster it shall be ensured that the surface is either alkaline or neutral and tested in accordance with E-1 as specified in IS 2395 Part I.

f) In case of masonry, joints shall be brought to a sound condition before the painting operation is started. Brick work painting shall be deferred at least by 3 months.

3.3 Application

3.3.1 Painting

3.3.1.1 The paint system shall be installed as detailed in table of IS 2395 part II "Schedule for painting (New Calcareous Surfaces Interior)" or as specifically instructed in writing by PM along with approval.

3.3.1.2 The painting system to be installed shall be as detailed in drawings / Schedule for painting / BOQ. All paints and products shall be procured from one manufacturer only. The steps for painting operation to be followed are as under:

a) Primer/Sealer - coat as recommended by the paint manufacturer

b) Filler/Putty - as many layers as required and approved of PM

c) Under coats

d) Finishing coat or coats

3.3.1.3 Paints to be applied shall be spread uniformly over the entire area.

Paints shall be mixed and stirred thoroughly prior to use. No addition of thinner or water shall be permitted other than the quantity specified by the manufacturer.

3.3.1.4 Paint may be sprayed or applied with brush depending upon type of paint used.

3.3.1.5 Finishing shall be to the satisfaction of the PM.

3.3.1.6 Sufficient time shall be allowed between two coats to ensure that the earlier coat is fully dry prior to the application of the successive coat.

3.3.1.7 Application of paint shall be carried out in properly ventilated and dry weather. Schedule for painting (Interior) shall be in accordance with Schedule for painting (New Calcareous surface interiors).

3.3.1.8 Application of one coat in one room shall be finished in one operation.

3.3.1.9 Distemper shall be prepared by addition of water or thinner as specified that will be sufficient for one coat for a room.

3.3.1.10 Filler shall be plaster of Paris or as approved by the PM.

3.3.1.11 Cement paints shall be applied over thoroughly wetted surfaces. It is important that painted surfaces shall be sprinkled with water two or three times a day for 7 days.

3.3.1.12 Brushing of paints in coats shall be in a direction that is at right angles to the previous one. No brush mark must be visible.

3.3.1.13 Painting shall be measured in square metres.

3.3.1.14 The number of finished coats specified in the BOQ are the minimum required and for guidelines only. The finished surface shall be to the acceptance and approval of the PM. Any additional coats required to achieve this shall be to the account of the contractor and no extra charges shall be payable for any additional coat applied.

3.3.1.15 Other general points and steps to be followed are

a) Surfaces shall be painted when their moisture content is within manufacturers recommended level.

b) Paint shall be applied evenly and thoroughly using clean brushes, spraying machines, tools, plants etc. They shall be maintained and serviced as specified therein. All materials shall be applied by skilled tradesmen.

c) Each succeeding coat of paint shall differ slightly in colour from the preceding coat.

d) Specified coat of paint should be completed on an entire floor or area at a time.

e) Apply materials at rate not exceeding that recommended by paint manufacturers for surface being painted.

f) Drying time between coats shall be as per manufacturer's recommendations.

g) To remove visible defects from 1.5 m distance on the surfaces, clean with approved solvent between coats.

h) Finish coats shall be smooth, free of brush marks; streaks, laps or piles of paint skipped or missed area.

i) Only after inspection of completed coat, additional coats if necessitated shall be applied. Number of coats applied shall be determined by considering inspected coats of paint.

j) Minimum dry film thickness should not be less than that specified. It shall be recorded by wet film thickness gauge after application of each coat.

k) Make edges of paint adjoining other materials or colours clean and sharp without overlapping.

l) Where surfaces are specified to receive factory applied primer compatible with finish coats, primer coats may be omitted.

m) Back prime exterior and interior finish carpentry and joinery with material specified for prime coats, without runs on face finish cut edges just prior to installation.

n) Entire surface (Wall or portion) shall be refinished to nearest internal or external corners if portion of finish is damaged or unacceptable.

o) Paint systems and/or materials offered for approval shall comply with the minimum dry film thickness requirements specified therein. Paints shall be factory mixed and blended ready for use, except for stirring.

3.3.2 Finishing to wood surfaces

3.3.2.1 Filling

a) Filler conforming to IS 345 shall be used to level off, to make smooth, to prevent the excessive penetration of the finish and to fill the open cells,

b) For special stain effects colour fillers shall be used.

c) On fine textured woods having minute pores that do not require filling, thin varnishes, lacquer or shellac may be used.

d) Filler or stain filler shall be applied by hand using hessian or jute rags cross the grain. The filled surfaces shall be dried preferably overnight and smoothened with abrasive paper.

3.3.2.2 Staining

a) Staining of wood shall be restored to create special effects for subsequent clear finish.

b) Stains used shall be water-based, spirit-based or oil-based as approved by the PM according to the purpose and location.

c) Surfaces shall be kept scrupulously clean and free from greasy finger marks.

d) Small cracks or nail holes shall be stopped with fine plaster of Paris or suitable stopping.

e) Stains may be applied by brushing and wiping or spraying. Application shall be liberal but without over-staining that may spoil the stained surface.

3.3.2.3 Sealing

A suitable seal shall be applied on the filled and sanded surface to prevent absorption by the wood of successive coats of finish and to seal stain and filler and thus preclude their bleeding into the finished coat.

When fully dry, the surface shall be sanded taking care not to cut through at corners and edges. Dust shall be blown off and the surface wiped with a clean rag.

3.3.2.4 Varnishing

a) Surfaces to be varnished shall be prepared to produce a smooth, dry, matt surface.

b) Previous coats or stains, if any, shall be allowed to dry and rubbed down lightly, wiped off and allowed to dry.

c) Varnish shall be applied liberally with a brush and spread evenly over a portion of the surface with short, light strokes to avoid frothing.

d) Excess varnish should then be scraped out of the brush and the first section be crossed, recrossed and then laid off lightly. To much or too little varnish left on the surface will mar the appearance of the finish. Once the varnish begins to set, it shall not be retouched. If there is any mistake, the varnish shall be removed and redone.

e) Sufficient time shall be allowed in subsequent coats for the previous coat to harden and dry.

3.3.2.5 Clear finishes for wood surfaces

Clear finishes shall be applied to wood and wood based interior surfaces. They shall be carried out as per IS 2338 part I. The schedule of finishes shall be as per table of IS 2338 part II "Schedule for finishing wood or wood based materials".

3.4 French polish

3.4.1 Work shall be carried out to IS 2338 Part I and Part II. Schedule of finishes shall be as per table of Schedules for finishing wood or wood based Materials.

3.4.2 Pure shellac varying from pale orange to lemon yellow colour, free from resin or dirt shall be dissolved in methylated spirit at the rate of 0.15 kg of shellac per litre of spirit. Suitable pigment should be added to get the required colour.

3.4.3 All unevenness shall be rubbed down to smoothness with sand paper and the surface shall be well-dusted. The pores in wood shall be filled up with filler made of a paste of whiting dissolved in water or methylated spirit. Otherwise the French polish will get absorbed and a good gloss will be difficult to obtain.

3.4.4 A pad of woolen cloth covered by a fine cloth should be used to apply the polish. The pad shall be moistened with polish and rubbed hard on the surface in a series of overlapping circles so that the polish is applied uniformly over the entire area to give it an even surface. The surface shall be allowed to dry, and the remaining coats applied in the same way.

To finish off, the pad shall be covered with a fresh piece of clean cloth, slightly damped with methylated spirit and rubbed lightly and quickly with clear motions. The finished surface shall have a uniform texture and high gloss.

3.4.5 Measurements shall be in square metres with respective factors as specified in SP 27.

3.5 Ferrous metal surface

3.5.2 Primer coat

Immediately after the preparation of the surface, the first coat of primer by spray or brush shall be applied ensuring continuous film without "holidays". After the first coat is hard dry, the second coat shall be applied so that a film free from "holidays" is obtained.

3.5.3 Filler coat

After the second coat of primer is hard dry, the surface shall be rough sanded without scratching or damaging primer. Dents shall be filled with a putty knife pressing firmly into the dents and applying an optimum layer. The coat shall be allowed to hard dry and cut down by wet rubbing to a smooth finish. As many coats of filler as required shall be applied but each layer must be allowed to hard dry and rubbed smooth.

After the last coat of filler is hard dry and wet rubbed, a coat of filler by brush or spray to fill the fine dents shall be applied as required.

3.5.4 Undercoats

The entire surface shall be wet rubbed cutting down to a smooth uniform surface. The water shall be allowed to evaporate. An optimum coat of undercoating by brush or spray, shall be applied with minimum brush marks. The film shall be allowed to hard-dry, and then wet-rubbed, cutting down to a smooth finish (ensuring that at no place shall the undercoat be completely removed).

3.5.5 Finishing coat

The first finishing coat shall be applied by brush or spray and allowed to dry.

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Then the gloss shall be gently removed from the entire surface. The surface will be dusted and the second finishing coat applied by brush or spray. Schedule of painting for finishing ferrous surface for interiors shall be in accordance with table IS 1477 Part II "Painting Schedule for Ferrous Surfaces".

3.5.6 Work shall be measured in square metres with respective factors as specified in SP 27.

4.0 POINTS TO BE NOTED

4.1.1 Scaffolding

The contractor shall provide, erect and remove all the required scaffolding. It should be sufficiently away from surface to be easy to work. It should be rigid and safe.

4.1.2 Painting equipment

All the Brushes, Spraying Machines, Tools, Plants, etc. used shall conform to their respective code of practice. They shall be maintained and serviced regularly as specified therein.

4.1.3 Paints

The paints used shall be procured from one manufacturer for the system installed. They shall conform to Indian Standards as specified in the various table of Schedule for finishes in IS Codes.

4.1.4 Drying time

It is essential that each coat shall be thoroughly dry before the subsequent coat is applied.

4.1.5 Flatting down

Flatting down of primer coat, undercoat, and the first finished coat is essential to provide a key for the subsequent coats in order to improve the inter-coat adhesion.

4.1.6 Mixing before application

Paint shall be applied only after the content of the drum are thoroughly stirred. Paint, while in use, shall also be stirred from time to time to ensure that the pigment remains in suspension.

4.1.7 Thinner/dilutions

Paint manufactured to IS shall have correct consistency and shall not require any further dilution. If there is doubt, the viscosity of the paint may be checked. If slight adjustment to the viscosity is necessary, use the thinner as recommended by the manufacturer of the paint.

4.1.8 Environment

Painting operation should be carried out in a well-ventilated place, free of dust, draught and direct sunlight. In coastal regions and areas with moderate or high humidity, it is generally not safe to paint exteriors in the early morning hours. Painting during the monsoon shall be avoided both in the exterior and interior, as humidity is high which will affect the drying, resulting in paint defects.

4.1.9 Surface

Paint surface should be clear of dust, grease, oil, alkalinity, fungus and surface should be totally dry.

4.1.10 Finishing

Paint coats and systems specified are for guidance. Finishing shall have to be carried out to the entire satisfaction of the PM. If any defects are noticed later, the contractor shall repair the same or re-install his complete system as required under the contract. Additional coats, if required, shall be carried out over the minimum specified finish to the approval of the PM, and shall be at the cost of the contractor and no additional charges shall be payable.

The item to include the cost of all materials, labour, scaffolding, and protective measures involved in all operations described in workmanship and of the item of the BOQ. It shall also include, unless otherwise stated, conveyance, delivery, handling, unloading, storing, waste, return of packing, etc.

5.0 EXTERNAL PAINTING

S.No.	Area	Purpose	Stage	Item Description	DFT in micron (mm)
1	Exterior Walls	To obtain best surface	Washing & cleaning of surface	Wash & clean the surface free from dust and other particles with waterjet machine. Clean the surface dry with coir brush.	NA
2	Exterior Walls	Long lasting treatment for cracks	Crack Filling	Providing and applying 2 coats of flexible, crack filler, up to 10mm cracks.	NA
3	Exterior Walls	All round performance against all environmental and surface issues and highest longevity	Final	Providing and applying 1st coat of elastomeric base coat with 30% dilution with forced coverage 60 sq ft/Ltr and 2nd coat of undiluted coat of elastomeric base coat with forced coverage 50-55 sq ft/Ltr Material should be pure acrylics latex based on nanotechnology, Core shell technology with acrylic fibre liquid applied membrane having crack bridging ability up to 2mm, superior anti-carbonation & water proofing property with life of	Base Coat (2 coats): 160-180 micron approx. (0.16 -0.18 mm) Acrylic Texture (1 coat): 2000 micron

S.No.	Area	Purpose	Stage	Item Description	DFT in micron (mm)
				10 years. Forced coverage is to be ensured. Then apply one coat modified acrylic, silica, dolomite-based texture with trowel (scratch finish) formulated with special materials such as mineral crystals that give them unparalleled toughness and durability, making them a perfect choice for exteriors. Dolomite Crystals endow the paint film with superior toughness and high durability • Provides aesthetics to building exteriors & interiors. • Water repellence property ensures a longer life of the texture Followed by two or more coats of coating system based on hybrid Acrylic-Silicon polymer, UV Cross linking & Silica Nano Technology based emulsion, which must be available in a variety of colour shades, having high resistance to growth of algae, superior resistance to dust and dirt accumulation, resistance to fading of colours, protection against bird droppings, self-cleaning property and paint performance for guaranteed 15 years so as to obtain an acceptable finish and ensuring coverage of min. 60 - 65 Sq.Ft/ Ltr (on plain surface) & 45-50 Sq.ft/Ltr (on textured surface) with 30-40% dilution with water.	approx. (2mm) Top Coat Paint (2 coats): 50-60 approx. (0.05-0.06 mm)

* * * *

8.0 FIRE PROTECTION SYSTEM.

1.1 Scope.

The scope of this section consists of but is not necessarily limited to supply, installation, testing and commissioning of the fire protection system. The philosophy of the system is as follows:

a. The Fire Suppression System shall comprise the Fire Hydrants & Sprinkler System, Hand Appliances & Fire alarm System.

b. Water from the underground 1 Nos RCC Fire Water Storage Tanks, each of 75000ltrs. capacity, shall be supplied for the uses listed below.

   i. Fire Hydrant System (Pressurised) both for the external hydrants, the internal landing valves and the hose reels at landings.
   ii. Sprinkler System.
   iii. Fire Alarm System.

c. The Hydrant System and the Sprinkler System, under normal conditions, shall be lowest pressurized by means of the electric motor driven Jockey, Hydrant & Diesel Pump.

d. The Hydrant & Sprinkler System shall be provided with three pump sets, one of which will be diesel engine driven and the 2 electric motor driven.

e. The piping and valve connections shall be done so that the water from the discharge of the Hydrant Pump sets is able to supply water, automatically to the Sprinler System whenever, the All Pump is unable to maintain the pressure or fails and not vice versa.

f. The starting and stopping of the Jockey pump shall be automatic based on the pressure switches at preset low and high pressure.

g. The electric motor driven Hydrant Pump starts automatically at a preset pressure by means of a pressure switch. As soon as the Hydrant Pump starts, the Jockey Pump Stops. If for any reason the electric motor driven Hydrant Pump does not start at the preset pressure or is unable to maintain the pressure, the diesel engine driven Hydrant Pump starts at the preset pressure.

h. The Hydrant Pump, whether electric motor driven or the diesel engine driven shall be stopped only manually.

i. Contractor shall ensure Hydro Testing for the complete system.

j. The Contractor shall obtain the necessary approval of the drawings, fire Noc and the schemes from the local authority / TAC as called for. The contractor shall also take care of any other requirement so that insurance cover can be obtained, if required at minimum premium at a later date.

k. The contractor shall design and after approval of Project Manager display near each staircase landing at floor levels, a glass covered framed floor plan clearly showing the locations of all landing valves, hose reels, hand appliances, as well as the DO's and DON'T's for the personnel and the exit direction in case of an emergency. The dimensions of the floor plan, its scale, lettering size, colour scheme etc shall be as directed by the Project Manager.

1.2 Pipe Work

1.2.1 GENERAL REQUIREMENTS

All materials shall be of the best quality conforming to the specifications and subject to the approval of the Consultants.

Pipes shall be fixed in a manner as to provide easy accessibility for repair and maintenance and shall not cause obstruction in shafts, passages etc.

Pipes shall be securely fixed to walls and ceilings by suitable clamps and supports (galvanised after fabrication) at intervals specified. Only approved type of anchor fasteners shall be used for RCC slabs and walls / floors etc.

Valves and other appurtenances shall be so located that they are easily accessible for operations, repairs and maintenance.

Pipes and fittings shall be fixed truly vertical, horizontal or in slopes as required in a neat workman like manner.

Pipe accessories such as gauges, meters, control devices, etc. shall have the same working pressure rating as the associated pipe work. All pipe work shall be free from burrs, rust and scale and shall be cleaned before

installation. All personnel engaged on welding operations must possess a certificate of competence issued by an acceptable / recognized authority.

1.2.2 PIPING

Pipes of following types are to be used:

M.S pipes as per IS:1239 heavy grade(for pipes of sizes 150 mm N.B. and below) suitably lagged on the outside to prevent soil corrosion. M.S. pipes buried below ground shall also be suitably be lagged with 2 layers of 400 micron polythene sheet over 2 coats of bitumen.

M.S pipelines upto 150 mm dia shall be as per IS: 1239, Part-II (heavy grade) while pipelines above 150 mm dia shall be as per I.S.:3589.

All pipe clamps and supports shall be fabricated from MS steel sections and shall be galvanized before use at site. Welding of galvanized clamps and supports shall not be permitted.

Pipes shall be hung by means of expandable anchor fastener of approved make and design. The hangers and clamps shall be fastened by means of galvanized nuts and bolts. The size/diameter of the anchor fastener and the clamps shall be suitable to carry the weight of water filled pipe and dead load normally encountered.

Hangers and supports shall be thoroughly galvanized after fabrication. The selection and design of the hanger & support shall be capable of carrying the sum of all concurrently acting loads. They shall be designed to provide the required supporting effects and allow pipeline movements as necessary. All guides, anchor braces, dampener, expansion joint and structural steel to be attached to the building/structure trenches etc. shall be provided. Hangers and components for all piping shall be approved by the Consultants.

The piping system shall be tested for leakages at 2 times the operating pressure or 1.5 time shut-off pressure, whichever is highest including testing for water hammer effects.

Flanged joints shall be used for connections for vessels, equipment, flanged valves and also on two straight lengths of pipelines of strategic points to facilitate erection and subsequent maintenance work.

For pipes underground installation the pipes shall be buried at least one meter below ground level and shall have 230 mm x 230 mm masonry or concrete supports at least 300 mm high at 3m intervals. Masonry work to

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have plain cement concrete foundation (1 cement: 4 coarse sand : 8 stone aggregate) of size 380x380x75 thick resting on firm soil.

Mains below ground level shall be supported at regular intervals not exceeding 3.0 metres and shall be laid at least 2.0 metre away from the building.

1.2.3 PIPING INSTALLATION & SUPPORT

Tender drawings indicate schematically the size and location of pipes. The Contractor, on the award of the work, shall prepare detailed working drawings, showing the cross-sections, longitudinal sections, details of fittings, locations of isolating and control valves, drain and air valves, and all pipe supports. He must keep in view the specific openings in buildings and other structure through which pipes are designed to pass.

Piping shall be properly supported on, or suspended from, on stands, clamps, hangers as specified and as required. The Contractor shall adequately design all the brackets, saddles, anchor, clamps and hangers, and be responsible for their structural stability.

Pipe work and fittings shall be supported by hangers or brackets so as to permit free expansion and contraction. Risers shall be supported at each floor with Galvanized steel clamps. To permit free movement of common piping support shall be from a common hanger bar fabricated from Galvanized steel sections.

Pipe hangers shall be provided at the following maximum spacings:

Pipe Dia (mm)	Hanger Rod Dia (mm)	Spacing between Supports (m)
Up to 25	6	2
32 to 50	6	2.5
65 to 80	8	2.5

80 to 100	10	2.5
125 to 150	10	3.0
200 to 300	12	3.5

The end of the steel rods shall be threaded and not welded to the threaded bolt.

All pipe work shall be carried out in a proper workman like manner, causing minimum disturbance to the existing services, buildings, roads and structure. The entire piping work shall be organized in consultation with other agencies work, so that area can be carried out in one stretch.

Cut-outs in the floor slab for installing the various pipes area are indicated in the drawings. Contractor shall carefully examine the cut-outs provided and clearly point out wherever the cut-outs shown in the drawings, do not meet with the requirements.

Pipe sleeves, larger diameter than pipes, shall be provided wherever pipes pass through walls and slab and annular space filled with fiber glass and finished with retainer rings.

The contractor shall make sure that the clamps, brackets, saddles and hangers provided for pipe supports are adequate or as specified / approved by Consultants. Piping layout shall take due care for expansion and contraction in pipes and include expansion joints where required.

All pipes shall be accurately cut to the required sizes in accordance with relevant BIS codes and burrs removed before laying. Open ends of the piping shall be closed as the pipe is installed to avoid entrance of foreign matter. Where reducers are to be made in horizontal runs, eccentric reduces shall be used for the piping to drain freely. In other locations, concentric reduces may be used.

Automatic air valves shall be provided at all high points in the piping system for venting. All valves shall be of 15mm pipe size and shall be associated with an equal size gate valves. Automatic air valves shall be provided on hot water risers.

Discharge from the air valves shall be piped through a pipe to the nearest drain or sump. All pipes shall be pitched towards drain points.

Pressure gauges shall be provided as shown on the approved drawings. Care shall be taken to protect pressure gauges during pressure testing.

1.2.4 PIPE FITTINGS

Pipe fittings mean tees, elbows, couplings, unions, flanges, reducers etc and all such connecting devices that are needed to complete the piping work in its totality.

Fabricated fittings shall not be permitted for pipes diameters 50mm and below.

Fabricated fittings used on pipe size 65 mm & above shall be fabricated , welded in workshops. They shall be inspected by Project Manager before dispatch from the workshop. The welding procedures of the workshop should have been approved by the rules for spray system and applicable to hydrant and sprinkler system. For "T" connection, pipes shall be drilled and reamed. Cutting by gas or electrical welding shall not be permitted.

1.2.5 PROCEDURE FOR PYPKOTE / COATEK APPLICATION

i. Surface Preparation - The pipe surface shall be cleaned by a wire brush.

ii. Application of Primer - Pypkote / Coatek primer is to be applied on pipes immediately after cleaning. This is to prevent any further accumulation of rust on the pipe. This is a cold applied primer and is applied by brush.

iii. Application of Pypkote / Coatek 4 mm Tape - After the primer is applied on the pipe, it is allowed to dry for about 30 min. till it becomes touch dry. Before adhering the tape to the pipe, it is advisable to gently heat the primer coated pipe by a run of LPG torch. Remove the bottom polyethylene from the tape & then heat bottom surface of the tape by LPG torch or any heat source & start wrapping the tape to the pipe by heating the primer coated pipe & by removing the bottom polyethylene from the tape before wrapping better adhesion between the tape & pipe is obtained. Overlaps are maintained with a minimum of 12.5 mm.

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iv. Tape coating of weld joints - The tape is applied over the weld joints after the necessary welding & testing methods of the joints is completed. The procedure for application of tape shall be the same as bare pipe procedure. Overlaps on each side of the weld joints shall be 50 mm.

v. A final coat of White wash with water based cement paint is done immediately over the entire coated pipe.

1.2.6 JOINTING

Welded Joints

Joints between MS pipes and fittings shall be made with the pipes and fittings having "V" groove and welded with electrical resistance welding in an approved manner. But welding without "V" groove shall not be permitted.

All joints in the pipe line with welding fittings shall be seal welded after testing and the weld plus the adjoining portion shall be given two coats of zinc rich primer.

Flanged joints with flanges conforming to IS: 6392 shall be provided on

i. Straight runs at intervals not exceeding 25-30m on pipe lines of 50 mm dia and above and as directed by the Project Manager.

ii. For jointing all types of valves, appurtenances, pumps, connections with other type of pipes, to water tanks and other places necessary and as required for good engineering practice and as shown/noted on the drawings.

iii. Flanges shall be with GI bolts and nuts and 3mm insertion gasket of natural rubber conforming to IS: 11149.

1.3 Air Vessel

The air vessel shall be provided to compensate for slight loss of pressure in the system and to provide an air cushion for counter-acting pressure, surges, whenever the pumping sets come into operation. Air vessel shall conform to IS: 3844. It shall be normally half full of water, when the system is in normal operation. Air vessel shall be fabricated with 8 mm thick M.S. plate with dished ends and suitable supporting legs. It shall be provided with one 100 mm dia flanged connection from pump, one 25 mm drain with valve, one water level

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gauge and 25 mm sockets for pressure switches. The air vessel shall be tested to pressure for 12 hours at 2 times the operating pressure or 1.5 times the shut-off.

1.4 Air Cushion Tank

Every wet riser shall be provided with an air cushion tank at its top most point. The air cushion shall be provided with an automatic air release cock, 20 mm dia drain pipe, drain valve and shut off valve.

1.5 Fire Brigade Connection

The storage tank shall be provided with a 150 mm fire brigade pumping connection to discharge at least 2280 litres / minute into it. This connection shall not be taken directly into the side of the storage tank, but arranged to discharge not less than 150 mm above the top edge of the tank such that the water flow can be seen. The connection shall be fitted with stop valve in a position approved by the Project Manager. An overflow connection discharging to a drain point shall be provided from the storage tank.

The fire brigade connection shall be fitted with four numbers of 63mm instantaneous inlets in a glass fronted wall box at a suitable position at street level, so located as to make the inlets accessible from the outside of the building. The size of the wall box shall be adequate to allow hose to be connected to the inlets, even if the door cannot be opened and the glass has to be broken. Each box shall have fall of 25mm towards the front at its base and shall be glassed with wired glass with "FIRE BRIGADE INLET" painted on the inner face of the glass in 50 mm size block letter. Each such box shall be provided with a steel hammer with chain for breaking the glass.

In addition to the emergency fire brigade connection to the storage tank, a 150mm common connection shall be taken from the four 63mm instantaneous inlets direct to hydrant main so that the fire brigade may pump to the hydrants in the even of the hydrant pumps being out of commission. The connection shall be fitted with a sluice valve and reflux valve. Location of these valve shall be as per the approval of the Project Manager.

Two way collecting head with two numbers 63 mm instantaneous type inlets shall be connected to the sprinkler header. All other details shall be as described above.

1.6 System Drainage

The system shall be provided with suitable drainage arrangement with drain valves complete with all accessories.

1.7 Valve Chambers

Provision of suitable brick masonry chambers in cement mortar 1:5 (1 cement : 5 coarse sand) on cement concrete foundations 150 mm thick 1:5:10 mix (1 cement:5 fine sand : 10 graded stone aggregate 20 mm nominal size) with 15 mm thick cement plaster inside and outside finished with a plaster inside and outside finished with a floated coat of neat cement inside with cast iron surface box approved by fire brigade including excavation, back-filling complete shall be made.

1.8 Valves

1.8.1 BUTTERFLY VALVE

The butterfly valve shall be suitable for waterworks and rated for 300 P.S.I

The body shall be of cast iron to IS:210 in circular shape and of high strength to take the water pressure . The disc shall be heavy duty cast iron with anti corrosive epoxy or nickel coating.

The valve seat shall be of high grade elastomer or nitrile rubber. The valve is closed position shall have complete contact between the seat and the disc throughout the perimeter. The elastomeric rubber shall have a long life and shall not give away on continuous applied water pressure . The shaft shall be EN 8 grade carbon steel.

The valve shall be fitted between two flanges on either side of pipe flanges. The valve edge rubber shall be projected outside such that they are wedged within the pipe flanges to prevent leakages.

1.8.2 BALL VALVE

The ball valve shall be made forged brass and suitable for test pressure of pipe line. The valve shall be internally threaded to receive pipe connections.

The ball shall be made from brass and machined to perfect round shape and subsequently chrome plated. The seat of the valve body-bonnet gasket and gland packing shall be of Teflon.

The handle shall be provided with PVC jacket. The handle shall also indicate the direction of 'open' and 'closed' situations. The gap between the ball and the Teflon packing shall be sealed to prevent water seeping.

The handle shall also be provided with a lug to keep the movement of the ball valve within 90°. The lever shall be operated smoothly and without application of any unnecessary force.

1.8.3 GUN METAL VALVES

Gun metal Valves shall be used for smaller dia pipes, and for threaded connections. The Valves shall bear certification as per IS:778

The body and bonnet shall be of gun metal to IS:318. The stem gland and gland nut shall be of forged brass to IS:6912. The hand wheel shall be of cast iron to IS:210.

The Hand wheel shall be of high quality finish to avoid hand abrasions. Movement shall also be easy. The spindle shall be non rising type.

1.8.4 NON-RETURN VALVE

Non-Return valves shall be cast iron wafer type with cast iron body and gunmetal internal parts conforming to IS:5312.

1.8.5 PRESSURE RELIEF VALVE

Each System shall be provided with a Pressure Relief Valves. The Valve shall be spring actuated and set to operate as per field requirement. The Valve shall be constructed of bronze and provided with an open discharge orifice for releasing the water. The Valve shall be open lift type.

1.9 Pressure Switch

The pressure switches shall be employed for starting and shutting down operation of pumps automatically, dictated by line pressure. The Pressure Switch shall be diaphragm type. The housing shall be die cast aluminum, with SS 316 movement, pressure element and socket. The set pressure shall be adjustable.

The Switch shall be suitable for consistent and repeated operations without change in values. It shall be provided with IP:55 water and environment protection.

1.10 Pressure Gauge

Pressure gauge shall be provided near all individual connections of the hydrant system with isolation valves and near each flow switch assembly of the sprinkler system. Pressure gauge shall be 50 mm dia gunmetal bourdon type with gunmetal isolation ball valve, tapping and connecting pipe and nipple. The gauge shall be installed at appropriate height for easy readability.

1.11 Painting

All Hydrant and Spray pipes shall be painted with post office red colour paint. All G.I pipes shall first be cleaned thoroughly before application of primer coat. After application of primer coat two coats of enamel paint shall be applied. Each coat shall be given minimum 24 hours drying time. No thinners shall be used. Wherever required all pipe headers shall be worded indicating the direction of the pipe and its purpose such as "TO RISER NO.1" etc.

Painting shall be expertly applied, the paint shall not over run on surfaces not requiring painting such as walls, surfaces etc. Nuts and bolts shall be painted black, while valves shall be painted blue.

1.12 Excavation

Excavation for pipe lines shall be in open trenches to levels and grades shown on the drawings or as required at site. Pipe lines shall be burried with a minimum cover of 1 meter or as shown on drawings.

Wherever required Contractor shall support all trenches or adjoining structures with adequate timber supports, shoring and strutting.

On completion of testing in the presence of the Project Manager and pipe protection, trenches shall be backfilled in 150 mm layers and consolidated.

Contractor shall dispose off all surplus earth as directed by the Project Manager.

1.13 Anchor / Thrust Block

Contractor shall provide suitably designed anchor blocks in cement concrete/steel support to cater to the excess thrust due to work hammer and high pressure

Thrust blocks shall be provided at all bends, tees and such other location as determined by the Project Manager.

Exact location, design, size and mix of the concrete blocks/steel support shall be as shown on the drawings or as directed by the Project Manager prior to execution of work.

1.14 Fire Hydrants

1.14.1 EXTERNAL HYDRANTS

a. Contractor shall provide external hydrants. The hydrants shall be controlled by a cast iron Butter fly valve. Hydrants shall have instantaneous type 63mm dia outlets. The hydrants shall be double outlet conforming to IS:908 with CI duck foot bend and flanged riser or required height to bring the hydrant to correct level above ground.

b. Contractor shall provide for each external fire hydrant two numbers of 63mm dia. 15 m long controlled percolation hose pipe with gunmetal male and female instantaneous type couplings machine wound with GI wire (hose to IS:636 type certification) , gunmetal branch pipe with nozzle to IS:903. This shall be measured and paid for separately.

c. Each external hydrant hose cabinet shall be provided with a drain in the bottom plate.

d. Each external hydrant hose cabinet containing items as above shall also be provided with a nozzle spanner and a Fireman's Axe. This shall be measured and paid for separately.

e. Each hose cabinet shall be conspicuously painted with the letters "FIRE HOSE".

1.14.2 Internal Hydrants

a. Contractor shall provide on each landing and other locations as shown on the drawings double headed gunmetal landing valve with 100 mm dia inlet as per IS:5290, with shut off valves having cast iron wheels as shown on the drawings. Landing valve shall have flanged inlet and instantaneous type outlets as shown on the drawings.

b. Instantaneous outlets for fire hydrants shall be standard pattern and suitable for fire hoses.

c. Contractor shall provide for each internal fire hydrant station two numbers of 63 mm dia. 15 m long rubberized fabric lined hose pipes with SS male and female instantaneous type coupling machine would with GI wire (hose to IS:636 type 2 and couplings to IS:903 with IS certification), fire hose reel, gunmetal branch pipe with nozzle to IS:903. This shall be measured and paid for separately.

d. Contractor shall provide standard fire hose reels of 20mm dia high pressure dunlop rubber hose 36 m long with gunmetal nozzle, all mounted on a circular hose reel of heavy duty mild steel construction having cast iron brackets. Hose reel shall be connected directly to the wet riser with an isolating valve. Hose reel shall conform to IS:884 and shall be mounted vertically . This shall be measured and paid for separately.

e. Each internal hydrant hose cabinet shall be provided with a drain in the bottom plate. The drain point shall be lead away to the nearest general drain.

f. Each internal hydrant hose cabinet containing items as above shall also be provided with a nozzle spanner and a Fireman's Axe. The cabinet shall be recessed in the wall as directed. This shall be measured and paid for separately.

g. Each hose cabinet shall be conspicuously painted with the letters "FIRE HOSE".

1.14.3 Hose Reel

Hose reel shall conform to IS : 884, heavy duty, 20 mm dia length shall be 30 metre long fitted with gun metal chromium plated nozzle, mild steel pressed reel drum which can swing upto 170 degree with wall brackets of cast iron finished with red and black enamel complete.

1.14.4 Fire Hose

All hose pipes shall be of 63 mm diameter RRL/ CP as required, conforming to IS : 636 or IS : 8423. The hose shall be provided with copper alloy delivery coupling. The hose shall be capable of withstanding a bursting pressure of 35.7 Kg/Sq.cm without undue leakage or sweating. Hose shall be provided with instantaneous spring-lock, type couplings.

1.14.5 Branch Pipe, Nozzle

Branch pipes shall be of gun metal with loaded tin bronze ring at the discharge and to receive the nozzle and provided at the other with a leaded tin bronze ring to fit into the instantaneous coupling. Nozzle shall be of spray type of diameter of not less than 16 mm and not more than 25 mm. Nozzle shall be of loaded tin bronze branch pipe and nozzle shall be of instantaneous pattern conforming to Indian Standard - 903.

1.14.6 Hose Cabinet

Hose cabinet shall be provided for all internal and external fire hydrants. Hose cabinets shall be fabricated from 16 gauge MS powder coated sheet of fully welded construction with hinged double front door partially glazed (3 mm glass panel) with locking arrangement, stove enamelled fire red paint (shade No. 536 of IS:5) with "FIRE HOSE" written on it prominently (size as given in the schedule of quantities). Cabinet surfaces in contact with the walls shall not be powder coated but instead given two coats of anti-corrosive bitumastic paint.

1.14.7 Internal Hose Cabinet

Hose cabinet shall be of glass fronted with hinged door & lock. The cabinet shall be made of 16 gauge thick MS sheet and spray painted to shade No. 536 of IS:5. The hose cabinet shall be of size to accommodate the following:

i. Landing Valves (Single headed)
ii. Hose pipe
iii. Hose reel (30 mtr.)
iv. Branch pipes, nozzles (2 sets)
v. Fire man's axe and hand appliances

1.14.8 External Hose Cabinet

The hose cabinet shall be of size to accommodate the following:

i. Single/Double headed yard hydrant valve
ii. Hose pipe (2 length of 15 m)
iii. Branch pipes, nozzles (2 sets)
iv. Fire man's axe

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1.15 Sprinkler System

1.15.1 GENERAL SPECIFICATION

The scope of work shall include supply, commissioning, testing of the system as a whole. The spray heads are to be fixed into heavy quality black steel pipes, conforming to IS 1239 or any other approved specification. The size of pipe will vary from 20 mm to 150mm to suit the hydraulics of the system. The System shall conform to CFO Rules for the installation of sprinkler systems in general for 'Ordinary Hazard' category-in respect of design, density and spacing of sprinkler heads.

Reduction in pipe sizes shall not be made by use of bushings. All piping shall be done by means of welding, screwed & flanged jointing as per codes.

Due care shall be taken that sprinklers are not applied with paint at the time of applying paint to piping and fittings.

All control, drain, test and alarm valves shall be provided with signs to identify their purposes, functions, direction of flow the satisfaction of the Consultants.

1.15.2 AUTOMATIC Sprinkler.

Sprinkler heads shall be made of brass sufficiently strong, in compression to withstand any pressure, surge or hammer likely to occur in the system. The yoke & body shall be made of high quality gun metal brass with arms streamlined to ensure minimum interference with the spread of water. The deflector of suitable design shall be fitted to give even distribution of water over the area commanded by the Spray.

The sprinkler nozzle shall have 15mm nominal size of the orifice for ordinary hazard.

The orifice size shall be marked on the body or the deflector of the sprinkler.

Metal guards for protection of sprinkler against accidental or mechanical damage shall be provided as desired by the Project Manager.

Contractor shall submit detailed submittal and discharge spray pattern for the Sprinkler for the approval of consultant.

Operating Temperature

The Operating temperature at which the shall be 68 degree C or as specifically mentioned.

1.15.3 FLOW REQUIREMENTS

The flow requirement for sprinkler heads shall be specifically approved for the designated area of installation.

1.15.4 ORIFICE PLATES

For restricting pressure at lower levels in the sprinkler system, orifice plates of appropriate sizes shall be fitted at different floor levels, at the branching points from Riser Main.

The Diameter of such orifice shall not be less than 50% of the dia of pipe into which it is to be fitted, which shall not be less than 50mm dia. These orifice plates must be of stainless steel with plain central hole without burrs, and the thickness shall be 3mm for pipe size upto 80 mm, 6 mm for pipes from 80 to 125 mm dia and 9 mm for pipes greater than 125 mm dia. Such orifice plate must have a projecting identification tag.

The orifice plate shall fitted not less than two pipe internal diameters down stream of the outlet from any elbow or brand.

Contractor shall submit the design and identify location on drawing before installation.

1.15.5 INSTALLATION CONTROL VALVES

Each installation shall be provided with a set of installation control valves comprising:-

i. An Alarm Valve.
ii. A Water Motor Alarm & Gong.
iii. Installation valves shall be installed on the sprinkler circuits as shown on the drawings.

iv. Contractor shall submit detailed shop drawings showing the exact location, details of installation of the valves/alarm in all respects.
v. Installation valve shall comprise of a cast iron body with gunmetal trim, and double seated clapper check valves, pressure gauges, test valve and orifice assembly and drain valve with pressure gauges, turbine water gong including all accessories necessary and required and as supplied by original equipment manufacturer and required for full and satisfactory performance of the system. A cast iron isolation valve with lock and chain at the inlet of the installation valve shall be provided.

1.15.6 INSPECTION AND TEST VALVE ASSEMBLY

Inspection and testing of the automatic starting of the sprinkler system shall be done by providing an assembly consisting of gunmetal valves, gunmetal sight glass, bye-pass valve and orifice assembly as per approved drawing.

1.15.7 FLOW SWITCH

Flow switch shall have a paddle made of flexible and sturdy material of the width to fit within the pipe bore. The terminal box shall be mounted over the paddle/ pipe through a connecting socket. The Switch shall be potential free in either N O or N C position as required. The switch shall be able to trip and make / break contact on the operation of a single sprinkler head. The terminal box shall have connections for wiring to the Annunciation Panel. The flow switch shall have connections for wiring the seat shall be of S.S to the Annunciation Panel. The flow switch shall have IP: 55 protection.

The flow switch work at a triggering threshold bandwidth (flow rate) of 4 to 10 GPM. Further, it shall have a 'Retard' to compensate for line leakage or intermitted flows.

1.15.8 THE MAIN STOP VALVE

These shall be of cast iron body of requisite size. When closed, these will shut off supply of water to the installation.

A location plate must be fixed on the outside or an external wall, as near to the main stop valve as possible, bearing the following words on raised letters or other approved type letter.

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i. Sprinkler Stop Valve Inside: The word `sprinkler stop valve' shall be in letters of at least 35mm and the word "INSIDE" at least25mm in height. The words shall be painted white on black back ground.

ii. All stop valves shall be right handed i.e. they shall be so constructed that in order to shut the valve the spindle shall turn from left to right. There shall be an indicator which will show whether the valve is open or shut.

1.15.9 PIPES FOR DRAINAGE:

Spray pipes shall be so installed that the system can be thoroughly drained. As far as possible all pipes shall be arranged to drain to the installation drain valve as shown in the drawing for ordinary hazard system.

In the case of basement & other areas where spray pipe-work is below the installation drain valve & in other trapped points in the system, auxiliary valves of the following sizes shall be provided.

-20 mm valves for pipes upto 50mm dia.

-25 mm valves for 80mm dia pipe.

-50 mm valves for pipes larger than 80mm dia.

1.15.10 SYSTEM DESIGN

The entire spray installation shall be designed to make it a hydraulically balanced system. The pressure requirement at typical floors shall be designed between 2.5 bar and 3.5 bar.

1.16 Hand Held Fire Extinguishers

1.16.1 HAND APPLIANCES

Scope

Work under this section shall consist of furnishing all labour, materials, appliances and equipment necessary and required to install fire extinguishing hand appliances as per relevant specification of various authorities.

Without restricting to the generality of the foregoing, the work shall consists of the following:

Installation of fully charged and tested fire extinguishing hand appliances of A B C powder type as required and specified in the drawings and schedule of rates.

GENERAL REQUIREMENTS

Hand appliances shall be installed in easily accessible locations with the brackets fixed to the wall by suitable anchor fasteners.

Each appliance shall be provided with an inspection card indicating the date of inspection, testing, change of charge and other relevant data.

All appliances shall be fixed in a true workmanlike manner truly vertical and at correct locations.

Distribution / installation of fire extinguisher to be in accordance to IS:2190.

MEASUREMENT

Fire extinguishers shall be counted in numbers and include installation of all necessary items required as given in the specifications.

ABC TYPE DRY POWDER EXTINGUISHER

The Extinguisher shall be filled with ABC grade 40, Mono Ammonium Phosphate 40% from any approved manufacturer.

The capacity of the extinguisher when filled with Dry Chemical Powder (First filling) as per IS 4308, Part II, shall be 6 Kg +/-2% or 9 Kg +/- 3%.

The distribution of fire extinguishers to be as per IS 2190 – 1992.

It shall be operated upright, with a squeeze grip valve to control discharge. The plunger neck shall have a safety clip, fitted with a pin, to prevent accidental discharge. It shall be pressurised with Dry Nitrogen, as expellant. The Nitrogen to be charged at a pressure of 15 Kg/cm2

Body shall be of mild steel conforming to relevant IS Standards. The neck ring shall be also mild steel and welded to the body. The discharge valve body, shall be forged brass or leaded bronze, while the spindle, spring and siphon tube shall be of brass. The nozzle shall be of brass, while the hose shall be braided nylon. The body shall be cylindrical in shape, with the dish and dome welded to it. Sufficient space for Nitrogen gas shall be provided inside the body, above the powder filling.

The Neck Ring shall be externally threaded - the threading portion being 1.6 cm. The filler opening in the neck ring shall not less than 50 mm. Discharge nozzle shall be screwed to the hose. The design of the nozzle shall meet the performance requirement, so as to discharge at least 85% of contents upto a throw of 4 mtrs, continuously, at least for 15 seconds. The hose, forming part of discharge nozzle, shall be 500 mm long, with 10 mm dia internally for 5 Kg capacity and 12 mm for 10 Kg capacity. It shall have a pressure gauge fitted to the valve assembly or the cylinder to indicate pressure available inside. The extinguisher shall be treated with anti-corrosive paint, and it shall be labelled with words ABC 2.5 cm long, within a triangle of 5 cm on each face. The extinguisher body and valve assembly shall withstand internal pressure of 30 Kg/cm2 for a minimum period of 2 minutes. The pressure gauge shall be imported and suited for the purpose.

WATER TYPE EXTINGUISHER (Gas Pressure Type)

The Extinguishing medium shall be primarily water stored under normal pressure, the discharge being affected by release of Carbon Dioxide Gas from a 120 gms cylinder.

The capacity of Extinguisher, when filled upto the indicated level, shall be 9 ltr +/- 5%

The skin thickness of the Cylinder shall be minimum 4.0 mm, fabricated from Mild Steel sheet, welded as required, with dish and dome, being of same thickness, and of size not exceeding the diameter of body. The diameter of body to be not less than 150 mm and not exceeding 200 mm. The neck shall be externally threaded upto a minimum depth of 16 mm, and leaded tin bronze.

The cap shall be of leaded tin bronze, and screwed on the body upto a minimum of 1.6 cm depth, with parallel screw thread to match the neck ring. The siphon tube to be of brass or G.I. and the strainer of Brass. The cartridge holder, knob, discharge fittings and plunger to be of Brass/Leaded tin bronze, and plunger of

stainless steel, spring of stainless steel. The cap to have handle fixed to it. The discharge hose shall be braided nylon, of 10 mm dia and 600 mm long, with a nozzle of brass fitted at end.

The extinguisher shall be treated for anti-corrosion internally and externally, and externally painted with Fire Red paint. The paint shall be stove enamelled/powder coated. The cartridge shall be as per IS, and have 60 gm net carbon dioxide gas for expelling. The extinguisher, body and cap shall be treated to an internal hydraulic pressure of 25 Kg/cm2. It shall have external marking with letter A, of 2.5 cm height, in block letters within a triangle of 5 cm each side. The extinguisher shall be upright in operation, with the body placed on ground and discharge tube with nozzle held in one hand to give a throw of not less than 6 mtr, and continue so for atleast 60 secs. The extinguisher body shall be clearly marked with ISI stamp (IS 940).

CARBON DIOXIDE EXTINGUISHER

The Carbon Dioxide Extinguisher shall be as per IS: 2878

The body shall be constructed of seamless tube conforming to IS:7285 and having a convex dome and flat base. Its dia shall be maximum 140 mm, and the overall height shall not exceed 720 mm.

The discharge mechanism shall be through a control valve conforming to IS:3224. The internal syphon tube shall be of copper aluminium conforming to relevant specifications.

Hose Pipe shall be high pressure braided Rubber hose with a minimum burst pressure of 140 Kg/cm2 and shall be approximately 1.0 meter in length having internal dia of 10 mm. The discharge horn shall be of high quality unbreakable plastic with gradually expanding shape, to convert liquid carbon dioxide into gas form. The hand grip of Discharge horn shall be insulated with Rubber of appropriate thickness.

The gas shall be conforming to IS:307 and shall be stored at about 85 Kg/cm2. The expansion ratio between stored liquid carbon dioxide to expanded gas shall be 1:9 times and the total discharge time (effective) shall be minimum 10 secs and maximum 25 secs.

The extinguisher shall fulfill the following test pressures:

Cylinder: 236 Kg/cm2

Control Valve: 125 Kg/cm2

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Burst Pressure of Hose: 140 Kg/cm2 minimum

It shall be an Upright type. The cylinder, including the control valve and high pressure Discharge Hose must comply with relevant Statutory Regulations, and be approved by Chief Controller of Explosives, Nagpur and also bear IS marking.

The Extinguisher including components shall be IS marked.

1.17 Fire Pumps And Allied Equipments

1.17.1 SCOPE

Work under this section shall consist of furnishing all labour, materials, equipment and appliances necessary and required to completely install electrically operated and diesel driven pumps and as required by drawings and specified hereinafter or given in the schedule of rates.

i. Electrically operated pumps with motors and diesel engine driven pumps with diesel engine, common base plates, coupling, coupling guard and accessories.
ii. Automatic starting system with all accessories, wiring and connections and pressure switches.
iii. Motor control centre.
iv. Annunciation system with all accessories wiring and connections.
v. Pressure gauges with isolation valves and piping, bleed and block valves.
vi. Suction strainers and accessories.
vii. Vibration eliminator pads and foundation bolts.
viii. Leak-off drain shall be led to the nearest floor drain.

1.17.2 GENERAL REQUIREMENTS

Pumps shall be installed true to levels on suitable concrete foundations. Base plate shall be firmly fixed by properly grouted foundation bolts.

Pumps and motors shall be truly aligned by suitably instruments. Record of such alignment shall be furnished to the Project Manager.

All pump connections shall be standard flanged type with number of bolts as per relevant standard requirement for the working pressure. Companion flanges shall be provided with the pumps.

Manufacturers' instructions regarding installation, connections and commissioning shall be strictly followed.

Contractor shall provide necessary test certificates, type test certificates, performance curves and NPSH curves of the pumps from the manufacturer when called for. The contractor shall provide facilities to the Project Manager & Consultant for inspection of equipment during manufacturing and also to witness various tests at the manufacturer's works without any cost to the Project Manager or Consultant.

Seismic isolation and clamping for each pump and flexible connection on the suction as well as the discharge side shall be provided.

The contractor shall submit with this tender a list of recommended spare parts for three years of normal operation and quote the prices for the same as a separate submittal / annexure.

1.17.3 ELECTRIC FIRE PUMP

General

The electric fire pump shall be suitable for automatic operation complete with necessary electric motor and automatic starting gear, suitable for operation on 415 volts, 3 phase, 50 Hz. A.C. system. Both the motor and the pump shall be assembled on a common base plate, fabricated M.S. channel type or cast iron type.

Drive

The pump shall be direct driven by means of a flexible coupling. Coupling guard shall also be provided.

1.17.4 FIRE PUMP

The fire pump shall be horizontally mounted centrifugal type. It shall have a capacity to deliver 2280 lpm as specified, and developing adequate head so as to ensure a minimum pressure of 3.5 Kg/Sq.cm at the highest and the farthest outlet.

The pump shall be capable of giving a discharge of not less than 150 per cent of the rated discharge, at a head of not less than 65 per cent of the rated head. The shut off head shall be within 120 per cent of the rated head.

The pump casing shall be of cast iron to grade FG 200 to IS: 210 and parts like impeller, shaft sleeve, wearing ring etc. shall be of non-corrosive metal like bronze/brass/gun metal. The shaft shall be of stainless steel. Provision of mechanical seal shall also be made.

Bearings of the pump shall be effectively sealed to prevent loss of lubricant or entry of dust or water. The pump shall be provided with a plate indicating the suction lift, delivery head, discharge, speed and number of stages. The pump casing shall be designed to withstand 1.5 times the working pressure.

Provision of Jockey Pump for low and high zone shall be made. The pump shall be vertical SS type and of detail as in schedule of quantity. Contractor shall verify that the capacity of the Jockey pump shall not be less than 3% (Minimum 180 LPM) and not more than 10% of the installed pump capacity.

Motor

The motor shall be squirrel cage A.C. induction type suitable for operation on 415 volts 3 phase 50 Hz. system. The motor shall be totally enclosed fan cooled type conforming to protection clause IP 55. The class of insulation shall be F. The synchronous speed shall be 1500 RPM as specified. The motor shall be rated for continuous duty and shall have a horse power rating necessary to drive the pump at 150 per cent of its rated discharge with at least 65 per cent rated head. The motor shall conform to I.S.325-1978.

Motor Starter

The motor starter shall be as per detail in MCC. The unit shall include suitable current transformer and ammeter of suitable range on one line to indicate the current. The starter shall not incorporate under voltage, no voltage trip overload or SPP.

The starter assembly shall be suitably integrated in the power and control panel for the wet riser system & sprinkler system.

1.17.5 DIESEL FIRE PUMP

General

The diesel pump set shall be suitable for automatic operation complete with necessary automatic starting gear, for starting on wet battery system and shall be complete with all accessories. Both engine and pump shall be assembled on a common base plate.

Drive

The pump shall be only direct driven by means of a flexible coupling. Coupling guard shall also be provided. The speed shall be 1800 RPM as specified.

Fire Pump

The fire pump shall be horizontally mounted centrifugal. It shall have a 2280lpm capacity to deliver as specified, and developing adequate head so as to ensure a minimum pressure of 3.5 Kg/Sq.cm at the highest and the farthest outlet. The pump shall be multi stage as specified. The pump shall be capable of giving a discharge of not less than 150% of the rated discharge at a head of not less than 65% of the rated head. The shut off head shall be within 120% of the rated head.

The pump casing shall be of cast iron to grade FG 200 to IS 210 and parts like impeller, shaft sleeves, wearing-ring etc. shall be of non-corrosive metal like bronze/brass/gun metal. The shaft shall be stainless steel. Provision of mechanical seal shall also be made.

The pump casing shall be designed to withstand 1.5 times the working pressure.

Bearing of pump shall be effectively sealed to prevent loss of lubricant or entry of dust or water.

Diesel Engine

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Engine Rating - The engine shall be cold starting type without the necessity of preliminary heating of the engine cylinders or combustion chamber (for example, by wicks, cartridge, heater, plugs etc.). The engine shall be multi cylinder/vertical 4 stroke cycle, aircooled, diesel engine, developing suitable HP at the operating speed specified to drive the fire pump. Continuous capacity available for the load shall be exclusive of the power requirement of auxiliaries of the diesel engine, and the after correction for altitude, ambient temperature and humidity for the specified environmental conditions. This shall be at least 20% greater than the maximum HP required to drive the pump at its duty point. It shall also be capable of driving the pump at 150% of the rated discharge at 65% of rated head. The engine shall be capable of continuous non-stop operation for 8 hours and major overhaul shall not be required before 3000 hours of operation. The engine shall have 10% overload capacity for one hour in any period of 12 hours continuous run. The engine shall accept full load within 15 seconds from the receipt of signal to start. The diesel engine shall conform to BS 649/IS 1601/IS 10002, all amended up to date.

a. Engine Accessories - The engine shall be complete with the following accessories:-

Fly wheel dynamically balanced.

Direct coupling for pump and coupling guard.

Corrosion Resistor.

Air cleaner.

Fuel service tank support, and fuel oil filter with necessary pipe work.

Elect. starting battery (2X24 v).

Exhaust silencer with necessary pipe work.

Governor.

Instrument panel housing all the gauges, including Tachometer, hour meter and starting switch with key (for manual starting).

Necessary safety controls.

b. Fuel System - The fuel shall be gravity fed from the engine fuel tank to the engine driven fuel pump. The engine fuel tank shall be mounted either over or adjacent to the engine itself or suitably wall mounted on bracket. The fuel filter shall be suitably located to permit easy servicing.

All fuel tubing to the engine shall be with copper, with flexible hose connections where required. Plastic tubing shall not be permitted.

The fuel tank shall be of welded steel construction (3 mm. thick) and of capacity sufficient to allow the engine to run on full load for at least 8 hours. The tank shall be complete with necessary wall mounted supports, level indicator (protected against mechanical injury) inlet, outlet, overflow connections and drain plug and piping to the engine fuel tank. The outlet shall be so located as to avoid entry of any sediments into the fuel line to the engine.

As semi rotary hand pump for filling the daily service tank together with hose pipe 5 mtr. long with a foot valve etc. shall also form part of the scope of supply.

c. Lubricating Oil System- Forced feed Lub. Oil system shall be employed for positive lubrication. Necessary Lub. oil filters shall be provided, located suitably for convenient servicing.

d. Starting System- The starting system shall comprise necessary batteries (2x24v), 24 volts starter motor of adequate capacity and axle type gear to match with the toothed ring on the fly wheel. Bi metallic relay protection to protect starting motor from excessively long cranking runs suitably integrated with engine protection system shall be included within the scope of the work.

The capacity of the battery shall be suitable for meeting the needs of the starting system.

The battery capacity shall be adequate for 10 consecutive starts without recharging with cold engine under full compression.

The scope shall cover all cabling, terminals, initial charging etc.

e. Exhaust System - The exhaust system shall be complete with silencer suitable for outdoor installation and silencer piping including bends and accessories needed for a run of 15 metre from the engine manifold.(Adjustment rates for extra lengths shall also be given). The total back pressure shall not exceed the engine manufacture's recommendation. The exhaust piping shall be suitably supported.

f. Engine shut down mechanism- This shall be auto/ manually operated and shall return automatically to the starting position after use.

g. Governing System- The engine shall be provided with an adjustable governor to control the engine speed within 5% of its rated speed under all conditions of load up to full load. The governor shall be set to maintain rated pump speed at maximum pump load.

h. Engine Instrumentation- Engine instrumentation shall include the following:-

i. Lub. oil pressure gauge.
ii. Lub. oil temperature gauge.
iii. Water pressure gauge.
iv. Water temperature gauge.
v. Tachometer.
vi. Hour meter.

The instrumentation panel shall be suitably resident mounted on the engine.

Engine Protection Devices- Following engine protection and automatic shut down facilities shall be provided:-

i. Low lub.oil pressure.
ii. High cooling water temp.
iii. High lub.oil temperature.
iv. Over speed shut down.

i. Pipe Work - All pipe lines with fittings and accessories required shall be provided for fuel oil, lub.oil and exhaust systems, copper piping of adequate sizes, shall be used for Lub.oil and fuel oil. M.S. piping will be permitted for exhaust.

j. Anti Vibration Mounting- Suitable vibration mounting duly approved by Project Manager shall be employed for mounting the unit so as to minimise transmission of vibration to the structure. The isolation efficiency achievable shall be clearly indicated.

k. Battery Charger-Necessary float and boost charger shall be incorporated in the control section of the power and control panel, to keep the battery in trim condition. Voltmeter to indicate the state of charge of the batteries shall be provided.

1.17.6 PUMP SETS ASSEMBLY

On the main fire spray and hydrant headers near pump sets a 150 mm dia by-pass valve located in an accessible location shall be provided along with a rate of flow rota meter calibrated in 1 pm and able to read 200% of the rated pump capacity. The delivery shall be connected to the fire tank.

Each and every pump set assembly shall be provided with suction valve (only for positive suction head), discharge valve, non-return valve and 150 mm dia Bourdon type pressure gauge with isolation valve.

1.17.7 FLEXIBLE CONNECTORS

On all suction and delivery lines double flanged reinforced neoprene flexible pipe connectors shall be provided. Connectors should be suitable for maximum working pressure of each pipe line on which it is mounted and tested to a test pressure of 1:5 time the operating pressure. Length of the connector shall be as per manufacturers standard.

1.17.8 INTERLOCKING

The following inter-locking between the two main fire pumps (i.e. wet riser pump & sprinkler pump), the jockey pump and the diesel engine driven pump.

Only one category of pumps will work at a time i.e. either jockey pump or main fire pumps (wet riser and sprinkler, both the wet riser and sprinkler can come up at a time) or diesel driven pump.

	JOCKEY PUMP	WET RISER PUMP	SPRINKLER DIESEL PUMP	DRIVEN PUMP
i.	ON	OFF	OFF	OFF
ii.	OFF	ON	OFF	OFF
iii.	OFF	OFF	ON	OFF
iv.	OFF	ON	ON	OFF
v.	OFF	OFF	ON	ON
vi.	OFF	OFF	OFF	ON
vii	OFF	ON	OFF	ON

1.17.9 ANNUNCIATION PANEL

One solid state electronic annunciation panel, fully wired with visual display and audible alarm unit shall be provided to indicate :

a. Flow condition in any flow switch indicating the area of distress and fire alarm.
b. Starting and stopping of each hydrant pump.
c. Starting and stopping of each jockey pump.
d. Starting and stopping of each sprinkler pump.
e. Failure of Hydrant / Sprinkler pump to start.
f. High level in fire water storage tank compartment.
g. Low level in fire water storage tank compartment.
h. Low level in HSD day tank of the fire pump.

The panel shall be factory fabricated, wired and tested. All details shall be submitted with the tender.

The annunciation panel shall be located in the security office / reception on the ground floor or as instructed by the Project Manager.

1.17.10 VIBRATION ISOLATION

The pump set shall be mounted on rolled steel channels and 150 mm thick inertia block spring and ribbed neoprene vibration isolation mounting shall support the inertia block onto a 100 mm thick concrete plinths. The spring mountings shall have a maximum deflection of15 mm. Reference shall be made to the section on "Nose and Vibration" for further technical requirements.

2.0 COMMISSIONING & GUARANTEE

2.1 Scope Of Work

Work under this section shall be executed as per rates . The rates quoted in this tender shall be inclusive of the works given in this section.

Contractor shall provide all tools, equipment, metering and testing devices required for the purpose.

On award of work, Contractor shall submit a detailed proposal giving methods of testing and gauging the performance of the equipment to be supplied and installed under this contract.

All tests shall be made in the presence of the Architect or his representative or any inspecting authority. At least five working days notice in writing shall be given to the inspecting parties before performing any test.

Water flow rates of all equipment and in pipe lines through valves shall be adjusted to design conditions. Complete results of adjustments shall be recorded and submitted.

Contractor shall ensure proper balancing of the hydraulic system and for the pipes / valves installed in his scope of work by regulating the flow rates in the pipe line by valve operation. The contractor shall also provide permanent Tee connection (with plug) in water supply lines for ease of installing pressure gauge, temperature gauge & rota meters. Contractor shall also supply all required pressure gauge, temperature gauge & rotameter for system commissioning and balancing. The balancing shall be to the satisfaction of Consultant / Project Manager.

Three copies of all test results shall be submitted to the Authority's Engineer / PMC in A4 size sheet paper within two weeks after completion of the tests.

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2.2 Precommissionnig

On completion of the installation of all pumps, piping, valves, pipe connections, insulation etc. the Contractor shall proceed as follows:

a. Prior to start-up and hydraulic testing, the Contractor shall clean the entire installation including all fitments and pipe work and the like after installation and keep them in a new condition. All pumping systems shall be flushed and drained at least once through to get rid of contaminating materials. All pipes shall be rodded to ensure clearance of debris, cleaning and flushing shall be carried out in sections as the installation becomes completed.
b. All strainers shall be inspected and cleaned out or replaced.
c. When the entire systems are reasonably clean, a pre-treatment chemical shall be introduced and circulated for at least 8 hours. Warning signs shall be provided at all outlets during pre-treatment. The pre-treatment chemical shall:
   - Remove oil, grease and foreign residue from the pipe work and fittings;
   - Pre-condition the metal surfaces to resist reaction with water or air.
   - Establish an initial protective film;
   - After pre-treatment, the system shall be drained and refilled with fresh water and left until the system is put into operation.
   - Details and procedures of the pre-treatment shall be submitted to the Architect for approval.
d. Check all clamps, supports and hangers provided for the pipes.
e. Check all the equipment, piping and valves coming under hot water system and operate each and every valve on the system to see if the valves are functioning properly. Thereafter conduct & hydro test of the system as for (b) above.
f. Fill up pipes with water and apply hydrostatic pressure to the system as given in the relevant section of the specification. If any leakage is found, rectify the same and retest the pipes.

Fire Protection System

a. Check all hydrant valves by opening and closing : any valve found to be open shall be closed.
b. Check all the piping under hydro test.
c. Check that all suction and delivery connections are properly made for all pump sets.
d. Check rotation of each motor after decoupling and correct the same if required.
e. Test run each pump set.
f. All pump sets shall be run continuously for 8 hours (if required with temporary piping back to the tank).

Commissioning and Testing

a. Pressurise the fire hydrant system by running the jockey pump and after it attains the shutoff pressure of the pump , then
b. Open bypass valve and allow the pressure to drop in the system. Check that the jockey pump cuts-in and cuts-out at the preset pressure. If necessary adjust the pressure switch for the jockey pump. Close by-pass valve.
c. Open hydrant valve and allow the water to below into the fire water tank in order to avoid wastage of water. The main fire pump shall cut-in at the preset pressure and shall not cutout automatically on reaching the normal line pressure. The main fire pump shall stop only by manual push button. However the jockey pump shall cut-out as soon as the main pump starts,
d. Switch off the main fire pump and test check the diesel engine driven pump in the same manner as the electrically driven pump,
e. When the fire pumps have been checked for satisfactory working on automatic controls, open fire hydrant valves simultaneously and allow the hose pipes to discharge water into the fire tank to avoid wastage.
f. Check each landing valve, male and female couplings and branch pipes, for compatibility with each other. Any fitting which is found to be incompatible and do not fit into the other properly shall be replace by the Contractor. Each landing valve shall also be checked by opening and closing under pressure.
g. Check all annunciations by simulating the alarm conditions at site.

Spray System

a. Start the pump and develop the required pressure in the sprinkler pipes.
b. Open the test valve to test the automatic starting of the pump. If necessary , make necessary adjustments in the setting of pressure switch. The sprinkler water gong alarm shall also operate when the test valve is open. This operation is to be done for each and every section of the sprinkler system and the alarm for each section (via flow switch) shall be checked for operation.
c. After satisfactory operation of the pump the Contractor shall set up mock fire and test the system.
d. Check all annunciations by simulating the alarm conditions at site.

2.3 Statutory Authorities' Tests And Inspections

As and when notified in writing or instructed by the Architect, the Contractor shall submit shop drawing and attend all tests and inspections carried out by Local Fire Authorities, Water Authority and other Statutory Authorities, and shall forthwith execute free of charge any rectification work ordered by the Architect as a result of such tests and inspections where these indicate non-compliance with Statutory Regulations. Some of these tests may take place after the issue of Practical Completion of the Main Contract and the Contractor shall make all allowances in this respect.

The Contractor shall be responsible for the submission of all necessary forms and shop drawings to the Statutory Authorities which shall conform in layout to the latest architectural plans submitted to and kept by these Authorities.

The submission shall comply with the requirements set forth in the current Codes of Practice and circular letters of the Statutory Authorities. The shop drawings to be submitted shall be forwarded to the Architect for checking before submission.

The Contractor shall allow for at least two submissions of complete sets of shop drawings to the Authorities, one to be made within six months after the award of the Contract but not less than six weeks before the inspection. The Architect may at his discretion instruct the Contractor for additional submissions to the Local Authorities whenever necessary.

The Contractor shall notify the Architect at least seven days in advance of his application for local Authority tests and inspections. On receipt of a confirmed date for test and inspection the Contractor shall inform the Architect without delay.

2.4 Final Acceptance Tests

Following commissioning and inspection of the entire installation, and prior to issue of the Completion Certificate, the Contractor shall carry out final acceptance tests in accordance with a programme to be agreed with the Architect.

Should the results of the acceptance tests show that plant, systems and/or equipment fail to perform to the efficiencies or other performance figures as given in this Specification, the Contractor shall adjust, modify and if necessary replace the equipment without further payment in order that the required performance is obtained.

Where acceptance tests are required by the relevant Authorities having jurisdiction, these tests shall be carried out by the Contractor prior to the issue of Completion Certificate to the acceptance of the Authorities.

2.5 Rejection Of Installation / Plant

Any item of plant or system or component which fails to comply with the requirements of this Specification in any respect whatsoever at any stage of manufacture, test, erection or on completion at site may be rejected by the Architect either in whole or in part as he considers necessary/appropriate. Adjustment and/or modification work as required by the Architect so as to comply with the Authority's requirements and the intent of the Specification shall be carried out by the Contractor at his own expense and to the satisfaction of the Authority/Architect.

After works have been accepted, the Contractor may be required to carry out assist in carrying out additional performance tests as reasonably required by the Architect/Employer.

2.6 Warranty And Handover

The Contractor shall warrant that all plant, materials and equipment supplied and all workmanship performed by him to be free from defects of whatsoever nature before handover to the Owner.

2.7 Handing Over Of Documents

All testing and commissioning shall be done by the Contractor to the entire satisfaction of the Owner's site representative and all testing and commissioning documents shall be handed over to the Owner's site representative.

The Contractor shall also hand over all maintenance and operation manuals, all certificates and all other documentation as per the terms of the contract to the Owner's site representative.

2.8 Pipe Colour Code

Sr. No.	Pipe Lines	Ground / Base Colour	First Colour Band	Second Colour Band
1	Cooling Water	Sea Green	French Blue	
2	Boiler feed	Sea Green	Gulf Red	

3	Condensate	Sea Green	Light Brown	
4	Drinking Water (All cold water lines after filter)	Sea Green	French Blue	Single Red
5	Treated Water (Soft Water)	Sea Green	Light Orange	
6	Domestic Hot Water	Sea Green	Light Grey	
7	Compressed air upto 15/Kg/Sqcm	Sky Blue		
8	Steam	Silver Grey		
9	Drainage (Storm Water)	Black		
10	Drainage (Sewage Water)	Brown		
11	Gas	Canary Yellow		
12	Fire System	Post Office Red		

2.9 Check List For Commissioning

i. Fire Protection System

a. Check all hydrant & other valves by opening and closing. Any valve found to be open shall be closed.
b. Check all clamps, supports and hangers provided for the pipes.
c. All the pump sets shall be run continuously for 30 minutes (with temporary piping back to tank from the nearest hydrant, using canvas hose pipes).
d. Fire Hydrant System - Pressurise the fire hydrant system by running the jockey pump and after it attains the shutoff pressure of the pump, then

Open bypass valve and allow the pressure to drop in the system. Check that the jockey pump cuts-in and cuts-out at the preset pressure. If necessary adjust the pressure switch for the jockey pump. Close by-pass valve.

Open hydrant valve and allow the water to flow into the fire water tank in order to avoid wastage of water. The main fire pump shall cut-in at the preset pressure and shall not cutout automatically

on reaching the normal line pressure. The main fire pump shall stop only by manual push button. However the jockey pump shall cut-out as soon as the main pump starts,.

Operate booster pump continuously for 30 minutes with piping back to underground tanks from the hydrant nearest to plant room.

Check each landing valve, male and female couplings and branch pipes, for compatibility with each other. Any fitting which is found to be incompatible and do not fit into the other properly shall be replaced by the Contractor. Each landing valve shall also be checked by opening and closing under pressure.

Check air cushion tanks on the terrace for proper functioning.

ii. Water Supply / Water Treatment Equipment & Hot Water System Common

a. Operate each and every valve on the system to see if the valves are functioning properly.
b. Check all clamps, support and hangers provided for the pipes.
c. Check rotation of each motor and correct the same if required.
d. All the pumps shall run continuously for one hour. Record the pressure and motor current and voltage readings.
e. Check all annunciations by simulating the alarm conditions if any at site.

3.0 Fire Alarm System.

1. FIRE PANEL :-

FIRE DETECTION & ALARM SYSTEM

1. General: - Fire alarm system shall be designed so as to detect all type of fires at the

Earliest possible time and give warning at the fire alarm control panel, repeater panel if

Proposed and also at the locations where fire has occurred, so that timely action can be

Taken to product life and property. The scope of work includes obtaining initial and final approvals (NOC) for the systems from local Authorities like state fire service and liaison work with the department.

The type of system shall conventional type fire detection and alarm system. The Fire alarm control panel, detectors and other related devices used in the system shall Conform to international standards UL/LPCB/FM.

2. **Fire Alarm Control Panel:** - The FACP shall be of microprocessor based design having the required number of outgoing zones to connect conventional type detectors and devices. The panel shall have maintenance free battery, charger and automatic change over from Mains to battery. Battery shall be capable of supporting the system for at least 24 hours of Continuous normal operation.

Detectors: - Detectors used shall be of conventional type capable of giving exact location of fire. Detector shall be of photoelectric type which shall sense the products of combustion at the very early stage. In locations where heat is likely to rise rapidly such as kitchen heat detectors shall be used. Loss of sensitivity due to aging or dust should be automatically compensated by software in the control panel. Visual indication shall be provided of LED on the detector housing to indicate healthy operation, fault and alarm. There shall be provision for remote indication by LED for the above states whenever detector is mounted inside closed rooms or above false ceiling. Detector shall conform to UL/FM/LPCB. The detectors and the bases over which the detectors would be mounted shall be of same make and shall be compatible for interchange of detectors.

Hooter & Manual Call Points: -Shall also be Conventional type with operating instruction ("IN CASE OF FIRE BREAK GLASS") printed on the facia housed in a suitable housing and mounted at operating height of 1.2 meter. The MCP shall be break glass type of pull

down type. The MCP shall have built in addressing feature. Coupling a conventional MCP with a monitor module is not acceptable.

Wiring: - Shall be carried out by the contractor with 1.5sq. mm. FRLS sheathed, PVC insulated copper conductor two core armored cable . The contractor shall indicate the layout of detectors, MCPs and configuration of wiring including colour coding to be done. The design of the loop shall be such that not more than 90% of the loop capacity of the panel is utilized with addressable devices connected in one loop conduits shall be

painted in P O red and approved by Authority's Engineer / PMC

FIRE PUMPS & MOTOR

3.1 Electrical Driven Main Fire & Sprinkler Pumps

Make / Manufacturer :

Quantity :

Liquid Handed :

Liquid Temp deg.C :

Special Gravity of Liquid :

Suction :

Rated Discharge at Low Zone Head :

Rated Discharge at High Zone Head :

Actual Discharge at Low Zone Head :

Actual Discharge at High Zone Head :

Model :

Horizontal / Design :

Speed / No. of Stages :

Impeller Dia (Maximum) :

Suction / Delivery Size :

Efficiency at Rated Capacity & Head :

KW required at rated capacity & head :

Shut Off Head :

Material of Construction

Pump Casing :

Impeller :

Pump Shaft :

Shaft Sleeve :

Casing Wearing Ring :

Base Plate :

Mechanical Seal :

Make of Mechanical Seal :

Wheather pumps is capable of discharging 150% of rated capacity at a head not less than 65% of rated head.
:

PRAFULVED INFRA PVT. LTD. NAGPUR

Whether automatic priming arrangement included :

Description of Motors

Make :

Model No. :

Type :

Frame size :

Speed (RPM) :

Rated Capacity (Power) :

Full load current :

Enclosure :

Coupling / Pulley :

Class of Insulation

Size of Foundation

For complete coupled set mounted over MS base frame :

3.2 Diesel Engine Driven Pump

Make / Manufacturer :

Quantity :

Liquid Handed :

Liquid Temp deg.C :

Special Gravity of Liquid :

Suction :

Rated Discharge at Low Zone Head :

Rated Discharge at High Zone Head :

Actual Discharge at Low Zone Head :

Actual Discharge at High Zone Head :

Model :

Horizontal / Design :

Speed / No. of Stages :

Impeller Dia (Maximum) :

Suction / Delivery Size :

Efficiency at Rated Capacity & Head :

KW required at rated capacity & head :

Shut Off Head :

Material of Construction

Pump Casing :

Impeller :

Pump Shaft :

Shaft Sleeve :

Casing Wearing Ring :

Base Plate :

Mechanical Seal :

Make of Mechanical Seal :

Wheather pumps is capable of discharging 150% of rated capacity at a head not less than 65% of rated head.
:

PRAVULVED INFRA PVT. LTD.

Whether automatic priming arrangement included :

Description of Engine

Make :

Model No. :

Type :

Frame size :

Speed (RPM) :

Rated Capacity (Power) :

Full load current :

Enclosure :

Coupling / Pulley :

No of Cylinder :

Fuel Pump & Water pump detail :

Engine Cooling & Oil System :

Diesel Oil tank capacity :

PRAFULVED INFRA PVT. LTD. NAGPUR

Fuel Oil storage shall ensure working of pump for number of hours :

Size of Foundation

For complete coupled set mounted over MS base frame :

3.3 Jockey Pump

(Please submit separate data sheet for each type of pump)

Liquid Handed :

Liquid Temp deg.C :

Special Gravity of Liquid :

Suction :

Rated Discharge at Low Zone Head :

Rated Discharge at High Zone Head :

Actual Discharge at Low Zone Head :

Actual Discharge at High Zone Head :

Model :

Horizontal / Design :

Speed / No. of Stages :

Impeller Dia (Maximum) :

Suction / Delivery Size :

Efficiency at Rated Capacity & Head :

KW required at rated capacity & head :

Shut Off Head :

Material of Construction

Pump Casing :

Impeller :

Pump Shaft :

Shaft Sleeve :

Casing Wearing Ring :

Base Plate :

Mechanical Seal :

Make of Mechanical Seal :

PRAFULVED INFRA PVT. LTD. NAGPUR

Description of Motor

Make :

Model No. :

Type :

Frame size :

Speed (RPM) :

Rated Capacity (Power) :

Full load current :

Enclosure :

Coupling / Pulley :

Size of Foundation

For complete coupled set mounted over MS base frame :

3.4 Piping

15 NB TO 50 NB :

15 TO 50 NB Fittings :

65 NB TO 150 NB Pipes

65 NB TO 150 NB Fittings

200 NB ONWARDS Pipes

200 NB ONWARDS Fittings

Flanges

Gaskets

3.5 Hydrant Valves

Technical Specifications

Item :

Working Pressure :

Code for Design Mft. :

Construction Features

Type of Stem

Type of Inlet

Type of Outlet

Flange Drilling

Material of Construction

Body and Bonnet :

Stop Valve, Valve Seat :

Check nut & gland nut :

3.6 PRESSURE GAUGE

Technical Specifications :

Working Pressure :

Code for Design Mft. :

Scale range :

Construction Features

Case :

Pointer :

Dial Size :

Dial Lettering :

Process Connection :

Material of Construction

Case :

Movement :

Block :

3.7 PRESSURE SWITCHES

Technical Specifications :

Item :

Working Pressure :

Scale range :

Construction Features

Protection :

Cable Entry :

Process Connection :

Repeatability :

Switch

Type :

No. of contacts :

Contact Rating :

Material of Construction

Enclosure :

Pressure element :

Wetted Parts :

STANDARD AND CODES.

1. IS – 1648-1961 Code of practice for fire safety of building (general) fire fighting equipment and maintenance.

2. IS – 3844-1966 Code of practice for installation of internal fire hydrant in multi store building.

3. IS – 2217-1963 Recommendation for providing first aid and fire fighting arrangement in public buildings.

4.IS – 3589 Electrically Welded Steel pipes (Heavy Class)

5. IS - 1239 Mild steel Tubes, Tubular and other wrought steel

6. IS – 780 C. I. Double flanges sluice valve.

7. IS – 778 Gun metal valves.

8. IS – 5290 – 1969 Internal Landing valve

9. IS – 884 – 1969 First aid hose reel.

10. IS – 2189 & 2109 Automatic fire alarm system or BSS 3116.

11. IS – 3844-1966 Code of practice for installation of internal fire hydrant in multi store building.

12. IS – 2217-1963 Recommendation for providing first aid and fire fighting arrangement in public buildings.

13.IS – 3589 Electrically Welded Steel pipes (Heavy Class)

14. IS - 1239 Mild steel Tubes, Tubular and other wrought steel

15. IS – 780 C. I. Double flanges sluice valve.

16. IS – 778 Gun metal valves.

17. IS – 5290 – 1969 Internal Landing valve

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18. IS – 884 – 1969 First aid hose reel.

19. IS – 2189 & 2109 Automatic fire alarm system or BSS 3116.

20. National Building Code

VRF AIRCONDITIONING SYSTEM

1 . GENERAL DESCRIPTION OF THE WORK

The building with which this specification is concerned for "METRO MALL"

The mechanical service installation include for the design ,supply delivery erection. Putting into operation, testing and commissioning all DX Variable refrigerant flow AC equipment necessary for the complete installation including the following services Refrigerant with zero ozone depeletion

Air-conditioning with Cooling function only Variable Refrigerant Flow System

Mentioned capacities for all types of A/c units are the minimum required and the contractor should submit the higher standard to Consultant's approval.

The Contractor shall be responsible for co-ordination of all services.

2. DESIGN CONDITIONS

Air conditioning with VRF system (Variable regrigerant flow)

Cooling : Indoor 24/16 ± 1° C DB/WB Outdoor 45° CDB

Tolerance on temperature control ± 2° C at design conditions nominated

Humidity uncontrolled (except where indicated) and hence resultant humidity shall be a function of set point temperature.

Refrigerant : R-410 a Refrigerant with zero ozone depeletion

Power Supply : (V/PH/ HZ)

380-415/3/50

220-240/1/50

3. Air cooled VRF DX Condensing Units FOR COOLING ONLY APPLICATION

(OUTDOOR UNITS)

Operation philosophy:-

Cooling only .Cooling function to the entire connected Indoor units as per the demand / mode of operation set in the thermostat on all in door unit.

The casing shall be fully weather proofed for outdoor installation pre-coated galvanised steel sheets with weather proof paints such as 5Y8/1orsimilar as per JIS (Japanese Industrail standard). It shall be provided with openings for power and refrigerant connection with removable panels for easy access to all internal components. A access door shall be provided on the control panel.

The condensing units shall be of the air-cooled type, designed for use with refrigerant R-410 A for cooling only of capacity as shown in the drawings and schedule. System shall be suitable for a two pipe system with either branch pipe or header pipe arrangement. The refrigeration process of the outdoor unit to be maintained by pressure and temperature sensors controlling solenoid valves, check valves and bypass valves. The Control shoulld be via a 30 vdc signal generated by the outdoor unit. This signal to be sent to the indoor units via a 2 core non polar screened cable.

The condensing unit shall comprise of propeller fan, fan motor, heat exchanger (condenser coil) accumulator, sub cooling coil , oil separator, control box and heat inter change circuit to allow for better refrigerant distribution and control with Electronic expansion valves.

The refrigeration accessories and safety control should be assembled in a common casing, wired and tested in the factory. The unit should be supplied from the factory with an operating charge of refrigerant and dehydrated compressor oil.

Unit must be capable of operating up to 52 Deg C (125 deg F) ambient temperature with out tripping

The compressors must be of Low Pressure Shell type allowing the refrigerant to enter from side of the compressor to cool the stator to reach the scroll part and then get compressed .Each module must be with full inverter scroll type only capable of controlling 1 HZ increments plus, mounted on external spring isolators, provided with crankcase heater ,oil separator and accumulator. Compressor shall be located in a separate section isolated from the condenser coil and fans.

The condenser fans shall be of the propeller type, arranged for top air discharge. The fan shall be weather proofed, statically and dynamically balanced, direct driven BLDC inverter driven motor by a totally enclosed and permanently lubricated resiliently mounted electric motor. Fans shall have safety guards.

The condenser coils shall be constructed of heavy gauge seamless copper tubes mechanically bonded to aluminum plate fins, weather proof treated against corrossion and saline condition such as herasite, blue guard or factory applied protective coatings. The coils will be capable of being divided into smaller sectiions

to enable the outdoor unit capacity to match the capacity required by the indoor unit. The coils shall be circuited for subcooling and shall have guard protection for the condenser fins. Coils to be leak tested at the factory.

OUTDOOR UNIT SYSTEM CONTROLS

The unit shall be provided with all necessary factory assembled terminal block where in the power supply should pass through a noise filter to DC reactor with safety device to protect from rush current to the inverter board for smooth linear compresor operation along with built in controls such as but not limited to H.P switches, HP&LP sensers ,over current protection thermal switch, magnetic contactors for the compressors and fan motors.

Compressor:

Each outdoor unit module shall be equipped with 100% single inverter driven scroll hermetic compressor up to 20HP.

Non-inverter-driven compressors/ multiple inverter compressors in any single module shall not be allowed.

Inverter: Inverters should be protected by built in factory supplied DC bus current inorder to control the frequency. System must facilitae with factory built in PWM modulation control to increase the out put voltage during high load condition fot optium compressor efficency

ET control (Evaporating Temperature Control).Optium indoor comfort must be accomplised by controlling the evaporating temperature according to the operation load to minimise the compressor input power .

Constant Evaporating temperature method will not be alowed

HIC . Heat Inter change Circuit .

Extra sub-cooling must be provided by a Heat Interchange Circuit (HIC),to allow better refrigerant distribution and control with electronic expansion valves

Fan Controller: Should include over current protector ,inverter board, and inteligent power module for linear operation of fan motor to control the fan speed in line with compressor operation .

Main Board: Should include cooling heating auto changeover relay centralized control transmission board, power supply terminals for main and controls.

Inverter Board: Should have necessary power supply terminals, smoothing capacitor, over current detection resistor and serial transmission point to main board.

Outline of control method:-The out door units should be arranged in the order of capacity from large to small in case of combination units to meets the total load by factory buit in dip swithes

Startup sequence rotation :- Power supply to be on to allow compressor crank case heater to be on for 8 to 12 hrs as set by the manufacturer according to ambient temperature condition or Induction type heater and the system should run in initial start up mode . Sequence rotation should be prfrormed by the system by its own built- in function facilitating equal operation time to all our door units

Control at Start-up: The upper limit of frequency during the first 3 minutes of the operation is 50Hz. When the power is turned on, normal operation will start after the initial start-up mode has been completed (with a restriction on the frequency).Compressor Frequency control: To maintain the target value of evaporation temperature in cooling mode, rate of performance 2 'Hz' second across 16 ~ 97 range or as recommended by the manufacturer.

Oil Return Control: To facilitate the opening and closing electronic expansion valve to prevent rising discharge temperature, when compressor stop and depending upon the frequency and outdoor temperature.

Sub cool Coil control: Must be fully open at defrosting and according to superheat detected from the bypass out let temperature of sub cool coil and discharge temperature.

Control for Liquid level: In the accumulator to heat the refrigerant judging the refrigerant amount depending on our door air temperature and frequency.

Condensing Unit (Heat Exchanger) and Fan Capacity Control: As per the indoor unit load demand the above factory built control should control the outdoor unit fan air flow rate with phase control in order to maintain the sub cooling and evaporator temperature.

MICROCOMPUTER

From the same A/C manufacturer factory built- in, in the outdoor unit control panel weather protected, with self –diagnostic function for easy reading and maintenance. A four – digit LCD display should give all service information, fault history and must constantly monitor all operation of respective out door and connected indoor units, room's thermostats either in cooling or heating mode

4. INDOOR UNITS

GENERAL:

The unit shall be manufactured with Galvanised steel plate partially insulated with closed cell expanded urethane foam.

The unit shall be of exposed decorative type of, ceiling cassette, ceiling concealed (ducted split) ceiling suspended, wall mounted, floor mounted exposed and concealed configuration as shown and specified and detailed below:

Units shall be designed for refrigerant R- 410 A for COOLING only application with self-contained direct expansion types evaporating coil gas distributor in fan coil unit with linear expansion valves. Evaporation coils shall be aluminum fins mechanically bonded copper tubes Factory leak tested . Fan shall be centrifugal direct driven types, statically and dynamically balanced and shall on permanently lubricated bearing. Fan motor shall be low noise with multi-speed (as per recommended by manufaturer) motor with internal thermostat.

Airhandling / FCU unit shall be supplied with self-diagnostic functional thermostats and washable filter or as manufacturer's recommendations.

These units must be connected to a single out door unit. Refrigeration system must be only two

pipes network either cooling or heating one time the entire system connected in their respective

group. Each outdoor shall be able to group with minimum 2 to 50 indoor units of different

capacities and types with in the total capacity of the connected out door unit. The flow of regrigerant through the heat exchanger will be controlled by a linear expansion valve .This valve will be controlled by two pipe thermistors and a return air thermistor,capable of controlling variable capacity of the indoor unit between 15% and 100%.

Each indoor unit to be suitable for fuzzy logic signal 30vdc from the outdoor unit via a 2 core non polar screened cable.

Incase of malfunction / power failure on any indoor unit the remaining indoor units and its corresponding outdoor unit should continue to perform without total system break down

Ceiling Cassette Type

Units should have adjustable air outlet such as 1, 2 or 4 ways as per site requirement with swing louvers and adjustable blades from sides. An airflow control mechanism must be factory built-in to distribute the air evenly over the vane's upper and lower surfaces to prevent the air from hitting the ceilings. . Air discharge should be through auto flap shutter for uniform airflow. This flap should act as a shutter when the unit is turned off.

Air intake must be from center bottom of the unit through fixed decorative blade grill and factory supplied washable air-filter.

Cassette unit should be equipped with drain water lift up mechanism. Evaporator fan should be centrifugal turbo fan or sirocco fan multi-speed low noise motor. Refrigerant pipe and condensate drain connection to be in separate corners for easy installation and maintenance.

Ceiling Mounted duct type units:

These units shall be ceiling suspended with suitable supports to take care of operating weight of the unit, without causing any excessive vibration & noise. The cold air supplied by these units will be supplied to the area to be air conditioned, through duct system specified in the tender.

Each indoor unit must have electronic expansion valve operated by microprocessor thermostat based temperature control to deliver cooling/ heating as per the heat load of the room.

The unit casing shall be Galvanized Steel Plate.

Unit must be insulated with sound absorbing thermal insulation material, fibre glass.

The noise level of unit at the highest operating level shall be selected to meet the noise criteria specified for each area.

The unit must be able to develop external static pressure of 20mm (200Pa) at the specified air quantities – to match the specified supply air ducting, grills and extract grills plus 5Pa.

Unit must have Thermal Fuse for fan motor protection, in case of motor heating.

Each indoor unit shall have factory installed as standard equipment, maintenance free long-life filter and resin net with mould resistant.

The unit will be connected in series to a suitable outdoor unit & it must be possible to operate the unit independently, through corded/ cordless remote specified in the bill of quantities. The entire system shall be controlled by a system controller and shall be integrated through BACNET protocol with an intelligent building management system. The system controller shall be able to control start / stop on time schedule and also provide common fault from the system. The BMS will be provided by others.



The unit shall be supplied with following from the factory

Paper pattern for installation

Drain hose/ Clamp metal/ Insulation for fitting/ Sealing pads/ Clamps/ Screws.

Long life replacement filter

Wall Mounted Units

Shall be of decorative slim dimension suitable indoor wall mounting. The unit base shall be fabricated from galvanized steel sheet and shall be internally insulated to prevent condensation. The external decorative cabinet shall be of plastic material with necessary provision for air intake with washable factory supplied airfilter. Air discharge should be through auto flap shutter for uniform airflow. This flap should act as a shutter when the unit is turned off.

The evaporator fan should be centrifugal line flow type directly driven by multi speed low noise motor. Provision for five ways refrigerant piping and four ways condensate drain should be feasible in order to connect the unit as per the site condition. All screws securing the unit should be accessible from the front of unit for easy installation and maintenance.

AHU Controller

Air handling unit controller must be from the VRF Outdoor unit manufacturer an interface to allow connection to third party manufactured/ field supplied Air handling equipment.

The AHU controller shall include but not limited to LEV expansion device's, discharge, return air temperature and nessary pipe sensors with temperature set point by control 0-10 VDC , auto mode error input, etc.

5 .CONTROL WIRES:

A two non-polarized transmission line should allow for simple and foolproof connection of each indoor and remote controller. The cable should be either factory supplied or as recommended by the local supplier/ dealer. Empty conduit for the same with pull wire shall be fixed/made available by the main contractor. The

sub Contractor shall be responsible for the interconnecting control wiring between the indoor and outdoor units and control wiring between remote controllers, centralised control and relevant components. This work shall be co-ordinated with the Electrical Sub Contractor for the rooting and trunking of the cables.

All control wiring are to be carried out in 2 core 1.5mm PVC shielded cabling with colour coding and tagged with ID number at 3 metre intervals as per schematics for ease of identification and maintenance.

Control wiring shall not be run next to power wiring. A minimum space of 100mm between both control and power cables shall apply.

SHOP DRAWING/COORDINATION WITH OTHER SERVICES.

Work shop drawing shall be prepared by the AC contractor in 1:100 (correct as per local codes & standards) scale in coordination with all other services and submitted for approval prior carrying out any work at site unless and until the consultant/engineer gives site clearance for the same.

Exact location of the following:

Pipes sleeves and duct openings.

Condensate drain point final connection to all AC units to be done AC contractor.

Height of all room thermostat and central remote controller.

Height and size of openings for ducts, grills, fresh air louvers, piping and electrical work crossing the wall floor.

COMMISSIONING

The contractor should test and commission the air conditioning equipment as per the technical standard in line with the local dealer /manufacturer's engineer's supervision. As-built drawings, installation operation and maintenance manuals, including catalogues shall be submitted before handing over.

SECTION – 1 – AIR HANDLING UNITS (AHUs)

1. GENERAL

The scope of this section comprises the supply, erection, testing and commissioning of double skin construction, air handling units, conforming to these specifications and in accordance with requirements of drawings and of the Schedule of Quantities. Bidder shall provide excise duty gate pass duly authorized for AHU's and Coils at the time of delivery at site.

2. AIR HANDLING UNITS

The air handling units shall be double skin construction, draw-thru type comprising of various sections such as mixing box (wherever the return air and fresh air are ducted), pre-filter section, coil section and fan section as shown on drawings.

2.1 CAPACITY

The air handling capacities, maximum motor horsepower and static pressure shall be as fan section as shown on drawings.

2.2 CASING

Double skinned panels to be fabricated with anodized extruded aluminum section framework bolted together with sandwich panel having 0.6 mm thick GI pre- plasticized outer skin and 0.6 mm thick plain GI inner skin. 25/46 mm (as per BOQ) thick injected PU foam insulation having density of 38 kg/ m3 material to be sandwiched between two skins.

The panels shall be sealed to the framework by heavy duty 'O' ring gaskets held captive in the framed extrusion. All panels shall be detachable or hinged. Hinges shall be made of die cast aluminum / engg. nylon plastic with stainless steel pivots, handles shall be made of hard nylon and be operational from both inside

and outside of the unit. Units supplied with various sections shall be suitable for onsite assembly with continuous foam gasket. All fixing and gaskets shall be concealed.

Units shall have hinged quick opening access doors in the fan and filter section. Access doors shall also be double skin type.

Mixing box shall be considered wherever specified in the BOQ. The mixing box shall have fresh air and return air Aluminium dampers. Units with mixing box, TFA units or units exposed to direct atmosphere shall have thermal break profile.

Condensate drain pan shall be fabricated from 20gauge stainless steel sheet. It shall be isolated from bottom floor panel through 13mm thick nitrile rubber insulation.

The AHU shall have opposed blade Aluminium damper at the outlet of AHU.

2.3 MOTOR AND DRIVE

Fan motors shall be highly efficient and shall be 415±10% volts, 50 cycles, three phase, totally enclosed fan-cooled class F, with IP-55 protection. Motors shall be especially designed for quiet operation and motor speed shall not exceed 1440 rpm. Drive to fan shall be provided through 'V' belt-drive arrangement. Belts shall be of the oil-resistant type.

2.4 FAN

Fans shall be DIDW centrifugal, forward/backward inclined blades (as per BOQ). Fan casing shall be made of galvanized steel sheet. Fan wheels shall be made of galvanized steel. Fan shaft shall be grounded C40 carbon steel and supported in self-aligning Plummer block operating at less than 75% of first critical speed, grease lubricated bearings. Fan wheels and pulleys shall be individually tested and precision balanced dynamically. The fan outlet velocity shall be between 1600 fpm to 2000 fpm as approved by the consultant depending upon the criticality of area to be served.

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Ceiling suspended units shall be selected for lowest possible height keeping in mind the above fan outlet velocity restriction. Floor mounted units shall be preferably with Forward / Backward Curved / inclined fans.

Motors shall be mounted inside the AHU casing on slide rails for easy belt tensioning, and be totally enclosed, fan cooled, to be class `F' insulation. Motors shall drive heavy duty V-belt, constant pitch, drive selected at 110% of motor horsepower.

Both fan and motors assemblies shall be mounted on a deep section aluminum alloy base frame.

Isolation shall be provided from the unit casing by spring or rubber type anti-vibration mounts and flame retardant, waterproof neoprene impregnated flexible connection on the fan discharge.

2.5 COOLING/ HEATING COILS (As per BOQ)

Chilled water coils shall have 12.5 to 15 mm outer tube diameters and 0.41 mm tube wall thickness with sine wave aluminum fins min. 0.15mm thick firmly bonded to copper tubes assembled in zinc coated steel frame. Face and surface areas shall be such as to ensure rated capacity from each unit and such that the air velocity across the cooling/ heating coil shall not exceed 152 meters per minute. The coil shall be pitched in the unit casing for proper drainage. Each coil shall be factory-tested at 21 kg per sq.m air pressure under water. Tube shall be hydraulically/ mechanically expanded for minimum thermal contact resistance with fins. Fin spacing shall be 4 - 5 fins per cm. The air velocity across the cooling/ heating coil shall not exceed 152mtr/minute.

Coils shall be sealed in polythene bags and packed in crates properly. Coils with damaged fins shall not be accepted.

2.6 FILTERS

Each unit shall be provided with a factory assembled filter section containing washable synthetic type air filters having anodized aluminum frame. The media shall be supported with HDP mesh on one side and aluminum

mesh on other side. Filter banks shall be easily accessible and designed for easy withdrawal and renewal of filter cells. Filter framework shall be fully sealed and constructed from aluminum alloy. Filter banks face velocities shall not exceed 152 mtr/ minute. MERV 13 filters shall be considered wherever mentioned in BOQ.

2.7 CONTROLS (Priced Separately)

Each AHU shall be provided with pressure independent cum balancing cum two way control valve for cooling/ heating circuit & three way valves for monsoon reheat hot water circuit with modulating motor (both items are separately itemized in the schedule of quantity) for maintaining inside dry bulb temperature and RH within design limits. Modulating motor shall be compatible with Building Management System.

2.8 ACCESSORIES

Each air handling unit shall be provided with manual air vent at high point in the cooling coil/heating coil and drain plug in the bottom of the coil.

In addition, the following accessories shall be required at air handling units, their detailed specifications are given in individual sections, and quantities separately identified in Schedule of Quantities.

a) Insulated butterfly valves, `Y' strainer, union and condensate drain piping upto sump or floor drain in air handling unit room, as described in section "Piping" (Priced separately).

b) Thermometers in the thermometer wells and pressure gauge (with cocks) within gauge ports in chilled water/hot water supply and return lines.

2.9 ISOLATORS

Vibration isolators shall be provided with all air handling units. Vibration isolators shall be ribbed rubber pads.

2.10 FRESH AIR ARRANGEMENT (Priced separately)

Fresh air is supplied trough the TFA.

2.11 PAINTING

Shop coats of paint that have become marred during shipment or erection shall be cleaned off with mineral spirits, wire brushed and spot primed over the affected areas, then coated with paint to match the finish over the adjoining shop painted surface.

2.12 PERFORMANCE DATA

Air handling unit shall be selected for the lowest operating noise level of the equipment. Fan performance rating and power consumption data, with operating points clearly indicated shall be submitted and verified at the time of testing and commissioning of the installation.

3. TESTING

The air-handling unit shall be tested to measure air quantity and coil performance by measuring temperature difference, water pressure drop across coil and then calculating the capacity by using the above measurements.

Before painting the air-handling units, these shall be inspected by the authorized representative/s of department.

Specification for Lifts

Scope:



Specification No (LFT)

Supplying erecting and commissioning passenger lift, hospital lifts and goods lift with technical requirements of lift installation, its components, safety devices various type of controls and methods of operation. The selection of a particular type of control and method of operation will be guided by the requirements in individual case such as nature of building, usage, occupancy, traffic pattern, etc. and has to be decided in individual case considering quality and quantity analysis of service.

Recommended Standards:

The following list is for Indian Standards which are acceptable as good practice and accepted standards:

IS 14665 part I : Guidelines for outline dimensions of passenger, goods, service and hospital lifts.
IS 14665 part II : Code of practice for installation, operation and maintenance of lifts.
IS 14665 part III : Safety rules
IS 14665 part IV : Components

Development Control

Rules : Of concerned Corporation or Local Authority

National Building Code 2005
Bombay Lift Act 1939
Bombay Lift Rules 1958
I. E. Rules 1956 : Reprint as per 2005

Material:

Electric Supply:

Three phase, 50 c/s, 415 V electric supply shall be made available by owner. The entire lift equipments should be suitable for operation at +10% to - 20% of the rated supply voltage.

Gearless machine:

The gearless machine shall consist of a motor, traction sheave and break-drum or brake disc completely aligned on a single shaft. Gearless machine shall be AC. gearless with VVVF drive.

Geared machine:

The lift machine shall be of worm gear reduction type with motor, brake, worm gearing and driving sheave and suitable for type of control specified.

Electric motor:

Energy efficient Electric motor of suitable HP with class F insulation and S-4 duty cycle

Car:

As per IS 14665 part IV with MS Girders, bracings of adequate size and strength at the bottom and top with angle iron frame and side panels of CRCA/MS of 16 gauge duly powder coated paint or SS sheet of 18 gauge with mirror or hairline finish with safety factor more than 5.

Signals:

FPI in car and CPI at all landings are to be provided with up / down direction indicators with call registration facility.

Variable Voltage Variable Frequency:

Incoming mains AC power is first rectified to DC and then inverted to provide controlled AC current to the elevator drive. Precision monitoring is required for motor speed, car direction, position and load to enable the pulse width of the AC power supplied to the motor and to be adjusted to ensure that elevator speed is maintained very accurately to an ideal profile. Energy saving through reduced power consumption should be achieved.

Controls:

Microprocessor based Control panel duly wired with proper size and strength of copper wire.

Control panel box:

Control panel box of MS sheet of 16 gauge with duly power coated of MS sheet of 16 gauge.

Driving / traction pulley:

Sheaves and pulleys shall be of hard alloy, cast iron, SG iron or steel and free from cracks, sand holes and others defects. They shall have machined rope grooves. The traction sheave shall be grooved to produce proper traction and shall be of sufficient dimension to provide for wear in the groove. The deflector sheave shall be grooved so as to provide a smooth bed for the rope.

Over speed governor:

The car safety shall be operated by speed governor located overhead and driven by governor rope suitably connected to the car and mounted on its own pulleys. Governor shall be provided for lifts with a travel of more than 5.5 meters. The governor rope shall be not less than 6mm in dia and shall be made of steel or phosphor bronze. These shall be in accordance with IS 14665 (part 4lsec-4): 2001.

Electromagnetic breaks:

The lift drive machinery shall be provided with an electro-magnetic brake or motor operated brake normally applied by means of springs in compression when the operating device is in off position. The brake shall be suitably curved over the brake drum or brake disc and provided with fire proof friction lining. The operation of brake shall be smooth, gradual and noiseless. The brake shall be designed to be of sufficient size and strength to stop and hold the car at rest with rated load. The brake should be capable of operation automatically by the various safety devices.

Suspension wire rope:

Round strand steel wires ropes made from steel wire ropes having a tensile strength not less than 12.5 tones / cm2 and of good flexibility shall be used for lift. Lubrications between the strands shall be achieved by providing impregnated hemp core.

Guide rails:

The guide rails shall be continuous throughout the entire travel and shall withstand without any deformation by the action of safety gear with a fully loaded car. Generally the guide rails shall be supported by brackets secured to the hoist way frame at each floor. The rails shall be securely fastened to the brackets or other supports by approved heavy rail clamps. Guide rails shall extend from pit floor to the underside of concrete slabs or grafting at top of the lift well. They shall be erected in plumb and parallel with a maximum deviation of 3mm.

Buffers:

Buffers shall be suitable for installation in the space available. Buffer anchorage at pit floors shall be installed avoiding puncturing of water proofing. Oil buffers of the car and counter weight shall be of the spring return type or of gravity type. The contractor must indicate the name of buffer manufacturers, buffer stroke & certified maximum loads.

Method of Construction:

Bar chart shall be prepared as per tender condition and requirement. Lift hoist way measurement shall be done before finalizing the material quantity.

Drawing should be prepared according to tender specification considering hoist way size and permission from Lift Inspector for erection of lift should be taken prior to commencement of erection.

White wash in lift well shall be carried out by the client.

- Site in full readiness shall be handed over to the agency.
- Minor civil work pertaining to front wall architraves internal / external plastering etc. shall be done by the lift agency.
- Prepare and install scaffolding and template by adjustment required.

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• List of components / finished items those are not manufactured by lift manufacturer shall be informed by the agency.

• Brackets are to be erected and fixed in to plum line.

• Put the fasteners (16 mm dia x 100 mm) if the brackets are to be fixed on RCC wall / beam / lintel or fix rig bolts if brick work found in RCC.

• After fixing brackets and guides with adjustment fix the car and counterweight

• Fix the landing door frame / door bottom with sill and suitable brackets to with stand the load of passenger / freight as per specification

• Fix metal trunking / PVC pipe as per IS requirement

• Complete civil work such as fixing up hoist way, push button, buffers, machine room I beams for resting machine, foundation for control panel, minor civil work, making holes in bottom slab of machine room to pass traction rope, speed governor rope / wiring and complete finishing according to sizes and specification.

• Electrical wiring in lift shaft and supply cable shall be carried out from electrical agency as per requirement of lift rules.

• Fix machine with complete gear box unit, suitable rubber pad / anti vibrating pad, diverter if required with alignment as per norms.

• Fix the control panel at accessible height from floor level to inspect, connect, and operate easily.

• Put wires in accordance with the control panel connection diagram according to colour code in metal trunking with insulating paper on all bends, corners. Metal trunking shall be duly earthed from top to bottom according to IS specifications.

• Mid way junction boxes are to be fixed according to size but it should be marked by every wire with nos. (Ferrules) Traveling cables should be fixed with suitable hanger to take load of travelling cable and put extra wire of 20 % approximately

• Fix the car and counterweight frame according to sizes, adjustment of safety block wedges shoes as per requirement.

• **Toe Guard Aprons:**

• The toe guard apron of gauge not less than 1.6mm sheet steel may be provided extending at least 15mm beyond entrance jams at each side. The guards shall have a straight vertical face extending below the level of the finished car floor and not less than the depth of the levelling zone plus 7.5mm. It shall be seamed to car platform construction and be reinforced and braced.

• **Car Apron, Landing Thresholds and Sills:**

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An apron shall be fitted to the car platform such that no dangerous gap exist at any time when the landing door is opened, Thresholds and sill plates shall be provided at the landings also. The distance between landing sill and the sill on car platform shall not be more than 30mm.

• **Emergency Power Supply for lift car, fan and intercom system:**
This shall include suitable secondary battery with trickle/Boost charge arrangement and inverter power pack with necessary contactors for supply to light fixtures in the lift car, fresh air fan in lift car. The same battery shall also feed the alarm bell and communication equipment.

• **Inter-communication system:**
Intercom system shall be provided in car to have communication in case of an emergency and shall be connected to re-chargeable battery supply.

• **Ratings and Instructions:**
Inside the lift car, the lift supplier shall also provide a stainless steel metallic plate indicating the rated load and detailed instructions for the passengers. This shall be mounted at a suitable place.

• **General:**
a) Put main traction ropes from car to counterweight with rope tension adjustment.
b) Put counterweight i.e. of CI blocks in counter weight frame for suitable equilibrium.
c) Put car platform and car with adjustment.
d) Fix car door and panels / car push button/ fall ceiling light, fan.
e) Fix landing panels and put in lock in circuit.
f) Fix hoist way accessories like drum reels terminators, final limits, levelling
g) Removing the scaffolding.
h) Connect three phase supply from main switch along with earthing to controllers as per instruction given.
i) Wiring from controller to motor along with earth wire is to be completed.
j) Check motor / gear oil.
k) Start lift in maintenance mode.
l) Check adjustment of hoist way switch/ safety doors and check all parameters of shaft.
m) Put controller on normal mode.
n) Test run to be taken and & service inspection of lift with all safeties shall be done in presence of site in charge.
o) Pre commissioning work such as cleaning of shaft, pit etc shall be done.
p) After completion of work, NOC shall be obtained from lift inspector
q) by the agency before putting LIFT in to operational use.

Testing of Lift Installation:

Tests at site:

(a) Levelling Test:

Accuracy of the floor levelling shall be tested with the lift empty, fully loaded. The lift shall be run to each floor while travelling both in upward and downward directions and the actual distance of car floor above, below landing floor shall be measured. In each case there shall not be any appreciable difference in these measurements for levelling at the floors when the car is empty and when it is fully loaded. The tolerances for levelling shall be as specified in para 8 of chapter IV, section I.

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(b) Safety Gear Tests:
Instantaneous safety gear controlled by a governor should be tested with contract load and a contract speed, the governor being operated by hand. Two tests should be made, however, with wedge clamp or flexible clamp safeties, one with contract load in the car and the other with 68 kg (equivalent to one person) in the car. The stopping distance obtained should be compared with the specified figures and the guides, car platform, and safety gear should be carefully examined afterwards for signs of permanent distortion. Counterweight safety gear should be tripped by the counter weight governor and the stopping distance noted. In this case, however the governor tripping speed may exceed that of the car safety governor but by not more than 10 percent.

During the safety gear tests, car speed (from the governor or the main sheave) should be determined at the instant or tripping speed with that stated in IS. The governor jaws and rope should be examined for any undue wear.

(c) Contract speed:

This should be measured with contract load in the car, with half load, with no load, and should not vary from the contract speed by more than 10 percent. The convenient method is by counting the number of revolutions, made by the sheave or drum in a known time, Chalk mark on the sheave or drum and a stop switch will facilitate timing but care must be exercised to ensure that no acceleration or retardation periods are included. If the roping is 2 to 1 the sheave speed is twice the car speed. Alternatively, the speed can be measured by a tachometer applied directly to shaft immediately below the sheave.

(d) Lift balance:

After the above test, some of the weight shall be removed until the remaining weights represent the figures specified. With this condition at half way travel the effort required to move the lift car in either direction with the help of winding wheel shall be as nearly as can be judged by the same.

(e) Car and landing doors interlock:

The lift shall not move with any door open. The car door relay contact and the retiring release cam must be tested. The workings of the door operation and the safety edges and light equipment if any provided shall also be examined.

(f) Controllers:

The operation of the contactors and interlocks shall be examined and it shall be ascertained whether all the requirements laid down in the specifications have been met.

(g) Normal terminal stopping switches:

These shall be tested by letting the car run to each terminal landing in turn, first with no load and then with contract load and by taking measurements, top and bottom over travels can be ascertained.

(h) Final terminal stopping switches:

The normal terminal stopping switches shall be disconnected for this test. It shall be ensured that these switches operate before the buffers are engaged.

(i) Insulation Resistance:

This shall be measured (after removing the electronic PCB's and their connection) between power and control lines and earth and shall not be less than 5 mega-ohms when measured with D.C. voltage of 500 volts. The test shall be carried out with contactors so connected together as to ensure that all parts of every circuit are simultaneously tested.

(j) Earthing:

Earthing continuity of all conduits, switches, casing and similar metal work shall be tested.

(k) Ropes:

The size, number construction and fastenings of the ropes should be carefully examined and recorded.

(I) Buffers:

The car should be run on to its buffers at contract speed and with contract load in the car to test whether there is any permanent distortion of the car or buffers. The counter weight buffers should be tested similarly. Test report shall be intimated after testing at works.

Service Temperature Test:

A continuous run of one hour should be made with number of starts and stops to reproduce as nearly as practical the anticipate duty in service. (The standard duty cycle is for 180 starts per hour). It is very difficult in practice to carry out this test with alternate starts at full load and no load and it is necessary therefore to simulate these cycles. A suitable test for all motors except squirrel cage motors is to run the car up from the bottom landing with contract load and stop at each floor. From the top floor a non stop run is made to the lowest floor and the upward journey with stop is then repeated. The time intervals between stops and starts at the floors should be uniform and such as to give about 150 starts in one hour.

At the end of this run the temperatures of the armatures and fields of the motor and generator are recorded. The temperature rise should, not exceed 55 deg C or 75 deg C for class A or B insulation respectively.

Method of Construction: Executed quantity will be counted on number basis. (i.e. each)

Approved Make : Otis, Johnson, Kone, Schindler

9.0 ELECTRICAL WORK

1 The Bill of Quantities must be read with the scope of work, Conditions of Contract, Drawings and the Specifications and the Contractor shall be deemed to have examined the Scope of Work, Drawings, Specifications, Conditions of Contract and to have visited the Site and acquainted himself with the Works to be done and the way in which they are to be carried out and all factors affecting the execution of the Works and the Costs thereof including temporary works if required to complete the works.

2 All work shall be measured net as it is finished and/or fixed in the Works and no allowance shall be made for wastage notwithstanding any general or local custom. Any items of work not covered in the Preamble shall be measured as per specifications for works methods laid down in relevant Indian Standards or as decided by the Site Engineer.

3 The quantities set down against the items in this Bill of Quantities are an approximate estimate of the quantity of each kind of work included in the Contract and are given for the convenience of forming a common basis for tendering. They are not to be taken as a guarantee that the quantities scheduled will be carried out or required or that they will not be exceeded. The NMC reserves the right to delete any item indicated in the bill of quantities at any time.

4 The quantities shall therefore not be considered as representing the final measurements, it being the intention of the Contract (except where otherwise specifically stated) that the actual quantities of work ordered and carried out shall be jointly measured on completion by the NMC Engineer or his authorised representative and the Contractor and valued and paid for at such prices and rates entered by the Contractor in the Bill of Quantities.

5 The rates and prices set down against the items are to be the full inclusive value of the finished work shown on the Drawing and/or described in the Specifications or which can reasonably be inferred there from and to cover the cost of every description of Temporary Works executed or used in connection therewith (except those items in respect of which specific provision has been separately made in this Bill of Quantities) and all the Contractor's obligations under the Contract including testing, giving samples and all matters and things necessary for the

proper execution, completion and maintenance of the Works. No claim for additional payment shall be allowed for any error or misunderstanding by the Contractor of the work involved.

6 The Specifications and the various Sections in the Bill of Quantities are intended to cover the supply of all the materials and the execution of all works necessary to complete the Works. Should there be any details of Materials or Construction which have not been referred to in the scope of work, specifications, Bill of Quantities or the Tender Drawings, but the necessity for which may reasonably be implied or inferred there from, or which are usual, or essential to thecompletion of all works in all trades, the same shall be deemed to be included in the rates and prices within in the Bill of Quantities. The rates and prices shall cover the items as described in the scope of work, Bill of Quantities, tender drawings and other terms and conditions of the contract.

7 The Contractor's unit rates and prices in the BOQ shall include all equipment, apparatus, material, indicated in the BOQ, Scope of Work, Drawings, Specifications in connection with the item in question and also associated labour as well as all additional equipment, apparatus, material, consumables usually necessary to complete the system even though not specifically shown, described or otherwise referred to and also associated labour. It also includes delivering the material, item to the specified storage area at Site. Installation of the same in the specified location as per Drawing & as specified, testing and commissioning as per Specification and direction of the Authority's Engineer / PMC' at Site.

The unit price shall be deemed to include everything necessary to complete the work covered by this item in accordance with the scope of work, Specifications and Drawings.

The sum total of all the individual item prices shall represent the total price of the

Installation ready to be handed over.

Use of any tools, equipment, machinery, lifting tackle, ladders consumables etc.

required by the Contractor to carry out his work.

All the necessary measures to prevent the transmission of vibration. Storage and

insurance of all plant and equipment, apparatus and materials.

INTERNAL WIRING

RECOMMENDED STANDARDS:

The following list is showing Indian Standards, which are acceptable as good practice, and accepted standards.

IS 732: 1989 Code of Practice for Electrical Wiring Installations.

IS 4648: 1968 Guide for Electrical Layout in residential buildings

IS 9537 (Part 1): 1980 Conduits for Electrical Installations: General requirements

IS 9537 (Part 2): 1981 Rigid Steel Conduits

IS 9537 (Part 3): 1983 Rigid Plain Conduits of insulating material

IS 3419: 1989 Specifications for fittings for rigid non metallic conduits

IS 694: PVC insulated cables for working voltages up to and including 1100V

IS 1554 (Part 1): 1988 PVC insulated (heavy-duty) electric cables for working voltages up to and including 1100V

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IS 3961 (Part 5): 1968 Recommended current ratings for cables: PVC insulated

light duty cables.

IS 4288: 1988 PVC insulated (heavy duty) electric cables with solid aluminium Conductors for voltages up to and including 1100V

IS 14772: 2000 Specifications for Accessories for household and similar fixed Electrical Installations

IS 3043: 1987 Code of practice for Earthing

SP 30: 1984 National Electrical Code

SP 7 (Group 4): 2005 National Building Code

IS 14927(Part 1): 2001 Cable Trunking and Ducting systems for electrical

installations.

1. SYSTEM OF WIRING :

The system of wiring shall consist of multi core P.V.C insulated copper standard conductor wires in non-metallic conduits as called for. All conduits shall be concealed/ surface mounted as called for in the drawings.

2. GENERAL:

Prior to laying of conduits shall submit the shop drawings for conduit layout indicating the route of conduit, number and size of conduits, location of junction/inspection/pull boxes, size and location of switch boxes, point outlet boxes and other details. The Authority's Engineer / PMC shall approve

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the shop drawings / Architect and then only conduit layout can be started. Any modified and suggestions shall be approved by the Architect before the laying of conduits.

3. MATERIALS.

G.I./M.S CONDUIT: MS ERW Conduits shall be solid drawn of lap-welded conduits, inside and outside with minimum wall thickness of 1.6 mm for conduits. The conduits shall be delivered to the site of construction in original bundles and each length of conduits shall bear the label of manufacturer. The number of insulated copper of various sizes that may be drawn into the conduits of various sizes are given below :

Maximum permissible number of 650/1100 volt grade single core / multi core PVC insulated copper / wires that may be drawn into rigid-metallic conduits.

Size of Wires	Size of Conduits (MM)				
Nominal cross sectional area of wires in sq mm.	19	25	30	40	50
	(maximum number of wires).				
1.5	6	10	16	-	-
2.5	5	8	13	-	-
4	3	6	10	14	-
6	2	5	8	11	-
10	-	4	6	9	-
16	-	3	5	7	13
25	-	-	3	4	7
5	-	-	2	3	6

MS CONDUIT CONNECTIONS

Conduit connections for MS conduits shall be threaded type / screw type . The threads and sockets shall be free from grease and oil. Connections between screwed smooth bore bush , fixed inside the box by check nuts inside and outside box and connected through a coupler to the conduit or as directed by Architect.. the joints in conduits shall be free of brush to avoid damage to insulation of conductors while pulling them through the conduits.

4. **BENDS IN CONDUIT:**

Where necessary, bends of diversions may be achieved by means of bens and/ or circular inspection boxes with adequate and suitable inlet and outlet joints. In case of recessed system each junction box shall be provided with a cover properly secured and flush with the finished wall surface, so that the conductors inside the conduits are easily accessible. The bend should be provided with inspection window properly screwed to.

5. **FIXING CONDUITS:**

Conduits and junction boxes shall be kept in position while the walls, slabs and floors are under constructions and proper hold fasts shall be provided. Conduits shall be so arranged as to facilitate easy drawing of wires through them. Adequate junction boxes of approved shape and size shall be provided. Where conduits cross expansion joints in the building, adequate expansion fittings or other approved devices shall be used to take care of any relative movement. All conduits shall be installed so as to avoid team and hot water pipes. Conduits shall not come in contact with and wooden member unless otherwise stated. Conduits stubs in floor slabs be kept as short as possible above the finished floor level in order to avoid any damage to them. After the conduits, junction boxes outlets boxes and switch boxes are installed in position, their outlets shall be properly plugged or covered so that water, mortar, insects or any other foreign matter do not enter into the conduit system. Exposed conduits shall be fixed by means

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of spacer bar saddles at intervals not more than 1000mm in normal run and 500 mm in normal run and 500 mm from both sides of fitting or accessories. The saddles shall be of 3 mm x 19 mm galvanized mild steel flat, properly treated primer and painted securely fixed, to supports by means of nuts and bolts/ rawl bolts and machined screws as required. Conduits shall be laid in a neat and organized manner directed and approved by Architect. Conduit runs shall be planned so as not to conflict with any other service pipelines/Ducts.

Where exposed conduits are suspended from the structured they shall be clamped firmly and rigidly to hangers of design to be approved by the Architect. Where hangers are to be anchored to re-enforced concrete devices for their fixing shall be left in position at the time of concreting. Making holes or openings in the concrete will generally not be allowed. In case it is unavoidable prior permission of the Architect shall be obtained.

Conduits in cases shall be avoided, where unavoidable conduits shall be fixed by means of staples more than 600 mm apart and the chase filled with cement mortar 1:4

PVC CONDUIT CONNECTIONS

The Conduit connections for PVC conduits shall be push fit type and shall be applied with fixing solution in order to avoid loosening of joints between the conduits and conduits and junction boxes.

BENDS IN CONDUIT :

Where necessary, bends of diversions may be achieved by means of bends and/ or circular inspection boxes with adequate and suitable inlet and outlet joints. In case of recessed system each junction box shall be provided with a cover properly secured and flush with the finished wall surface, so that the conductors inside the conduits are easily accessible. The bend should be provided with inspection window properly screwed in to.

6. FIXING CONDUITS :

Conduits and junction boxes shall be kept in position while the walls, slabs and floors are under constructions and proper tightening should be provided. Conduits shall be so arranged as to facilitate easy drawing of wires through them. Adequate (aftet every ten ft. linear length) junction boxes of approved shape and size shall be provided. Where conduits cross expansion joints in the building, adequate expansion fittings or other approved devices shall be used to take care of any relative movement. All conduits shall be installed so as to avoid steam and hot water pipes. Conduits shall not come in contact with and wooden member unless otherwise stated. Conduits stubs in floor slabs be kept as short as possible above the finished floor level in order to avoid any damage to them. After the conduits, junction boxes outlets boxes and switch boxes are installed in position, their outlets shall be properly plugged or covered so that water, mortar, insects or any other foreign matter do not enter into the conduit system. Exposed conduits shall be fixed by means of spacer bar saddles at intervals not more than 1000 mm in normal run and 500 mm in normal run and 500 mm from both sides of fitting or accessories. The saddles shall be of 3 mm x 19 mm galvanized mild steel flat, properly treated primer and painted securely fixed, to supports by means of nuts and bolts/ rawl bolts and machined screws as required. Conduits shall be laid with proper spacing in between so that concrete can be evenly spread in the slab as directed and approved by Architect/Consultant. Conduit runs shall be planned so as not to conflict with any other service pipelines/Ducts.

Where exposed conduits are suspended from the structured they shall be clamped firmly and rigidly to hangers of design to be approved by the Architect/ Consultant. Where hangers are to be anchored to re-inforced concrete devices for their fixing shall be left in position at the time of concreting. Making holes or openings in the concrete will generally not be allowed. In case it is unavoidable prior permission of the Architect/ Consultant shall be obtained.

PROTECTION:

To minimize condensation or sweating inside the conduit pipes, all outlets of conduit system shall be adequately ventilated as directed and approved by the Architect. All screwed and socketed use of proper jointing materials i.e. "Tropolin" for PVC conduits and white lead for metal conduits in case required.

SWITCH-OUTLET BOXES AND JUNCTION BOXES:

All outlets for switches, sockets and other receptacles shall be fabricated from steel or equipped with rust proof outlets boxes of 2 mm. thick mild steel sheets as called for, having smooth external and internal surface to true finish. Junction boxes and outlet boxes in contact with earth or installed in areas exposed to the weather shall be of 2 mm. thick mild steel.Where called for outlet boxes for receiving switches, telephone outlets power plugs etc. shall be fabricated to approved shape and size for different utilities. The cover plates shall be of best white urea powder pressed to shape and size as approved in the outlet boxes to fix the grid plates of switches and cover plates as required. Separate earth terminal shall be provided inside the box for earthing purpose.

Where called for outlet boxes for receiving switches and fan regulators in one box, shall be fabricated to approve shape and size to accommodate fan regulators and switches to be fixed on grid plates. These boxes shall be covered with 5 mm. thick Perspex sheet cover. All junction boxes and pull boxes shall be provided with 3 mm. thick Perspex sheet cover upto 100 mm. x 100 mm. size box and 5 mm. thick Perspex sheet cover for boxes beyond 100 mm. x 100 mm. size. The box covers shall be secured to the box with adequate member of round head brass screw of approved make. Screwed earth terminals shall be provided inside the box for earthing purpose. All outlet boxes shall be provided with adequate knock-out holes for conduit entry. Outlets exposed to the weather shall be fully weather tight, complete with rubber gasketed covers. The outlet boxes shall be painted with tow coats of bitumastic paint before they are fixed

in position. Outlet boxes fixed in concrete shall be of a minimum depth of 65 mm. and the wall thickness of the boxes and spout shall not be less than 2 mm.

INSPECTION BOXES:

Rust proof inspection boxes of 2 mm. thick mild steel sheet and of required size, having smooth external finish shall be provided to permit periodical inspection and to facilitate removal and replacement of wires when required. Inspection boxes shall be mounted flush with ceiling/ wall finished surface and shall be provided with screwed covers of 3/5 mm. thick prespex sheet cover secured to the box. Adequate holes shall be provided for ventilation in the inspection box covers.

TELEPHONE SYSTEM:

Conduits, junction boxes, draw boxes, outlet boxes and covers to boxes for telephone system shall be as described under relevant clauses elsewhere in these specifications. Conduits for telephone system shall be at least 150 mm. away from the electrical conduits. The conduits for telephone wiring shall be of specified size and shall be terminated at outlets as indicated on the drawings. Telephone system conduits shall have 2 mm. dia galvanized steed pull wires installed ,if required.

7. CONDUCTORS:

All PVC insulated copper conductor wires shall confirm in all respected to the relevant Indian Standards.

8. BUNCHING OF WIRES:

Wires carrying current shall be so bunch in the conduit that the outgoing and return wires are drawn into the same conduit. Wires originating from different phases shall not be run in the same conduit.

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9. DRAWING OF CONDUCTORS:

The drawing and jointing of aluminum conductor wires shall be executed with due regard to the following precautions, while drawing insulated wires into the conduits, cares shall be taken to avoid scratches and kinks, which causes breakages of conductors. There shall be no sharp bends.

Only certified wireman and cable jointers shall be employed to do jointing work. All wires shall bear the manufacturer's label and shall be brought to site in new and original package.

For all internal wiring, PVC insulated wires of 650/1100 volts grade shall be used. The sub-circuit wiring for points shall be carried out in looping in system and no joint shall be allowed in the length of the conductors. No wire shall be drawn into any conduit, until all work of any nature that may cause injury to wire is completed. Care should be taken in pulling the wires so that no damage occurs to the insulation of the wires so that no damage occurs to the insulation of the wires. Before the wires are drawn into the conduits, the conduits shall be thoroughly cleaned of moisture, dust dirt of any other abstraction by forcing compressed air through the conduits. The minimum size of PVC insulated aluminum conductor wires for all sub-circuit wiring for lights, exhaust fans, and ceiling fan points shall be 2.5 esq.

In case of power, circuit not more than two 15 amps. Power outlets shall be grouped in one circuit, wiring for first power outlet shall be carried out with 4 sq. mm. PVC insulated copper conductor wires, wiring for the second power outlet shall be carried with 2.5 esq. PVC insulated copper conductor wires. All power outlets shall be connects with 2 mm dial. Brae copper or equivalent wire to the earth terminal of outlet. Separate circuit shall run with 4 sq. mm. PVC insulated copper conductor wires for each water heaters, kitchen equipment, window Air conditioners and similar location as shown on drawings. The minimum size of wire from final distribution board to first tapping point in the circuit shall be 2.5 sq. mm PVC insulated copper conductor wires. Maximum lighting points to be connected in a circuit shall be ten or 600 watts.

10. JOINTS:

All joints shall be made at main switches, distribution boards, socket outlets, lighting outlets and switch boxes only. No joints shall be made inside conduits and junction boxes. Conductors shall be continuous for outlets to outlet. Joints where unavoidable, due to any specified reasons, prior permission, in wiring shall be obtained form the Architect before the use of such connections.

11. MAIN AND SUB-MAINS:

Mains and sub-mains wires where called for shall be for rated capacity and approved make. Every main and submain shall be drawn into an independent adequate size conduit. Adequate size draw boxes shall be provided at convenient locations to facilitate easy drawings of the mains and sub-mains. An independent earth wire of proper rating shall be provided for every single phase sub-main. For every 3 phase sub-main, 2nos. earth wires of proper rating shall be provided. The earthwires shall run along the entire length of the mains and sub-mains. The earth wires shall be fixed to conduits by means of suitable copper clips at not more than 1000 mm, distance. Where mains and sub-mains cables are connected to switchgears, sufficient extra lengths of sub-mains and main cable be provided to facilitate easy connections and maintenance.

12. LOAD BALANCING:

Balancing of circuit in three phase installation shall be planned before the commencement of wiring and shall be strictly adhered to.

13. COLOUR CODE OF CONDUCTORS:

Colour code shall be maintained for the entire wiring installations : red, yellow, blue for three phase, black for neutral and green for earth.

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B. SWITCHES, RECEPTACLES AND FIXTURES

1. SWITCHES

All 5/15 amps. Switches shall be enclosed type flush mounted switches. All fan regulators shall be fixed inside the switch boxes on adjustable flat M.S strips/ plates with tapped holes and machine screws, leaving ample space at the back and sides for accommodating wires. Grid plates shall be used to fix switches. The switch controlling the light point or fan shall be connected on to the phase wire of the circuit. Switches shall be located at 1400 mm. above floor level unless otherwise indicated

Flush Plates:

Switches, receptacles, Electronic and Telephone system outlets in walls shall be provided with white cream urea powder pressed cover plates of approved shape and size and secured to the box with round head brass screw.

Externally operated switches:

Externally operated switches shall be of general purpose type, 250 volts of the proper size and rating and shall be provided in weather proof enclosures, complete with weather-proof gasketed covers. The fuses for all externally operated switches shall be separated and of proper rating.

2. WALL SOCKET OUTLET:

All 5/15 amp. Wall socket outlets were called for in the drawings shall be of three round pin type. The switch and socket shall be located in the same plate. The size of plate for switched plugs and un switched plugs, telephones outlets shall be provided with an appropriate 3 pin plug top. The socket and telephone outlet shall be located 200 mm. above finished floor level unless otherwise mentioned.

The switch controlling the socket outlet shall be on the phase of the circuit. An earth wire shall be provided along the cables feeding socket outlets for electrical appliances. The earth wires shall be connected to earthing terminal screw inside the box.

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LIGHTING FIXTURES FANS, EXHAUST FANS

1. GENERAL

The light fixtures and fittings shall be assembled and installed in position complete and ready for service, in accordance with details, drawings, manufacturer's instructions and to the satisfaction of the Architect. Pendant fixtures specified with overall stem lengths are subject to change and shall be checked with conditions in the job and installed as directed with directed. All suspended job and installed as directed. All suspended fixtures shall be mounted rigid and fixed in position in accordance rigid and fixed in position in accordance with drawings, instructions and to the approval of the Architect. Fixtures shall be suspended true to alignment, plumb, level and capable of resisting all lateral and vertical forces and shall be fixed as required.

All suspended light fixtures, fans etc, shall be provided with concealed suspension arrangement in the concrete slab/ roof members, if the work is of concealed nature. It is the duty of the contractor to make these provisions at the appropriate stage of constructions. Exhaust fans shall be fixed at location near the fan. All switch and outlet boxes, for fans and light fittings shall be bounded to earth with 2 mm. dia bare copper wire or equivalent. Wire shall be connected to all fixtures through connector blocks. Wires brought out from junction boxes shall be encased in G.T. flexible pipes for connecting to fixtures concealed in suspended ceiling. The flexible pipes shall be check-nuted._

2.POINT MEASUREMENT:

Unless otherwise specified 'Point' will comprise of Sub-mains from distribution board to the switch-board, control switch with the housing as specified, control switch with the housing as specified, conduits, accessories, junction boxes, wires upto and including batten holder/ ceiling rose or junction box with a terminal block etc.

A group of x points means x fixtures/ ceiling rose/batten holder by one switch and will be considered as one point.

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DISTRIBUTION BOARD SUITABLE FOR MCB'S (MCBDB)

HORIZONTAL / VERTICAL TYPE DB'S

Scope:

Supplying of MCBDB suitable for 230 V / 415 V, horizontal/vertical, with/without door of specified ways (poles), surface / flush mounting to house incoming and outgoing MCB's, and erected on iron frame.

General Specifications for MCBDB's

- DB's shall be prewired and shall be fabricated as per IS: 8623.

- Suitable for flush mounting & surface mounting, with 100 A copper bus bar (For Horizontal type DB), neutral bar, earth bar & cable ties for cable management.

- In case of Vertical DB the bus bar shall be of 200 A rating.

- DB's shall be of IP – 43 degree of protection.

- All the MCB distribution boards shall be fabricated out of 18 SWG thick sheet steel duly rust inhibited through a process of degreasing, pickling, phosphating & powder coating to an approved colour over primer & shall be of the totally enclosed dust proof type suitable for wall mounting.

- All components shall be mounted on DIN rails & covered totally with a sheet steel cover rendering it finger-safe. Access to the internal connections shall be only through removing the cover sheet.

- All DB's shall be internally prewired using copper insulated high temperature PVC wires.

- Bus bars & neutral bar shall be fully insulated with standard colour code.

- Bus bar withstanding capacity shall be 10kA.

- DB's must have facility of reversing door without modification, pan assembly for ease of installation & convertible locking.

MATERIAL:

Horizontal/Vertical type MCBDB:

ISI marked as per IS 8623, of specified ways (poles), surface/flush mounting, with/without door, suitable for 230 V / 415 V.

Lugs – Copper lugs of suitable size should be provided.

Iron work: Suitable size of angle/flat.

Hardware: SM screws, rawl plug, gutties, etc.

Method of Construction:

MCBDB shall be erected at designated location and directed by site engineer and terminating the provided wires by copper lugs (crimping type) and connecting the same.

Mode of Measurement: Executed quantity shall be counted on number basis. (i.e. each)

L. T. PANEL

GENERAL

All material shall confirm to relevant standard as per BIS and shall carry ISI mark. Work shall be carried out as per the method of construction as specified by BIS/Chapter 16 of P.W. Dept. Handbook/NEC.

Refer IS; 13947/1993, For Switch gears, IS: 13703/1993 for HRC fuses.

Incoming contacts for all switchgears shall be shrouded for avoiding accidental contact.

LT Panels, Main Distribution Boards Sub-Distribution Boards and Feeder Pillars, Distribution Boards shall be suitable for operation on 3 phase / single phase. 415/230 volts, 50 cycles, neutral grounded at transformer and short circuit level not less than 35 MVA and 415 volts.

The Distribution Boards shall comply with the latest edition of relevant Indian Standards and Indian Electricity Rules and Regulations. Larsen & turbo Switchgear pr Approved equal switchgear to be used in all distribution boards as panels. All the M.V. Panels, sub distribution boards and final distribution as per the specifications given below:

1. CONSTRUCTION FEATURES:

The Distribution Boards shall be metal enclosed sheet cubical indoor, dead front, floor, floor-mounting type. The distribution boards shall be totally enclosed, completely dust and vermin proof. Gasket between all adjacent units and beneath all covers shall be provided to render the joints dust proof. Distribution Boards shall be preferably arranged in multi tier formation. All doors and covers shall be lockable. All M.S. sheet steel used in the construction of distribution boards shall be 2 mm. thick and shall be folded and braced as necessary to provide a rigid support for all components. Joints

of any kind in sheet metal shall be seam welded, all welding slag grounded off and welding pits wiped smooth with plumber metal.

All panels and covers shall be properly fitted and square with the frame and holes in the panel correctly positioned. Fixing screws shall enter into holes tapped into an adequate thickness of metal or provided with hank nuts. Self treading screws shall not be used in the construction of distribution boards. A base cannel of 75 mm x 75 mm x 5 mm thick shall be provided.

The Distribution boards shall be of adequate size with a provision of 25% spare space to accommodate possible future additional switchgear.

Knockout holes of appropriate size and number shall be provided in the Distribution Board in conformity with the location of incoming and outing conduits/cables.

Main and sub-distributions boards shall be approved with removable sheet steel plates at top and bottom to drill holes for cable/conduit entry at site.

2. CIRCUIT COMPARTMENTS:

Each circuit breaker and switch fuse units shall be housed in separate compartments and shall be enclosed on all sides. Sheets steel hinged lockable door shall be duly interlocked with the breaker/switch fuse unit in 'on' and 'off' position. Safety interlocks shall be provided for air circuit breakers as to prevent the breaker in 'on' position. The door shall not form an integral part of the draw out portion of the ABC. All instruments and indicating lamps shall not be mounted on the ABC compartment door. Sheet steel barriers shall be provided between the tires in a vertical section.

3. BUS BARS AND BUS BAR CONNECTIONS:

The bus bar and interconnections shall be electrolytic aluminum/copper and of rectangular cross section suitable for full load current for phase bus bars and half rated current for neutral bus bar and shall be extensible on either side.

The bus bars and interconnections shall be insulated with insulation tapes and colour coded. The bus bars shall be supported on unbreakable, non-hygroscopic insulated supports at regular intervals to withstand the forces arising from short circuit in the system. All bus bars shall be provided in a separate chamber and property ventilated.

All bus bars connections in Main distribution boards shall be done by clamping. No holes shall be drilled in the Main Distribution Board bus bars.

All bus bar connections in sub-distribution boards and final distribution boards shall be done by drilling holes and connecting by brass bolt and nuts. Additional cross section of bus bars shall be provided in sub and final distribution boards to cover up the holes drilled in the bus bars.

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Automatically operated safety shutters to screen the live cluster when the breaker is withdrawn from cubicle provided.

All connections between bus bars and switches and between switch cable alloy terminals shall be through solid aluminum copper strips of proper size to carry full rated current insulated with insulating tapes.

All distribution boards (M.V. Panels, Main Distribution Boards, Sub-Distribution Boards shall be provided with fuse switch units (with HRC fuse links) of appropriate capacity. All final distribution boards shall be provided with MCB's/ molded fuse fittings for each circuit and incoming supply through a double pole MCB isolator. Separate neutral bus bar shall be provided TPN distribution boards.

Solid links between MCB isolator and backed up HRC fuse and Neutral bus bar shall be provided. The neutral shall be looped from one phase to another through DP isolators. MCB's/fuse links shall be provided on the phase or live conductor of each circuit and neutral bar for the earthed neutral. The individual banks of MCB or fuse fittings shall be detachable. Phase separation barriers of 5 mm thick bakelite sheet shall be provided between the bank of MCB's or moulded fuse fittings. There shall be ample behind the bank of MCB's or molded fuse fittings to accommodate all the wiring. All the internal wiring of final distribution boards shall be concealed behind 5 mm thick bakelite sheet. All the internal wiring of final distribution boards shall be concealed behind 5 mm thick bakelite sheet. All the distribution boards shall be completely factory wired, ready for connection. All the terminals shall have adequate current rating and size to suit individual feeder requirement. Each circuit shall be clearly numbered from left to right to circuit to circuits shall be distinctly marked with a small description of the service installed.

4. TERMINALS:

The outgoing terminals of the breaker and neutral link shall be brought out to a terminal block suitably located at the rear side of the panel. The current transformer for instruments metering and for protection shall be mounted on the terminal blocks. Separate cable compartments shall be provided for incoming and outgoing cables.

5. WIREWAYS:

A horizontal wire way with screwed covers shall be provided at the top to take interconnecting control wiring between different vertical sections.

6. CABLE COMPARTMENTS:

Cable compartment of adequate size shall be provided in the main Distribution Boards for easy termination of all incoming and outgoing cables entering from bottom or top. Adequate proper supports shall be provided in cable compartments to support cables. All incoming and outgoing switches terminals shall be brought out to terminal blocks in the cable compartments.

7. FUSE SWITCHES UNITS:

The Fuse switch units be pole double breaker type suitable for load duty quick make and break action. Separate neutral link shall be provided with hinged doors duly interlocked with operating mechanism so as to prevent opening of the door when the switch is in 'ON' position and also prevent closing of the switch when the door is not properly secured. All contacts shall be silver-plated and all live parts shall be shrouded. The incoming and outgoing terminals of switch shall be adequately sized to receive proper size of aluminum conductor wire cables. High rupturing capacity (HRC) fuse links shall be provided with switch fuse units and shall be in accordance with IS : 2208 – 1962 and having rupturing capacity of not less than 35 MVA at 415 volts. HRC fuse links shall be provided with visible indicators to show that they have operated, switch fuse units shall be of Larsen & Turbo make or approved equal. The switch fuse units shall be manufactured in accordance with IS 4047 – 1967 amended to date.

8. MINIATURE CIRCUIT BREAKER:

Miniature Circuit Breaker shall be quick make and break type and conform with British Standard BS : 3871 (Part I) – 1965. The housing of MCB's shall be heat resistant and having a high impact strength. The fault current of MCB a shall not be less than 3000 amps, at 230 volts. The MCBs shall be fuel mounted and shall be provided with trip free manual operating mechanism with mechanical 'ON' and 'OFF' indications.

The MCB contacts shall be silver nickel and silver graphite allot and tip coated with silver. Proper arc chutes shall be provided to quench the arc immediately. MCR's shall be provided with magnetic fluid plunger releases for over current and shot circuit protection. The overload or short circuit devices shall have a common trip bar in the case of DP and TPN Miniature Circuit Breakers. MCB's shall be of hymag make of approved equal. All the MCBs shall be tested and certificate as per Indian Standards prior installation.

9. FUSES:

Fuses shall be high rupturing capacity (HRC) fuse links and shall be in accordance with I S 2208 – 1962 and having rupturing capacity of not less than 35 MVA at 415 volts.

10. METERS:

All meters and relays shall be housed in a separate compartment and accessible from front only. Lockable doors shall be provided for the metering and relay compartment. The Main breaker shall be provided with 'ON' and 'OFF'. Indicating lamps. The details of other meters relays and indicating lamps are as described in each switchboard and neutral selector switch of appropriate arrange and scale. Wiring for meters and relay shall be colour coded and labeled with approved plastic beads for easy identification.

Calibration certificate of all meters and test certificate of all relays shall be submitted.

11. CURRENT TRANSFORMERS:

Where ammeters are called for C.T. shall be provided for current measuring more than 100 amps. Each phase shall be provided with separate current transformer of accruing Class 1 and suitable V.A. Burden for operation of associated metering. Current transformers shall be in accordance with IS: 2705 – 1964 as amended up to date.

12. EARTHING:

Copper earth bars of 25 mm x 3 mm or 40 x 6 G.I shall be provided for L.T panel and Main distribution boards for the full length of the distribution boards and connected to the frame work of the distribution board. Provision shall be made for connecting from this earth to the main earthing bar on both side of distribution board. Proper earthing terminals shall be provided in the final distribution boards.

13. PAINTING:

All sheet steel work shall undergo a process of degreasing picking in acid, cold rinsing, phosphate, passivating and then sprayed with a high corrosion resistant primer. The primer shall be baked in an oven. The finishing treatment shall be by application. Two coats of synthesis enamel paint or approved colour and staved.

14. LABLES:

Engraved metal / PVC labels shall be provided on all incoming and outgoing feeder switches. Circuit diagram showing the arrangements of the circuit inside the distribution board shall be pasted on inside of the panel door and covered with transparent laminated plastic sheet.

All the distribution boards shall be subject to test specified in relevant Indian Standards and test certificate shall be furnished

15. SHOP DRAWINGS:

Before fabricating the switch boards the contractor to submit shop drawings for all the switch boards to the electric consultant and get approved from the consultant.

16. INSPECTION:

At all responsible times during production and prior to shipment of equipment the contractor shall provide and secure for Architect /Owner representative every reasonable access and facility at their inspection

17. TEST CERTIFICATES:

Testing of distribution boards shall be carried out at factory or at site as specified in Indian Standards institution. The test certificates for the test carried out at factory or at site shall be submitted in duplicate.

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LT CABLE

The following list records those Indian Standards in force, which are acceptable as good practice, and accepted standards.

SP 30: 1984 : National Electrical Code

SP 7 (Group 4): 2005 : National Building Code

IS 3961: Part 2: 1967 : Recommended current ratings of PVC cables.

IS 1554: Part 1; 1988 : PVC Insulated (Heavy duty) Electric Cables; Part 1 for working voltages up to and including 1100 Volts.

IS 10810: Part 63; 1993 : Method for Test of cables, Part 63 Smoke density of electric cables under fire condition.

1.GENERAL:

LT cables shall be supplied, laid, tested armoured commissioned in accordance with drawings, specifications, relevant Indian Standards Specification and manufacturers name clearly written on the drums.

2.MATERIAL:

LT CABLES:

LT Cables shall be PVC insulated aluminum conductor armored and unarmored cable conforming to IS 694 (Part II) 1964 LT Cables shall be suitable for underground use laid trenches, ducts and tunnels as shown on drawings.

LT Cables shall be termite resistant. LT Cables shall be manufactured by reputed manufacturer.

JOINTS IN CABLES:

The Contractor shall take care to see that all the cables are apportioned to various locations in such a manner as to ensure that no straight joints in the cable run. If the straight joint in cable is unavailable due to any specified reasons prior permission, in writing shall be obtained from the Architect before the use of such straight joints in cable.

JOINTING BOXES FOR CABLES:

Cable jointing boxes shall be of appropriate size, suitable for paper / PVC insulated cables of particular voltage ratings, and shall be manufactured by Siemens India/ Indian Cable Company and approved make.

JOINTING OF CABLES:

All cable joints shall be made in suitable approved cable joint boxes and the filling in of compound shall be done in accordance with manufacturer's instructions and in and approved manner. All straight and T - joints shall be done in epoxy module boxes with TROPOLIN/M - Seal resin or approved equal. All the jointing accessories shall also be manufactured by INCAB Siemens Indian Limited or approved equal. All the terminal ends of conductors shall be heavily soldered up to at least 50 mm length.

All cables shall be joined colour to colour and tested for Insulation Resistance and continuity before jointing commences. The seals of cables must not be removed until preparations for jointing are completed. Joints shall be finished on the same day as commenced and sufficient protection from the weather shall be arranged. Joints shall be made by means of suitable solder for conductors, the conductors being firmly butted into the connection or thimbles for ferrule and the whole soldered with proper solder and soldering flux or resin.

The conductors shall be efficiently insulated with high voltage insulating tape and use of separators of approved size and patterns. The shall be completely filled with epoxy compound being toped as necessary to ensure that the box is properly filled.

CABLE TERMINATION:

Cable termination shall be done in terminal cable box using cable glands and the cable ends sealed with sealing compound. The cable boxes of transformers shall be filled with bituminous compound manufactured by M/s. Siemens India Ltd. or INCAB

BONDING OF CABLES:

Where a cable enters any piece of apparatus. It shall be connected to the clamp and gland. The clamps must grip the armouring firmly the land or casing, so that in the event of ground movement no undue stress is passed on the cable conductors. The glands shall be either to the lead sheath by means of 'Pumping Joint' as on a cone of approved materials, , capable of being compressed into lead

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sheath. The gland or cone shall be capable of affecting a good electrical bond between both the armouring and lead of the cable, and the casing.

LAYING OF CABLES:

Skilled and experienced workers using adequate rollers to minimize stretching of the cable shall lay cables. The cable drums shall be placed on jacks before unwinding the cable. Great care shall be exercised in laying cables to avoid forming kinks. The drums shall be unrolled and cables run over wooden rollers in trenches at intervals not exceeding 2meters. Cables shall be laid at depth of 750mm depth below ground level in the case of LT cables. A cushion of sand, not less than 80mm shall be provided both above and below the cable and joint boxes and other accessories. The cable shall be laid in excavation trench, 80 mm layer of sand shall be spread over the cable. The cable then shall be lifted and placed over the sand bed. The second layer of 80 mm sand then be spread over the cable. The relative position of the cables laid in the same trench be preserved and the cables shall not cross each other as far as possible. At the changes in direction in horizontal and vertical planes, the cable shall be bent smooth with a radius of bent not less than 12 times the diameter of cable. Minimum 3M long loop shall be provided at both sides of every straight joint and 5 meters at each end of the cable. Distinguishing marks shall be made on the cables ends for identification. Insulation tapes of appropriate voltage and in red, yellow and blue colours shall be wrapped just below the sockets for phase identifications.

PROTECTION OF CABLES:

The cable shall be protected by placing burnt bricks over the cables on the top layer of sand for the full length of underground cable. Where more than one cable is running in the same trench, the bricks shall cover all the cables and shall project a minimum of 80mm on either side if the cables.

Cables under road crossing and any surface subjected to heavy traffic, shall be protected by running them through hum pipes of suitable size.

CABLES INSIDE BUILDING:

Cables inside buildings shall be laid either in masonry trenches or carried on through, racks or brackets. Where cables run in ducts inside the buildings the cables shall be adequately clamped to angle iron brackets, secured to the wall, as directed and approved by the Architect. Where cables are suspended from ceilings they shall be carried over through or racks as directed and approved by the Architect. The supports shall be placed not more than 1.0 meter apart. All cables passing through walls shall run through stone ware pipes or hum pipes of adequate diameter recessed or exposed as directed. Cable running along walls shall be supported and clamped to saddles, or hangers rigidly anchored at close intervals. Clear space between parallel cables shall be equal to the diameter of the cable but not less than 50 mm. Where called for cable trenches shall be filled with fine sand. The Contractor shall ensure that hangers, brackets and other supporting arrangements for cables are

placed in proper position at the time of building the walls, concreting slabs etc. cutting holes or opening in concrete may be carried out only with prior permission of the Architect.

EXCAVATIONS AND BACK FILL:

All excavations and back fill including timbering shoring and pumping required for the installation of the cables shall be carried out by the drawings and requirements laid down elsewhere. Trenches shall be dug true to line grades. Back fill for trenches shall be filled in layers not exceeding 150 mm. Each layer shall be properly rammed and consolidated before laying the next layer. The Contractor shall restore all surfaces, roadways, side walks, curbs, walls or other works cut by excavation to their original condition, satisfactory to the Architect.

MARKERS AND WARNING PLATES:

Approved CI cables markers shall be provided along the route of the cables at every 30 meter distance and at both ends of road crossing, indicating HV cables and MV cables as applicable. Special CI markers shall be provided at all buried cable joints indicating 'Electrical Cable Joints'. C.I. Plates engraving the size of cable and the place it serves shall be tied to the cable at regular intervals of 2 meters for easy identifying the cables.

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EARTHING

The following list records those Indian Standards in force, which are acceptable as good practice, and accepted standards.

IS 3043 1966 : For Earthing Installation

GENERAL

All the non-current metal parts of electrical installation shall be earthed properly. All metal conducts, trunking, cable sheaths, switchgear, distribution fuse boards, lighting and fittings and all other parts made of metal shall be bonded together and connected by means of specified earthing system. All earthing conductors to and efficient with the relevant provision of Rules 33 and 61 of the Indian Electricity Rules 1956. and Indian Standard Specification IS : 3043 – 1966.

EARTHING CONDUCTORS:

All earthing conductors shall be of high conductivity copper or G.I and shall be protected against mechanical injury or corrosion.

SIZING OF EARTHING CONDUCTORS:

The cross sectional area of copper earthing conductor shall not be smaller than half that of the largest current carrying conductor subject to an upper limit of 80 / 125 sq.mm if the area of the largest current carrying conductor or bus bar exceeds 160 sq.mm the two or more earthing conductors shall be used in parallel, to provided at least half the cross sectional area of the current carrying conductor or bus bars. All fixtures, fans outlet boxes and junction boxes shall be earthed with G.I./ copper wire. All single phase metal clad switches and distribution boards shall be earthed with 4 mm dia bare copper/ G.I wire.

All 3 phase switches and distribution boards up to 60 amps rating shall be earthed with 2 nos. distinct and independent 4 mm dia bare copper/ G.I wires. All 3 phase switches and distribution boards up to 100 amps rating shall be earthed with 2 nos. distinct and independent 6 mm dia bare copper/G.I wires. All switches bus bar ducts and distribution boards of rating 200 amps

and above shall be earthed with a minimum of 25 mm x 3 mm copper/ G.I tape. Transformer neutral shall be earthed with two separate earth, electrodes. The minimum size of copper strip for Transformer neutral earthing shall be 50 mm x 3 mm.

CONNECTION OF EARTHING CONDUCTORS:

Main earthing conductors shall be taken from the earth connections at the main switch boards to an earth electrode with which the connection is to be made. Sub-main earthing conductors shall run from the main switchboard to the sub – distribution boards.

Circuit earthing conductor shall run from the exposed metal of equipment and shall be connected to any point on the main earthing conductor, or its distribution boards or to an earth leakage circuit breaker. Metal conducts, cable sheathing and armoring shall be earthed at the ends adjacent to switchboards at which they originate, or otherwise at the commencement of the run by an earthing conductor in effective electrical contact with cable sheathing. Where equipment is connected by flexible cord, all exposed metal parts of the equipment shall be earthed by means of an earthing conductor enclosed with the current carrying conductors within the flexible cord. Switches, accessories, lighting fitting, etc.,

which are rigidly secure in effective electrical contact with a run of metallic conduct shall not be considered as a part of earthing conductor for earthing purpose, even though the run of metallic conduct is earthed.

PROHIBITED CONNECTIONS:

Neutral conductor, sprinkler pipes, or pipes conveying gas, water or inflammable liquid, structural steel work, metallic enclosure or cables and conductors, metallic conduits and lightning protection system conductors shall not be used as a means of earthing and installation or even as a link in an earthing system. The electrical resistance of metallic enclosures for cables and conductors measured between earth connection at the main switchboard and any other point on the completed installation shall be low enough to permit the passage of current necessary to operate fuse or circuit breakers and shall not exceed 1 ohms.

PROTECTION FROM CORROSION:

Connections between copper and galvanized equipment shall be made on vertical face and protected with paint and grease. Galvanized fixing clamps shall not be used for fixing conductors. Only copper fixing clamps shall be used for fixing earth conductors. When there is evidence that the soil is aggressive to copper, buried earthing conductors shall be protected by suitable serving and sheathing

EARTHING STATION

PLATE ELECTRODE EARTHING :

Earthing electrode shall consist of a tinned copper plate not less than 600mm x 600mm x 3mm thick or 600 x 600 x 6mm G.I as called for in the drawing or as specified in Bill of Quantities. The plate electrode shall be buried as far as practicable below permanent moisture level but in any case not less than 3 meters below ground level.

Wherever possible earth electrodes shall be located as near the water tap, water drain or a down take pipe as possible. Earth electrodes shall not be installed in proximity to a metal fence. It shall be kept clear of the buildings foundations and in no case shall it be nearer than 2 meters from the outer face of the wall. The earth plate shall be set vertically and surrounded with 150 mm thick layer of charcoal dust and salt mixture. 20 mm GI pipe shall run from the top edge of the plate to the ground level. The top of the pipe shall be provided with funnel and a mesh for watering the earth through the pipe. The funnel over the GI pipe shall be housed in a masonry chamber, approximately 300 mm x 300 mm x 300 mm deep. The masonry chamber shall be provided with a cast iron cover resting over a G.I. frame embedded in masonry.

PIPE ELECTRODE EARTHING:

Earthing electrode shall consists of a G.I. pipe (class 'B') Indian Tube Company make or approved equal),not less than 40 mm dia and 5 meter long. G.I. Pipe electrode shall be cut tapered at the bottom and provided with holes of 12 mm dia drilled at 75 mm interval up to 2.5 meters length from bottom. The electrode shall buried vertically in the ground as far as practicable below permanent moisture level with its top not less than 200 mm below ground level. The electrode shall be in one piece and no joints shall be allowed in the electrode. Wherever possible earth electrodes shall be located as near water tap, water drain or down take pipe. Earth electrode shall not be located proximity to a metal fence. It shall be kept clear of the building foundation and in no case shall be nearer than 2 meters from the outer face of the wall.

The pipe earth electrode shall be kept vertically and surrounded with 150 mm thick layer of charcoal dust and salt mixture up to a height of 2.5 meters from the bottom. At the top of the electrode a funnel with a mesh shall be provided for watering the earth. The main earth conductors will be connected to the electrode just below the funnel, with proper terminal lugs and checks nuts. The funnel terminal lugs and check-nuts. The funnel over the GI pipe and earth connection housed in a masonry chamber, approximately 350 mm length x 30 mm wide and 300 mm deep. The masonry chamber shall be provided with a cast iron cover resting over a C.I frame embedded in masonry.

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EARTH CONNECTION:

All metal clad switches and other equipments carrying single phase current, shall be connected to earth by a single connection. All metal clad switches carrying medium voltage and high voltage shall be connected with earth by two separate and distinct connections. The earthing conductors inside the building whenever exposed shall be properly protected from mechanical injury by running the same G.I. pipe of adequate size.

Earthing conductors outside the building shall be laid 600 mm below the finished ground level.

The over lapping in copper strips at joints where required, shall be minimum 75 mm. The joints shall be riveted with copper reverts and breaxed in approved manner. Sweated lugs of adequate capacity and size shall be used for all termination of wires above 6 sq.mm. size and bare copper wire above 2.5 mm dia. Lugs shall be bolted to the equipment body to be earthed after the metal body is cleaned of paint and other oily substance and properly tinned.

EARTH RESISTANCE:

The earth resistivity of the sell where the earthing stations are located shall be submitted to the Architect before the earthing work started and get the approval of the Architect. If the earth resistance is too high and multiple electrode earthing does not give adequate low resistance to earth, then the soil resistance shall be reduced by adding sodium chloride, calcium chloride, sodium carbonate, copper sulphate, salt and soft coke or charcoal in suitable proportions as directed by the Architect.

RESISTANCE TO EARTH:

The resistance of each earth system shall not exceed 1.0 ohm in the case of M.V. system and 0.5 ohm in the case of H.V system.

Telephone wiring (TW)

1. General

All material shall conform to relevant standard as per BIS and shall carry ISI mark. If any particular category of material for which PSI mark is not available in market, it shall be approved either by ITD *I* DOT of Govt. of India.

Work shall be carried out as per the Method of Construction specified by BIS and as

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specified by DOT (Department of Telephone), Govt. of India.

Material and Work not qualifying to any provision mentioned above shall be to the satisfaction of Authority's Engineer / PMC.

2. Scope:

Specification No (WG-TW)

To provide wiring for telephone on surface of wall or ceiling concealed in slab, wall, under flooring, etc, through existing metallic conduits, rigid PVC conduits, PVC trunking, with all necessary hardware, material, etc. as specified.

To provide, install, test & commission the instruments / equipments and accessories used in telephone system, such as; Main Distribution Frames (MDF), Krone Modules, Over Voltage Magazine, PBX / EPABX, CO-axial cable, Rosette box, Jumper wire, etc.

3. **Material:**

PVC Telephone cable: PVC insulated Tinned copper solid conductor with minimum 0.5 mm dia. (Single & Multi pair) properly paired and colour coded, shall be terminated on KRONE module with suitable tool.

Jelly filled Armoured Telephone cable: PVC insulated, PVC sheathed with steel armouring, Tinned copper solid conductor with minimum 0.5 mm dia multi pair, with Jelly, properly paired and colour coded.

Saddles: Saddles fabricated from G I sheet of required gauge (16/18 gauge) either galvanized finish or painted with superior quality enamel black paint, with necessary

shearing for mechanical strength, semi circular shaped with extended piece having suitable holes for fixing on spacer.

Hardware: Sheet Metal (SM) screws of required sizes, plugs, wooden gutties, etc.

MDF: Manufactured by reputed manufacturer of specified capacity, facility for wall mounting, with door & lock, aluminium frame for fixing of KRONE, duly enclosed in cabinet made from 18 SWG CRCA sheet with powder coating of required colour.

Light / Power circuit	Black
Security wiring	Blue
Fire Alarm wiring	Red
Low voltage circuits	Brown
UPS circuits	Green

Phase	Red, Yellow, Blue
Neutral	Black
Earth	Green

Junction box: Manufactured by reputed manufacturer of specified capacity, facility for + wall mounting, with door & lock, aluminium frame for fixing of Krone, duly enclosed in cabinet made from 18 SWG CRCA sheet with powder coating of required colour. The depth of the box should consider the height of KRONE module plus protection magazine.

Over Voltage protection Magazine: Manufactured by reputed manufacturer of 10 pair capacity, with 3 pole gas discharge tube should be properly fitted on KRONE module in MDF / Junction box.

Rosette box: PVC I Bakelite box with LED indicator, RJ 11 jack, facility for fixing on wall.

Jumper wire: Twin twisted PVC insulated with Tinned copper solid conductor minimum 0.5 mm dia.

KRONE Module: Disconnection type KRONE module having capacity to connect 10 pairs with silver-plated terminal contacts.

RG-11 Co-axial low voltage grade cable: PVC insulated with Tinned copper solid conductor minimum 0.5 mm dia, with connector at both ends suitable for termination in RJ type socket.

PBX (Analogue type): Manufactured by reputed manufacturer and approved by Telephone Engineering Certificate (TEC) of specified extensions, having following features:

- Direct Inward dialling (DID) with voice guidance facility.
- Caller line Identification (CLI) on Analog as well as digital extension.
- Call Billing software (CB)
- Dynamic STD locking
- Conferencing facility for specified extensions.

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EPABX (Digital type): Manufactured by reputed manufacturer and approved by Telephone Engineering Certificate (TEC) of specified extensions, having following features:

- Direct Inward dialling (DID) with voice guidance facility.
- Caller line Identification (CLI) on Analog as well as digital extension.
- Call Billing software (CB)
- Dynamic STD locking
- Conferencing facility for specified extensions.

. Provision of battery back-up and power failure line transfer.

Method of Construction:

1 Drawing of telephone wire through Steel conduit /PVC conduit /PVC Trunking:

As specified in Chapter for Point Wiring.

2 Erection of Jelly filled armoured Telephone cable:

Erection shall be done as per the layout finalized, in perfect level and plum. Before fixing the cable shall be straightened as far as possible for good aesthetics look. Cable shall be fixed with saddles firmly clipped on cable. Saddles shall be fixed to wall with minimum 50x8 mm SM screws with plugs/wooden gutties (Distance between two saddles shall be minimum 600 mm). Wooden gutties shall be used wherever required (Especially for stone wall). The entries made in wall, floor slab, etc for laying the cable shall be made good by filling and finishing with plastering the same.

3 Erection of MDF Junction box / Rosette box / PBX / EPABX, etc:

Specified equipment shall be fixed to wall with minimum 50x8 mm SM screws, with

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necessary plugs, wooden gutties, etc. or may be fixed on Table Top if required.

Mode of Measurement:

Work done for telephone in Steel / PVC conduit / PVC Trunking will be measured on running meter basis, (i.e. per running meter) for each single run. For the other accessories / equipments shall be done as per unit specified. (I.e. Job / each)

TECHNICAL SPECIFICATION

1. TRANSFORMER

The Transformer should be of **630 KVA** 3 Phase 50 c/s. Oil immersed and naturally cooled, Outdoor type copper wound transformer connected delta on HV side and star on LV side with additional neutral brought out on load side, rating 11000/433 volts with HV tapping in steps of + / - 2.5 % to + 5% continuously rated for full load & temperature rise not exceeding 45 degree C by thermometer in oil and 50 degree C by resistance of the winding after continuous run at full load rating complete with R 2 32 Port compatible to B M S systems with following standard mountings.

Standard Accessories

1. OFF load Tap changing switch.
2. Oil conservator with filling holes & cap & plain oil level gauge.
3. Silica gel dehydrating breather.
4. Oil Drain Valve
5. Thermometer pocket for measurement of oil temp.
6. Standard pocket for measurement of winding temperature
7. Oil filter valve
8. Lifting arrangement.
9. Two earthing terminals.
10. Diagram & rating plate.
11. First filling of oil with dielectric strength of 50 KV / No break.
12. Four bi- directional plain rollers.
13. Air vent.
14. Explosion vent.

General Arrangements

The terminal arrangements - 11 KV Cable end box on HV side & cable end box on LV side to accommodate HT Cable of 3C x 300 sq.mm. & LT cables of 4x 3.5 C x 300 sq.mm. The Transformer shall be tested at factory in presence of Department Engineer before dispatch to site. and the losses shall not be exceed 1000 W. on No load & 7000 Watts On Load.

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INSTALLATION:

i) The transformers shall be installed as per installation manual of the transformer supplied and installation shall conform to Indian Standard IS : 1886 -1967.

ii) The transformer shall be erected on the concrete foundation. The transformer shall be lifted by all the lifting lugs for the purpose of avoiding unbalance in lifting.

iii) The transformer wheels shall be locked by suitable locking arrangement to avoid a accidental movement of the transformer.

iv) The transformer neutral earthing and body earthing shall be done as shown in the drawing and shall confirm to Indian Standard IS : 3043 – 1966.

TESTING:

Prior to commissioning of the transformer, following tests shall be carried out in the presence of Architect.

Insulation resistance of the winding between phases and between phase and earth, on H.V and M.V sides.

i) Winding resistance of all winding on all tap positions shall be taken. Di – electric strength of transformer oil shall be checked in accordance with IS : 33 1963.in case the test is not satisfactory, the oil shall be filtered till proper di-electric strength of oil is obtained.

ii) The transformer brearther shall be cleaned and filled with oil and silica gel

iii) Voltage ratio shall be carried out by applying low voltage and high voltage side and measuring voltage between all the phase for every tap position on low voltage side, if required.

- If required, heat run test of transformer for at least 48 hours or till all moisture in the transformer winding is removed. Apply low voltage of H.V. side and short the terminals on M.V side for heat run test. This test may be done if found necessary.
- On commissioning of the transformer, following readings shall be taken M.V. side voltage at all tap positions. Temperature rise under no load conditions shall be recorded

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11 KV OUTDOOR TYPE SUBSTATION

Structures:

For structure stability proper Angle Iron bressings shall be provided. For supporting gang operating 11 KV Airbreak switches, dropout fuses, guide insulators, lighting arrestors and bus bars. Provided proper M.S. Channel or M.S. Angles are required.

Cross Arms:

Cross arms shall be of M.S channel Iron of size not less than 10cm x 10cm x 6mm.

1.11 KV pin Type Insulators:

These Insulators shall meet the following standards of Indian standards Institution and bear the certification marks of ISI as regards their quality and soundness in all respects

i IS 731 – as amended upto-date for porcelain Insulators for overhead power lines 3.3 KV and above

ii IS 2544 – as amended upto-date. Procelain post Insulators 3.3 KV and above.

2. H. T. Insulator fittings:

These shall comply with the test and specification as laid down in IS 248 – 1963 (part I and II) specification for the insulator fittings of overheaded power of 3.3 KV and above. General requirements tests and dimensional requirements

3. 11 KV Lightning Arrestors:

11 KV lightning arrestors shall be of single core. Thyrite , magne value distribution class (500 amps. discharge current rating) lightning Arrestors rate at 9KV suitable for altitudes upto 12000 ft. These shall be supplied for use on 11 KV neutral grounded systems as required or any other equipment types approved by EIC.

G. 11 KV Gang operated A B Switches and dropout fuses :

Gange operated A B switches shall be suitable for 11 KV 400 amps. and shall be of 3 phase 30 cycles pole mounted type, 3 insulator per phase. Triple pole rocking, outdoor types, gange operated, air break switches, suitable for both horizontal or vertical mountings complete with the following components

1. 11 KV post insulators.
2. Channel bases for mounting post insulators.

3. Operating mechanism complete with 18/20 feet long operating pipes, phase coupling shaft operating handle with padlock arrangements.
4. M.S. Arcing horns.
5. Proper connecting arrangements for accommodation incoming outgoing aluminum conductor wires.
6. Non-ferrous parts shall be electroplated and ferrous parts shall be hot dip galvanized. The A B Switches should be capable to withstand 100 MVA 11 KV.

G.Fuse Mountings:

All current carrying parts shall be aluminum bronze gravity die casting with the exception of the brush contacts which should be made of extra hard phosphate bronze and the H. D. High Conductivity copper top bracket. The insulators are brown glazed porcelain. Connection to the fuse mount are made at top and bottom by spring washers.

Fuse Carrier:

Fuse carrier shall consists of bakelite/fiber tube of special quality suitable for outdoor use and lined with gray fiber; each and shall have a ferule. The bottom of ferrule shall be fitted with a pivot pin, which in the hook casting of the fuse mount. A flat surface on the ferrule shall make a contact with the brush contact on the mounting. The top ferrule aeries the collapsible batch of which is another flat surface for making contact with the top brush contact. The ferrules and lath shall be aluminium bronze gravity die. Casting.

Fuse Element::

This shall be made up of a round flexible braid between which is brazed fusing wire or wires which in turn is covered with a short acrylic resin tube. Proper capacity fuse element shall be provided to suit the transformer capacity.

Outdoor Airbreak Switch:

1. All the ferrous parts shall be of anti corrosive finish and hot dip galvanized
2. The moving insulator connection shall be done through laced flexible copper strips.
3. Flexible copper connections between the rotating shaft and the frame shall have a cross section of atleast $50mm^2$

4. AB Switches and Dropout fuses shall withstand the rated mechanical terminal load and electromagnetic forces without impairing their operational reliabilities or current carrying properties.

a) AB Switches dropout fuses inclusive of their operating mechanism, shall be such that they cannot come out of their open of closed position by gravity, wind pressure, and vibration.

b) AB Switches : and dropout fuses shall be capable of resisting in closed position the dynamic and thermic effects of the maximum possible sort circuit current.

The A B Switches shall strictly conform to IS 1818 as amended up to date

12.Earthing:

Earthing of structure and other components shall be carried out as per rules and regulations. Provided separate earthing for lightning arrestors. For detailed earthing specification refer specifications described under earthing.

13.Painting:

All steel work shall undergo a process of degreasing pickling in Acid, cold rinsing, phosphate, passivating and than sprayed with a high corrosion resistant red oxide primer. The finishing treatment shall be by application of Aluminum paint.

H.T & L.T CABLE

1.GENERAL:

H.V. and M.V. cables shall be suppled, laid, tested amd commissioned in accordance with drawings, specifications, relevant Indian Standards Specification and manufacturers name clearly written on the drums.

2.MATERIAL:

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H.V. CABLES:

H. V. Cables shall be aluminum conductor, XLPE double steel tape armored cable, conforming to IS : 692 – 1965 and suitable for underground use and in masonry trenches as shown on drawings.

M.V. CABLES:

M.V. Cables shall be PVC insulated aluminum conductor armored and unarmored cable conforming to IS 694 (Part II) 1964 M.V. Cables shall be suitable for underground use laid trenches, ducts and tunnels as shown on drawings.

H.V. and M.V. Cables shall be termite resistant. H.V. and M.V. Cables shall be manufactured by Siemens India Limited/ INCAB or approved equal.

JOINTS IN CABLES:

The Contractor shall take care to see that all the cables are approptioned to various locations in such a manner as to ensure that no straight joints in the cable run. If the straight joint in cable is unavailable due to any specified reasons prior permission, in writing shall be obtained from the Architect before the use of such straight joints in cable.

JOINTING BOXES FOR CABLES:

Cable jointing boxes shall be of appropriate size, suitable for paper / PVC insulated cables of particular voltage ratings, and shall be manufactured by Siemens India/ Indian Cable Company and approved make.

JOINTING OF CABLES:

All cable joints shall be made in suitable approved cable joint boxes and the filling in of compound shall be done in accordance with manufacturer's instructions and in and approved manner. All straight and T – joints shall be done in epoxy module boxes with TROPOLIN/M – Seal resin or approved equal. All the jointing accessories shall also be manufactured by INCAB Siemens Indian Limited or approved equal. All the terminal ends of conductors shall be heavily soldered upto at least 50 mm length.

All cables shall be joined colour to colour and tested for Insulation Resistance and continuity before jointing commences. The seals of cables must not be removed until preparations for jointing are completed. Joints shall be finished on the same day as commenced and sufficient protection from the weather shall be arranged. Joints shall be made by means of suitable solder for conductors, the conductors being firmly butted into the connection or thimbles for ferrul and the whole soldered with proper solder and soldering flux or resin.

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The conductors shall be efficiently insulated with high voltage insulating tape and use of separators of approved size and patterns. The shall be completely filled with epoxy compound being toped as necessary to ensure that the box is properly filled.

CABLE TERMINATION:

Cable termination shall be done in terminal cable box using cable glands and the cable ends sealed with sealing compound. The cable boxes of transformers shall be filled with bituminous compound manufactured by M/s. Siemens India Ltd. or INCAB

BONDING OF CABLES:

Where a cable enters any piece of apparatus. It shall be connected to the clamp and gland. The clamps must grip the armouring firmly the land or casing, so that in the event of ground movement no undue stress is passed on the cable conductors. The glands shall be either to the lead sheath by means of 'Pumping Joint' as on a cone of approved materials, , capable of being compressed into lead sheath. The gland or cone shall be capable of effecting a good electrical bond between both the armouring and lead of the cable, and the casing.

LAYING OF CABLES:

Skilled and experienced workers using adequate rollers to minimize stretching of the cable shall lay cables. The cable drums shall be placed on jacks before unwinding the cable. Great care shall be exercised in laying cables to avoid forming kinks. The drums shall be unrolled and cables run over wooden rollers in trenches at intervals not exceeding 2meters. Cables shall be laid at depth of 1500 mm and 750mm depth below ground level in the case of HV and MV cables respectively. A cushion of sand, not less than 80mm shall be provided both above and below the cable and joint boxes and other accessories. HV and MV Cables shall not be laid in the same trench and/or along side of water main. The cable shall be laid in excavation trench, 80 mm layer of sand shall be spread over the cable. The cable then shall be lifted and placed over the sand bed. The second layer of 80 mm sand then be spread over the cable. The relative position of the cables laid in the same trench be preserved and the cables shall not cross each other as far as possible. At the changes in direction in horizontal and vertical planes, the cable shall be bent smooth with a radius of bent not less than 12 times the diameter of cable. Minimum 3M long loop shall be provided at both sides of every straight joint and 5 meters at each end of the cable. Distinguishing marks shall be made on the cables ends for identification. Insulation tapes of appropriate voltage and in red, yellow and blue colours shall be wrapped just below the sockets for phase identifications.

PROTECTION OF CABLES:

The cable shall be protected by placing burnt bricks over the cables on the top layer of sand for the full length of underground cable. Where more than one cable is running in the same trench, the bricks shall cover all the cables and shall project a minimum of 80mm on either side if the cables.

Cables under road crossing and any surface subjected to heavy traffic, shall be protected by running them through hum pipes of suitable size.

CABLES INSIDE BUILDING:

Cables inside buildings shall be laid either in masonry trenches or carried on through, racks or brackets. Where cables run in ducts inside the buildings the cables shall be adequately clamped to angle iron brackets, secured to the wall, as directed and approved by the Architect. Where cables are suspended from ceilings they shall be carried over through or racks as directed and approved by the Architect. The supports shall be placed not more than 1.0 meter apart. All cables passing through walls shall run through stone ware pipes or hum pipes of adequate diameter recessed or exposed as directed. Cable running along walls shall be supported and clamped to saddles, or hangers rigidly anchored at close intervals. Clear space between parallel cables shall be equal to the diameter of the cable but not less than 50 mm. Where called for cable trenches shall be filled with fine sand. The Contractor shall ensure that hangers, brackets and other supporting arrangements for cables are placed in proper position at the time of building the walls, concreting slabs etc. cutting holes or opening in concrete may be carried out only with prior permission of the Architect.

EXCAVATIONS AND BACK FILL:

All excavations and back fill including timbering shoring and pumping required for the installation of the cables shall be carried out by the drawings and requirements laid down elsewhere. Trenches shall be dug true to line grades. Back fill for trenches shall be filled in layers not exceeding 150 mm. Each layer shall be properly rammed and consolidated before laying the next layer. The Contractor shall restore all surfaces, roadways, side walks, curbs, walls or other works cut by excavation to their original condition, satisfactory to the Architect.

MARKERS AND WARNING PLATES:

Approved CI cables markers shall be provided along the route of the cables at every 30 meter distance and at both ends of road crossing, indicating HV cables and MV cables as applicable. Special CI markers shall be provided at all buried cable joints indicating 'Electrical Cable Joints'. C.I. Plates engraving the size of cable and the place it serves shall be tied to the cable at regular intervals of 2 meters for easy identifying the cables.

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EARTHING

GENERAL

All the non-current metal parts of electrical installation shall be earthed properly. All metal conducts, trunking, cable sheaths, switchgear, distribution fuse boards, lighting and fittings and all other parts made of metal shall be bonded together and connected by means of specified earthing system. All earting conductors to and efficient with the relevant provision of Rules 33 and 61 of the Indian Electricity Rules 1956. and Indian Standard Specification IS : 3043 – 1966.

EARTHING CONDUCTORS:

All earthing conductors shall be of high conductivity copper or G.I and shall be protected against mechanical injury or corrosion.

SIZING OF EARTHING CONDUCTORS:

The cross sectional area of copper earthing conductor shall not be smaller than half that of the largest current carrying conductor subject to an upper limit of 80 / 125 sq.mm if the area of the largest current carrying conductor or bus bar exceeds 160 sq.mm the two or more earthing conductors shall be used in parallel, to provided at least half the cross sectional area of the current carrying conductor or bus bars. All fixtures, fans outlet boxes and junction boxes shall be earthed with G.I./ copper wire. All single phase metal clad switches and distribution boards shall be earthed with 4 mm dia bare copper/ G.I wire.

All 3 phase switches and distribution boards upto 60 amps rating shall be earthed with 2 nos. distinct and independent 4 mm dia bare copper/ G.I wires. All 3 phase switches and distribution boards upto 100 amps rating shall be earthed with 2 nos. distinct and independent 6 mm dia bare copper/G.I wires. All switches bus bar ducts and distribution boards of rating 200 amps and above shall be earthed with a minimum of 25 mm x 3 mm copper/ G.I tape. Transformer neutral shall be earthed with two separate earth, electrodes. The minimum size of copper strip for Transformer neutral earthing shall be 50 mm x 3 mm.

CONNECTION OF EARTHING CONDUCTORS:

Main earthing conductors shall be taken from the earth connections at the main switch boards to an earth electrode with which the connection is to be made. Sub-main earthing conductors shall run from the main switchboard to the sub – distribution boards.

Circuit earthing conductor shall run from the exposed metal of equipment and shall be connected to any point on the main earthing conductor, or its distribution boards or to an earth leakage circuit breaker. Metal conducts, cable sheathing and armoring shall be earthed at the ends adjacent to switchboards at which they originate, or otherwise at the commencement of the run by an earthing conductor in effective electrical contact with cable sheathing. Where equipment is connected by flexible cord, all exposed metal parts of the equipment shall be earthed by means of an earthing conductor enclosed with the current carrying conductors within the flexible cord. Switches, accessories, lighting fitting, etc.,

which are rigidly secure in effective electrical contact with a run of metallic conduct shall not be considered as a part of earthing conductor for earthing purpose, even though the run of metallic conduct is earthed.

PROHIBITED CONNECTIONS:

Neutral conductor, sprinkler pipes, or pipes conveying gas, water or inflammable liquid, structural steel work, metallic enclosure or cables and conductors, metallic conduits and lightning protection system conductors shall not be used as a means of earthing and installation or even as a link in an earthing system. The electrical resistance of metallic enclosures for cables and conductors measured between earth connection at the main switchboard and any other point on the completed installation shall be low enough to permit the passage of current necessary to operate fuse or circuit breakers and shall not exceed 1 ohms.

PROTECTION FROM CORROSION:

Connections between copper and galvanized equipment shall be made on vertical face and protected with paint and grease. Galvanized fixing clamps shall not be used for fixing conductors. Only copper fixing clamps shall be used for fixing earth conductors. When there is evidence that the soil is aggressive to copper, buried earthing conductors shall be protected by suitable serving and sheathing



EARTHING STATION

Plate Electrode Earthing :

Earthing electrode shall consist of a tinned copper plate not less than 600mm x 600mm x 3mm thick or 600 x 600 x 6mm G.I as called for in the drawing or as specified in Bill of Quantities. The plate electrode shall be buried as far as practicable below permanent moisture level but in any case not less than 3 meters below ground level.

Wherever possible earth electrodes shall be located as near the water tap, water drain or a down take pipe as possible. Earth electrodes shall not be installed in proximity to a metal fence. It shall be kept clear of the buildings foundations and in no case shall it be nearer than 2 meters from the outer face of the wall. The earth plate shall be set vertically and surrounded with 150 mm thick layer of charcoal dust and salt mixture. 20 mm GI pipe shall run from the top edge of the plate to the ground level. The top of the pipe shall be provided with funnel and a mesh for watering the earth through the pipe. The funnel over the GI pipe shall be housed in a masonry chamber, approximately 300 mm x 300 mm x 300 mm deep. The masonry chamber shall be provided with a cast iron cover resting over a G.I. frame embedded in masonry.

Pipe Electrode Earthing:

Earthing electrode shall consists of a G.I. pipe (class 'B') Indian Tube Company make or approved equal),not less than 40 mm dia and 5 meter long. G.I. Pipe electrode shall be cut tapered at the bottom and provided with holes of 12 mm dia drilled at 75 mm interval upto 2.5 meters length from bottom. The electrode shall buried vertically in the ground as far as practicable below permanent moisture level with its top not less than 200 mm below ground level. The electrode shall be in one piece and no joints shall be allowed in the electrode. Wherever possible earth electrodes shall be located as near water tap, water drain or down take pipe. Earth electrode shall not be located proximity to a metal fence. It shall be kept clear of the building foundation and in no case shall be nearer than 2 meters from the outer face of the wall.

The pipe earth electrode shall be kept vertically and surrounded with 150 mm thick layer of charcoal dust and salt mixture upto a height of 2.5 meters from the bottom. At the top of the electrode a funnel with a mesh shall be provided for watering the earth. The main earth conductors will be connected to the electrode just below the funnel, with proper terminal lugs and checks nuts. The funnel terminal lugs and check-nuts. The funnel over the GI pipe and earth connection housed in a masonry chamber, approximately 350 mm length x 30 mm wide and 300 mm deep. The masonry chamber shall be provided with a cast iron cover resting over a C.I frame embedded in masonry.

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EARTH CONNECTION:

All metal clad switches and other equipments carrying single phase current, shall be connected to earth by a single connection. All metal clad switches carrying medium voltage and high voltage shall be connected with earth by two separate and distinct connections. The earthing conductors inside the building whenever exposed shall be properly protected from mechanical injury by running the same G.I. pipe of adequate size.

Earthing conductors outside the building shall be laid 600 mm below the finished ground level.

The over lapping in copper strips at joints where required, shall be minimum 75 mm. The joints shall be riveted with copper reverts and breaxed in approved manner. Sweated lugs of adequate capacity and size shall be used for all termination of wires above 6 sq.mm. size and bare copper wire above 2.5 mm dia. Lugs shall be bolted to the equipment body to be earthed after the metal body is cleaned of paint and other oily substance and properly tinned.

EARTH RESISTANCE:

The earth resistivity of the sell where the earthing stations are located shall be submitted to the Architect before the earthing work started and get the approval of the Architect. If the earth resistance is too high and multiple electrode earthing does not give adequate low resistance to earth, then the soil resistance shall be reduced by adding sodium chloride, calcium chloride, sodium carbonate, copper sulphate, salt and soft coke or charcoal in suitable proportions as directed by the Architect.

RESISTANCE TO EARTH:

The resistance of each earth system shall not exceed 1.0 ohm in the case of M.V. system and 0.5 ohm in the case of H.V system.

TESTING

At the completion of the work, the entire installation shall be subject to following tests:

a). Wiring Continuity Test.
b). Insulation Resistance Test.
c). Earth Continuity Test.
d). Earth Resistivity Test.

Besides the above any other test specified by the Local Authority shall also be carried out.All tested and calibrated instruments for testing labour and materials and incidentals necessary to conduct the above tests shall be provided by the Contractor at his own cost.

TESTING OF WIRING:

All wiring systems shall be tested for continuity of circuits and earthing after wring is completed and before energizing.

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TECHNICAL SPECIFICATION

DIESEL GENERATING SET

TECHNICAL SPECIFICATION

Diesel Generating Set

DETAILED SPECIFICATIONS FOR 380 KVA DIESEL GENERATOR SET.

1. DIESEL ENGINE

Type	: 4 strokes,
No: of Cylinders	: 6 cylinders
Cooling	: water cooled and turbo charged, Diesel Engine
Capacity	: Minimum 604 BHP @ 1500 RPM under NTP conditions

Engine designed to run continuously, confirming to BS: 5514/ DIN-6271/IS 10002/ ISO – 3046. With an overload capacity of 10% for one hour in any 12 hours continuous operation.

2. The engine shall be complete with the following accessories:

a) Heat Exchanger

b) Corrosion inhibitor coolant

c) Paper element filters for fuel, lube oil and by-pass

d) Flywheel to single bearing alternator with housing

.

e) Dry type air cleaners and vacuum indicators

f) PT Self Adjusting direct fuel injection system

g) Silencer

h) Stainless steel exhaust flexible bellows

i) Electronic Control panel with digital governor suitable for synchronization.

j) Electric Starter

k) Battery charging alternator

l) Electronic Instrument panel (Displaying the following):

a. Battery Voltage

b. Coolant Water Temperature

c. Lubricating Oil Pressure

d. Engine Speed

e. Engine Hours

m)	Safety Control	: High water temperature(HWT)
	(Trip & Indication for)	: Low lube oil pressure (LLOP)
		: Over speed stop

n) Air inlet system, Charging system, Control system, Exhaust system.

3. Fuel consumption: At 75% of rated load the Bench Mark - Fuel Consumption is 60.80 litres /hr. The fuel consumption indicated by the supplier shall be guaranteed for first 600 hours of operation / first one year whichever is earlier. Suppliers offering equipment with higher fuel consumption shall be loaded for extra cost of fuel. For increase or decrease of every litre per hour of specified fuel consumption, cost of the additional fuel would be loaded (added/ reduced) from quoted DG Set price as per loading factor given later in this document to arrive at final tender value.

4. Efficiency: 90% or higher. Performance Guarantee Certificate (Specifically indicated from Authorized agency for Certification) to be provided by the supplier for Type approval and conformity of production testing of DG set.

5. ALTERNATOR :

Alternator confirming to BS:5000/ IS:4722 with standard design with IP 23 Protection, suitably rated at 320 KW / 380 KVA at 0.8pf, 415 Volts, 3 phase, 4 Wires, 50 Hz., 1500 RPM, self excited (brushless excitation)and self regulated, Band of Voltage Regulation +/-1.5% of rated voltage (from no load to full load) and Class "H" Insulation. Alternator should be mounted on a common single base frame and coupled directly to the engine..

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6. BASE FRAME:

Sturdy, fabricated / welded construction, made out of high quality Steel section suitable for mounting the engine and alternator. The base frame shall be suitably designed to simplify transportation, handling, slinging, E&C. Shall have provision for levelling adjustments, as required during installation.

7. AMF CONTROL PANEL:

Cubicle type, floor mounting Control Panel, with dust and vermin proof for accommodating the following:

a) Suitable Moulded Case Circuit Breaker, Ammeter with Selector switch

b) Voltmeter with Selector Switch, 500 Volts

c) Frequency Meter

d) KWH Meter

e) KW Meter

f) Current Transformers

g) Indicating Lamps for Supply "ON" & Load "ON"

h) Instrument fuses

8. FUEL TANK: Fuel Tank should be located nearest to the DG set enclosure to ensure free flow of Diesel.

9. BATTERY: Suitable Dry type Batteries of Standard Make with leads and Terminals shall be part of the equipment. The pack shall be suitably positioned and modular withdraw able to ease of servicing. The Battery pack shall be minimum 180 AH, Lower capacity battery pack will be loaded to equipment cost.

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10. NOISE LEVEL OUTSIDE the enclosure: 75 dbA at a distance of 1metre under free field condition and adhere to the guide lines of MOEF (Ministry of Environment and Forest) and CPCB (Central Pollution and Control Board) norms.

11. Provision to log essential parameters at 1minutes interval shall be provided along with Optional Data logger, to be quoted separately.

12. Desirable maximum ambient temperature without derating: Base level 480C but not less than 450C, considering peak summer temperature. *(For every degree increase advantage point to be given as per derating specified by supplier)*

13: Lube oil System: Complete with cooling system, oil temperature monitor, filtration system up to 20 microns, level indicator and fume disposal system to be provided. Fuel system with primary and secondary fuel filter, fuel pump to be provided.

14. The Supplier should attend to the Breakdowns within 24 hours of reporting the fault and put the DG set back in Operation. The supplier should provide the auto-recording Telephone number and any other contact number available for reporting the breakdown.

15. Training to the Staff of Nagpur Municipal Corporation involved in Operation & Maintenance of DG set to be imparted at site.

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10.0 PLUMBING WORK

SECTION 1- INTRODUCTION

1.1 PLUMBING SPECIFICATIONS

SECTION A: Standards and Specifications

IS Codes and Reference Standards unless otherwise specified.

The specified reference standards are INDIAN STANDARD CODES (BIS) unless otherwise specified and are intended to establish the minimum quality of materials and workmanship required for the works.

Reference standards published in other countries may also be acceptable providing that the Contractor furnishes sufficient data for the Owner's Consultant to determineif the quality of materials and workmanship at least equals or exceeds all tests prescribed by the specified reference Indian Standards codes.

Such other reference standards published by the following will be considered;

BSI: British Standards Institute

AFNOR: Association Franchise de Normalization

(French Standards Institute)

DIN: Deutsche Industries Norman (German Standards)

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ANSI: American National Standards Institute

ASTM: American Society for Testing and Materials

UPC-I: Uniform plumbing code of India.

Standards, specifications, associations, and regulatory bodies are generally referred to throughout the specifications by their

Abbreviated designations. The materials workmanship shall be in accordance with the requirement of the appropriate I.S code

Wherever applicable together with any building regulations or bye-laws governing the works.

SECTION B: Technical Specifications

Water Supply Piping – CPVC Pipe & Fittings

ASTM D2 846 – IS 15778 cPVC pipes and fittings SDR 11 upto Size 50mm and

ASTM F441 cPVC pipes and fittings Sch,.80 for Higher than 50mm , solvent welded pipes and fittings of approved makes.

Drainage Piping – Soil, Waste and Vent

U-PVC SWR type B pipes confirming to IS13592-1992 and fittings IS14735:1999for (SWR) of approved make.

Ball Valves –

PN 10-25 rating confirming to BS 5154 standards with all required accessories

Strainer –

Y- Type Strainers of approved make confirming to BS-2080 with screen of size 20 made of SS 304, blow off with a plug and end flanges confirming to :BS 4504.

Butterfly Valve –

C.I. butterfly valves as per BS 5155 (PN 16) slim seal standard lever operated type with required flanges, nuts, bolts etc.

Float Valves –

Mechanical type polyethylene floats (spherical) for float valves confirming to IS 9762, with threaded rods of brass, inlet connections of specified sizes, bolts, nuts washers, gaskets etc

Water Meter –

Mechanically measuring type water meter of approved make confirming to IS 779 (PN6 rating unless otherwise mentioned) with inlet connections of specified sizes, with ferrules, unions, washers, isolation valves, gaskets etc

RCC Pipes -

ISI standard R.C.C. pipes (IS-458/1988)

Pumps & Allied Items–

Pumps shall confirm to IS 5120-1977, Pressure Gauges to confirm to EN 837-1, EN 837-3 and EN 887,

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Sanitary Ware and CP Fittings –

Sanitary ware shall confirm to the IS 2556 & plastic seat covers to confirm IS 2548: Part 1 & 2, Waste Coupling to confirm IS 3311, Sink to confirm IS 13983, CP Fittings to confirm IS 8931

Cast Iron Pipe & Fittings –

Cast Iron Pipes & Fittings conforming to ISO 6594 and IS 15905

SECTION 2- CPVC PIPES AND FITTINGS

2.01 Materials:

2.1 Pipes

A) CPVC Pipes - ASTM D2 846 – IS 15778 cPVC pipes and fittings SDR 11 upto Size 50mm and ASTM F441 cPVC pipes and fittings Sch,.80 for Higher than 50mm , solvent welded pipes and fittings of approved makes.
They shall be of the nominal diameter (nominal bore) specified on the description of the item. The sockets shall be designated by the respective nominal bores of the pipes for which they are intended.

SDR 11 DIMENSIONAL DETAILS

Nominal Size	Outside Diameter in MM		Wall Thickness in MM	
Inch	Average	Tolerance	Minimum	Tolerance
1/2	0.625 (15.9)	± 0.003 (± 0.08)	0.068 (1.73)	+0.020 (+0.51)
3/4	0.875 (22.2)	± 0.003 (± 0.08)	0.080 (2.03)	+0.020 (+0.51)
1	1.125 (28.6)	± 0.003 (± 0.08)	0.102 (2.59)	+0.020 (+0.51)

1-1/4	1.375 (34.9)	± 0.003 (± 0.08)	0.125 (3.18)	+0.020 (+0.51)
1-1/2	1.625 (41.3)	± 0.004 (± 0.10)	0.148 (3.76)	+0.020 (+0.51)
2	2.125 (54.0)	± 0.004 (± 0.10)	0.193 (4.90)	+0.023 (+0.58)

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SDR 11 PRESSURE RATING

Nominal Size	Pressure Rating PSI	
Inch	73.4 F (23° C)	180 F (82° C)
1/2	400	100
3/4	400	100
1	400	100
1-1/4	400	100
1-1/2	400	100
2	400	100

SDR 11 PRESSURE RATING

Nominal Size	Pressure Rating PSI	
Inch	73.4 F (23° C)	180 F (82° C)
1/2	400	100
3/4	400	100
1	400	100

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Pipe Fittings:

The fittings shall be of perfect size and should be as per CTS (Copper tube size) The fitting should be as per the specifications of ASTMD 2846. Manufacturer should have NSF/ANSI61 & IAPMO certification.

Jointing material:

All purpose cement solvents should not be used. Solvent cement manufactured as per ASTM F – 493 and as per NSF approved only shall be used.

Table of Usage of CPVC Solvent Cement

Dia of Pipe in inch (mm)	1/2" (12.7)	3/4" (19.05)	1" (25.4)	1.1/4" (31.75)	1.1/2" (38.1)	2" (50.8)
Appx. Nos of joints Which Can be made per ltr. of Solvent Cement	400	200	153	110	83	42

RECOMMENED SUPPORT SPACING (IN FEET)

Nom. Pipe Size		Temperature Degree C				
(in)	(mm)	15.5	26.6	37.7	48.8	60
½	15	4 ½	4 ½	4	2 ½	2 ½
¾	20	5	4 ½	4	2 ½	2 ½
1	25	5 ½	5	4 ½	3	2 ½
1 ¼	32	5 ½	5 ½	5	3	3
1 ½	40	6	5 ½	5	3 ½	3

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Nom. Pipe Size		Temperature Degree C				
2	50	6	5 ½	5	3 ½	3
2 ½	63	6 ½	6	5 ½	4	3
3	75	7	7	6	4	3 ½
4	100		7	6 ½	4 ½	4

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Pipe Fittings:

The fittings shall be of perfect size and should be as per ITS (Iron tube size) the fitting should be as per the specifications of ASTM D 2467.

Jointing material:

All purpose cement solvents should not be used. Solvent cement manufactured as per ASTM D – 2564 only shall be used.

Pipe Fittings:

The fittings shall be of perfect size and should be as per ITS (Iron tube size) the fitting should be as per the specifications of ASTM D 2467. Size rage from 15 to 300 mm dia.

Jointing material:

All purpose cement solvents should not be used. Solvent cement manufactured as per ASTM D – 2564 only shall be used.

2.2 Earth Work Excavation and Preparation of Trench for External Works.

The galvanized iron pipes and fittings shall be laid in excavated trenches. The width and depths of the trenches for different diameter of the pipes shall be as in the table given below:

Dia of Pipe	Width of Trench	Depth of Trench
15mm to 50 mm	30 cm	60 cm
65mm to 100 mm	45 cm	75 cm

At joints the trench width shall be widened where necessary. The work of excavation and refilling shall be done to line and gradient in accordance with specifications for earthwork in trenches as described elsewhere.

When excavation is done in rock the bottom shall be excavated to extra depth of 10 cm. to permit the pipes to be laid on a cushion of sand of minimum 10 cm thick.

2.3 Marking:

The Flow guard pipes and fittings are available in 15mm to 50mm (copper tube size) size. They are available in lengths 10Ft, 20Ft straight and in coil form. For diameter above 50mm upto 150mm (iron pipe sizes) Lead free PVC pipes (ASTM schedule 40) shall be used.

Tubular and fittings shall be suitably packed protected from damages and marked with the following details:

1. Manufacturers name or trademark.
2. Size, Designation.

Pipes and fittings shall also be marked with ASTMD certification mark.

2.4 Checking the Quality of Pipes before using on Works:

The pipes and fittings shall be inspected at site before use and ascertain that they confirm to the specification above. Thickness of pipe wall and weight of pipe for one meter length of pipe shall be necessarily checked to ensure the size and standard before acceptance of the pipe for use in the building. The wall thickness of pipe has to be checked accordingly to second decimal of a millimeter using a screw gauge. The defective pipes shall be rejected. While curing, laying and jointing for internal and external works, where the pipes have to be cut, the ends shall be carefully filled out so that no obstruction to bore is offered.

2.5 Jointing of CPVC/ PVC Pipes:

The pipes and fittings shall be cleaned and cleared of all foreign matter before being laid. Care should be taken that all pipes and fittings are properly jointed so as to make the joints completely water tight and pipes are kept at all time free from dust and dirt during fixing. Burr from the joint shall be removed while joining the pipes. After laying the open ends of the pipes shall be temporarily plugged to prevent access of water, soil or any other foreign matter. The tubing should make contact with the socket wall 1/3 to 2/3 of the way into the fitting socket. In case of PVC pipes solvent cement conforming to ASTM D –2564 shall be used to avoid the joint failure. Avoid too much of cement coat otherwise it will clog the water. In case of cement joint allow to set for 10 to 20 mins.

2.6 Laying and fixing:

Where pipes have to be joined shall be carefully filled out so that no obstruction to bore is offered. For internal work all pipes and fittings shall be fixed truly vertical and horizontal, either by means of standard pattern holder bat clamps keeping the pipes 1/2" 12 mm clear of

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the wall everywhere or concealed as directed. For external work CPVC pipes and fittings shall be laid in trenches. The width of trench shall be minimum width required for working. The pipes laid underground shall be not less than 60 cm from the finished ground level.

2.7 Testing:

Before using pipes, they shall be tested to a hydrostatic pressure of 8.0 kg / sq.cm. Pressure shall be maintained for at least eight hours without appreciable drop in pressure. In addition to the sectional testing of water supply pipes, the contractor shall test the whole of the installation to the entire satisfaction of the Authority's Engineer / PMC. He shall rectify any leakages, failure of fittings or valves.

2.7.1 Mode of Measurement:

CPVC Pipes above ground shall be measured along the centre line of the pipes and fittings. The quoted rate for respective item shall be per Rmt and shall include the following:

a) Cost of respective pipes and specials.

b) Laying, fixing and jointing with necessary clamps.

c) Cutting holes and chases in walls, floors, etc. and making good the same.

d) All supporting arrangements, brackets etc.

e) Testing and making good the defects, if any, CPVC pipes below ground shall be measured as stated elsewhere in the specification.

2.7.2 Water Fittings (Tapes, Stopcocks etc.):

All water fittings shall be of approved quality and design and shall generally comply with latest IS Specifications. The fittings and joints shall be tested for 8.0 Kg/ Sq.cm. Defective fittings and the joints shall be repaired or redone replaced as directed.

2.8 Provision of Anchor and Thrust Blocks in Pipe Lines:

Anchor and thrust blocks for external water pipes shall be provided. In case of PVC pipes laid inside buildings subjected to high pressure suitable MS anchors grouted in walls shall be provided at all bends and free ends.

2.9 Hydraulic Testing for Internal Works:

Hydrostatic testing for internal work including pumped rising mains shall be done to a pressure rating of 4.0 kg/cm^2.

2.10 Commissioning the System and Disinfection of Pipes and Fittings:

After completion of the entire internal plumbing system the overhead tank shall be filled with water mixed with decanted solution of bleaching powder to get concentration of 50 ppm. This water shall be filled to the entire system and kept for a contact period of 12 hours. Disinfection shall be done to the satisfaction of Authority's Engineer / PMC and then only the work shall be taken over. Care shall be taken to see that this water is not used for drinking and other purposes. The system shall be flushed with potable water before commissioning.

2.11 Back filling the pipe trench:

Back filling of the trenches shall be done as described elsewhere.

2.12 Restoration of Road Surfaces: Pavements etc:

Restoration shall be done as described elsewhere.

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SECTION 3- UPVC PIPES & FITTINGS

3.1 Materials:

Unplasticised PVC (Rigid PVC) Pipes and fittings shall be manufactured according to IS 4985-2000. They shall be of the nominal diameter (nominal bore) specified on the description of the item.

uPVC Pipes are manufactured from 20mm to 450mm Dia and all pressure rating classes 2.5, 4, 6, 8, 10, 12.5 kgft cm2

3.2 Pipe Fittings:
The fittings shall be of IS 4985-2000 complying with all the appropriate requirements as specified. The fittings shall be designated by the respective nominal bores of the pipes for which they are intended.

3.3 Jointing of UPVC Pipes:
The pipes shall be cleaned and cleared of all foreign matter before being laid. In jointing the pipes, pipe shall be cut at right angles to the pipe axis These pipes are well equipped with threaded joint or easy-fit joints fro wellguard casing.

3.4 Testing:
Technical Rules for Potable Water Installations DIN 1988 all pipe lines shall be hydraulically pressure tested to 1.5 times of the operating pressure. The preliminary test a test pressure of 1.5 times of the highest possible operating pressure shall be produced. This test pressure shall be re-established twice within 30 minutes within the interval of 10 minutes. After a test time of further 30 minutes the test pressure shall not drop more than 0.6 bar and no leakages shall appeared. The preliminary test shall be followed by principal test. Test time is 2 hours. On doing the same the test pressure shall not drop more than 0.2 bar that of preliminary test pressure. No leakages must appear at any point of the tested installation.

3.5 Concealed work in trenches or excavated earth
Pipes are laid in trenches or in excavated earth dug to a depth of 40 cm to 90 cm depending on the size of the pipe of 40 mm to 160 mm respectively. It is to be noted that while laying of pipes in trenches or excavated earth foreign materials such as rubble, sand or mud should never be present in the pipes while joining with sockets or bends. In the event of connecting the pipes with gate valves a pit box or junction box should be created. The pipes are to be laid evenly on the earth by using wooden clamps as a precaution before filling is done.

3.7 Hydrostatic testing for internal works:
Hydrostatic testing for internal work including pumped rising mains shall be done to a pressure rating of 1.5 times of the operating pressure.

INTERNAL DRAINAGE SYSTEMS

1.0 Scope of Work

1.1 The scope of work shall cover:

i) Internal Soil and waste drainage piping including:

a) Connection to soil, waste and vent stacks.

b) Connections to sanitary ware

c) Waste connections to kitchen, other appliances, floor traps etc.

2.0 Standards

2.1 All materials and the installation shall meet latest of the following standards:

1)	IS : 3989	Centrifugally cast iron pipes
2)	IS : 6163	Centrifugally cast low-pressure iron pipes
3)	IS : 1536	Centrifugally cast iron pressure pipes
4)	IS : 782	Pig lead.
5)	IS : 1726	CI manhole frames & covers.
6)	IS : 5329	Code of Practice for Sanitary pipe work.
7)	IS : 3114	Code of practice for laying of cast iron pipes
8)	IS : 1239	Steel tubes & tubular
9)	IS : 1879	Malleable iron GI fittings
10)	IS : 13592	PVC SWR Pipes & Fittings

3.0 Materials

3.1 General

3.1.1 All materials shall be new and have the best quality conforming to the specifications. Where different makes are specified, the choice of make shall rest with the consultants.

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3.1.2 All samples of materials with necessary catalogues and performance data shall be submitted and got approved before use on the work. Approved samples of all materials shall be neatly displayed on a board and such a display board of samples shall always be in exhibition in the sample room of the construction office of the Authority's Engineer / PMC. Such a display shall be used for the day-to-day checking of the materials on site.

In cases where the materials are supplied by the clients, all such materials shall be inspected and received in good condition and thereafter, it will be totally under the safe custody of the tenderer/contractor till they are handed over satisfactorily after installation, testing and commissioning.

SECTION 4- PVC PIPES AND FITTINGS

4.1 PVC SWR Pipes & fitting:

U-PVC SWR type B pipes confirming to IS13592-1992 and fittings IS14735:1999for (SWR) of approved make.

PVC SWR Pipe fittings are to be use for the internal drainage in sunken toilets, Shafts / Verticals, Suspended Piping in ceiling & per **IS 13592,**

Soil, Waste, Anti/Vent, R.W. Lines of Type-B

(With rubber washer joints in shaft & solvent cement joints in toilets)

4.2 Specification for SWP PVC Pipes :

1) Internal drainage piping in building –

Materials -

Type "B" pipes For vent and Rain water lines

Type "B" pipes For soil and waste lines

Wall Thickness of Type-A & Type-B pipes

Diameter Type 'B

3"	3.2 - 3.8 mm
4"	3.2 - 3.8 mm
6"	4.0 - 4.6 mm

4.3 Traps & Seals

4.3.1 All traps shall be self-cleaning and the material and the seal depth shall be as specified below wherever the traps are not integral with the appliances or ware.

Appliance or ware	Trap		
	Material	Type	Seal depth (mm)
Lavatory/Wash basin [1]	CP brass/PVC	P	50
Sinks [1]	CP brass//PVC	P	50
Floor drain	Cast Iron built-in/PVC	P or S	50
Kitchen Floor drain or fabricated drain boxes	Fabricated Stainless Steel /PVC (built-in)	P	50
Urinals [1]	CP brass/PVC	P	50

Appliance or ware	Trap		
	Material	Type	Seal depth (mm)
Fan Coil Units	Galvanized steel	P	25
Air Handling Units	Galvanized Steel//PVC	P	50
(All P-traps shall have cleaning eye or other cleaning facility)			
Roof Drain outlet	Cast iron	-	-
Plant room floor drains	Cast iron/ fabricated steel	-	-

4.4 Material:

PVC pipes and fittings shall conform to IS - 13592, (SWR Type) fitting to IS 14735 and rubber rings to IS 5382.

4.5 Laying:

Exposed as the case may be as shown on the drawings, the minimum thickness of the fittings shall be of 3.2 mm, the fitting shall be injection molded type with rubber ring socket. The exposed pipes and fittings shall be capable of withstanding sun-rays (Ultra-violet radiation) without having de-colorization and brittleness.

4.6 Jointing:

The jointing of the pipes to the fittings shall be done as per the manufacturer's instructions / recommendation. The rubber ring socket fittings and pipes shall be jointed as follows:

Clean the outside of the pipes spigot end and the inside of the ceiling groove of the fitting. Apply the lubricant uniformly to the spigot end, sealing ring and pass the spigot end into the socket containing sealing ring until fully home. Mark the position of the socket edge with pencil or felt open on the pipe, then withdraw the pipe from the socket by approximately 10 mm. to make the pipe fully fitted to the fitting. The horizontal pipes on the wall shall be fixed with M.S. fabricated clamps with necessary provisions to take care the expansion and contraction in PVC pipes. The spacing of the clamps shall be at the intervals of 1.5 meter to 2 meter depending on the requirement of the supporting arrangements.

4.7 Pipe Hangers & Brackets:

Sturdy hangers, brackets and saddles of approved design shall be installed to support all pipe lengths which are not embedded over their entire run. The hangers and brackets shall be fabricated from suitable MS rolled section. The hangers and brackets shall be of adjustable heights and prime coated with red oxide primer. Clamps, collars and saddles to hold pipe shall be designed to carry the weight of pipes safely. All pipes and fittings shall be secured near every joint and half way through every pipe length unless otherwise specified.

4.8 Testing:

PVC pipes and fittings shall be tested for three meters of water head the openings of the pipes shall be sealed for the section to be tested. The water pressure shall be maintained for maximum of one hour. The Authority's Engineer / PMC shall examine carefully all the joints for leakage.

*****

SECTION 5 – HUME PIPE

5.1 Hume Pipe & Laying:

The pipes shall be with or without reinforcement as required and of the class as specified. These shall confirm to IS: 458. The reinforced cement concrete pipes shall be manufactured by centrifugal (or spun) process while un-reinforced cement concrete pipes by spun or pressure process. All pipes shall be true to shape, straight, perfectly sound and free from cracks and flaws, the external and internal surface of the pipes shall be smooth and hard. The pipes shall be free from defects resulting from imperfect grading of aggregate mixing or molding. The un-reinforced pipes (non pressure pipes) shall withstand a test pressure equivalent to 0.7 kg/cm2 (7 m head) of water. Concrete used for the manufacture of un-

reinforced and reinforced concrete pipes and collars shall not be leaner than 1:2:4 (1 cement: 2 coarse sand: 4 graded stone) aggregate should not exceed one third of the thickness of the pipe or 20mm whichever is smaller. The reinforcement in the reinforced concrete pipes shall extend throughout the length of the pipe. The circumferential and longitudinal reinforcements shall be adequate to withstand the specified hydrostatic pressure and further bending stresses due to the weight of water when running full across a span equal to the length of pipe plus three times water its own weight. The minimum cover for reinforcement of spun pipes and for all other pipes shall be as given below:

Pipes thickness	Spun Pipes	Pipes other than Spun Pipe
Less than 30mm	9	12
30 mm to 74 mm	12	18
75 mm and over	18	18

Where the pipe shall be bedded directly on soil, the bed shall be suitably rounded to let the lower part of the pipe the cost for this operation being included in the rate for laying the pipe.

Loading, transporting and unloading of concrete pipes shall be done with care. Handling shall be as to avoid impact, gradual unloading by inclined plane or by chain block is recommended. All pipe sections and connections shall be inspected carefully before being laid.

Broken or defective pipes or connections shall not be used. Mechanical appliances may be used pipes shall be laid true to the line and grade as specified laying of pipe shall proceed upgrade of a slope.

If the pipes have spigot and socket joints, the socket ends shall face up-stream. In the case of pipes with joints to be made with loose collars, the collars shall be slipped on before the next pipe is laid.

Adequate and proper expansion joints shall be provided where directed. In case where the foundation conditions are unusual such as in the proximity of trees or holes under existing or proposed tracks, manholes etc. the pipe shall be encased all round in 15cm thick cement

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concrete 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 40mm nominal size) or compacted sand or gravel.

In case where the natural foundation is inadequate the pipes shall be laid either in concrete or cradle supported on proper foundation or on any other suitably designed structure. If a concrete cradle bedding is used the depth of concrete below the bottom of the pipe shall be at least 1.4 times of the internal diameter of the pipe subject to a minimum of 10cm and a maximum of 30cm. The concrete shall extend up to the sides of the pipes at least to a distance of 1/4th of the outside diameter for pipes 300cm and over in diameter. The pipe shall be laid in this concrete bedding before the concrete has set. Pipes laid in trenches in earth shall be bedded evenly and firmly and as far up the trenches of the pipes as to safely transit the load expected from, the backfill through the pipe to the bed. This shall be done either by excavating the bottom of the trench to fit the curve of the pipe or by compacting the earth under the curve of the pipe to form an even bed.

Necessary provision shall be made for joint wherever required, when the pipe is laid in a trench in rock, hard clay, shale or other hard material the space below the pipe shall be excavated and replaced with a bedding in concrete & the pipe be laid directly on such hard material.

When the pipes are laid completely above the ground the foundations shall be made even and sufficiently compacted to support the pipeline without any material settlement.

Alternatively the pipeline shall be supported on rigid foundations at intervals. Suitable arrangements shall be made to retain the pipeline in the proper alignment such as by shaping the top of the supports to fit the lower part of the pipe.

The distance between supports shall in no case exceed the length of the pipe. The pipe shall be supported as far as possible close to the joints. In no case shall the joint come in the centre of the span.

Care shall be taken to see than super imposed loads greater than the total load equivalent to the weight of the pipe when running full shall not be permitted. Suitably designed anchor blocks at change of directions and grades for pressure lines shall be provided where required.

5.2 Jointing of pipes:

Collar shall be spaced symmetrically over the two pipes and the space between collar and pipe filled with cement mortar 1:1 thoroughly rammed with caulking tools. The joint shall be finished with a fillet sloping at 450. Joints shall be protected and cured for 10 days. If specified in the item specification, wedge shaped groove in the end of the pipe, shall be

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filled with a special bituminous plastic compound with bitumen soaked spun yarn. The collar shall then be slipped over the end of pipe and next pipe butters well against the plastic compound through suitable appliance so as to compress the plastic compound in the grooves. Care being taken not to disturb co-centricity and level of the pipes.

*****

SECTION 6- DOUBLE WALL CORRUGATED HDPE PIPES

6.1 Material:

SN 4 Nu- Drain Upvc pipes or of equivalent make, manufacture as per EN 13476 or equivalent as per I.S.15328 with fittings, for non-pressure underground drainage application, shall be extruded and profiled from machinery to give uniformly profiled external surface and smooth internal surface. The pipe shall be produced by a continuous thermoplastic co-extrusion process having specially designed screws through die head that produces independent dual layered tubing.

The pipe shall be inert to most of the chemicals and gases and any bio-organic corrosion due to sulphides and sulphuric acids shall be ruled out.

7.2 Jointing of pipes:

Rubber ring which will act as a gasket shall be used to make joint firm and shall water and dust ingression enhancing joint integrity.

7.3 Laying of Pipes:

Bedding & Backfill: The bedding soil shall be free from stones within the breadth of the pipe trench. On the trench bottom, a 10-15 cm thick bedding layer is prepared and well well compacted. The bedding shall be at least 20 cm wider than the pipe outside diameter. For installation in soft or wet soil, a geo-textile is placed under the bedding.

Primary Backfill: The primary backfill material shall be a friction soil or macadam. Backfilling shall be made over the whole width of trench. Compaction of the backfill material shall be made in layers of 15-30 cm. The final layer of the primary backfill shall extend 30 cm above the pipe crown. No compaction is to be done directly above the pipe until the backfill has reached 30 cm above the pipe crown.

Final Backfill: the final backfill is done with regard to the native soil & external loads (traffic). When deemed necessary, the compaction is carried out in several layers. The final backfill material must, however, be free from stones.

SECTION 7- G I PIPES AND FITTINGS:

7.1 Materials:

The pipes shall be galvanised mild steel welded pipes and seamless, screwed and socketed tubes conforming to the requirements of IS 1239-1990. They shall be of the nominal diameter (nominal bore) specified on the description of the item. The sockets shall be designated by the respective nominal bores of the pipes for which they are intended.

The pipes and sockets shall be cleanly finished, well galvanised in and out and free from cracks. Surface flaws, laminations, and other defects. All screw threads shall be clean and well cut. The ends shall be cut cleanly and square with the axis of the tube.

7.2 Pipe Fittings:

The fittings shall be of malleable cast iron or mild steel tubes complying with all the appropriate requirements as specified. The fittings shall be designated by the respective nominal bores of the pipes for which they are intended.

The fittings shall have screw threads at the ends confirming to the requirement of IS - 554-85 Female threads on fittings shall be parallel and male threads (except on running nipples and collars of unions) shall be taper.

7.3 Earth Work Excavation and Preparation of Trench for External Works.

The galvanised iron pipes and fittings shall be laid in excavated trenches. The width and depths of the trenches for different diameter of the pipes shall be as in the table given below:

Dia of Pipe	Width of Trench	Depth of Trench
15mm to 50 mm	30 cm	60 cm
65mm to 100 mm	45 cm	75 cm

At joints the trench width shall be widened where necessary. The work of excavation and refilling shall be done to line and gradient in accordance with specifications for earthwork in trenches as described in paras.

When excavation is done in rock the bottom shall be excavated to extra depth of 10 cms to permit the pipes to be laid on a cushion of sand of minimum 10 cm thick.

7.4 Marking:

The different classes of tubes shall be distinguished by colour bands which shall be as follows :

A. Light Tubes - Yellow

B. Medium Tubes - Blue

C. Heavy tubes - Red.

Tubulars and fittings shall be suitably packed and threads protected from damages and marked with the following details:

1. Manufacturers name or trade mark.

2. Size, Designation.

Pipes and fittings shall also be marked with ISI certification mark.

7.5 Checking the Quality of Pipes before using on Works:

The pipes and fittings shall be inspected at site before use of ascertain that they confirm to the specification given in para above. Thickness of pipe wall and weight of pipe for one meter length of pipe shall be necessarily checked to ensure the appropriate class of pipe (medium class / heavy class) before acceptance of the pipe for use in the building. The wall thickness of pipe has to be checked accordingly to second decimal of a millimeter using a screw gauge. The defective pipes shall be rejected. While curing, laying and jointing for internal and external works, where the pipes have to be cut or rethreaded, the ends shall be carefully filled out so that no obstruction to bore is offered. The requirements of IS 554 - 1985 with pipe dies and taps be observed carefully in such a manner as will not result in slackness of joints when the two pieces are screwed together. The taps and dies shall be used only for straightening screw threads which have become bent or damaged and shall not be used for turning of the threads so as to make them slack, as the later procedure may not result in a water tight joint. The screw threads of pipes and fittings shall be protected from damage until they are fitted.

7.6 Jointing of GI Pipes:

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The pipes shall be cleaned and cleared of all foreign matter before being laid. In jointing the pipes, the inside of the socket and the screw end of the pipes shall be oiled and rubbed over with white lead and a few turns of spun yarn wrapped round the screwed end of the pipe. The end shall then be screwed in the socket, tee etc., with the pipe trench. Care should be taken that all pipes and fittings are properly jointed so as to make the joints completely water tight and pipes are kept at all time free from dust and dirt during fixing. Burr from the joint shall be removed after screwing. After laying the open ends of the pipes shall be temporarily plugged to prevent access of water, soil or any other foreign matter. Any threads exposed after jointing shall be painted or in the case of underground pipes thickly coat of approved anticorrosive paint be applied to prevent corrosion.

7.7 Laying for External Works:

7.7.1 The pipes shall be painted with two coats of anticorrosive bitumastic paint of approved quality. The pipes shall be laid and jointed on a layer of 7.5 cms sand and filled upto 15 cms above the pipes when laid in soil containing sulphates & chlorides. In case of sandy soil not containing sulphates and chlorides provision of layer of sand is not required. The remaining portion of the trench shall then be back filled with excavated earth as described. The surplus earth shall be disposed off as directed.

7.7.2 When GI pipes are laid below ground level they shall not be laid parallel and close to electrical cable. Using GI water pipes for earthing of electrical wiring shall not be done.

7.7.3 Protection Against Aggressive Soils:

In case soil containing high sulphates and chlorides and peaty matter special precaution shall be taken to prevent corrosion as directed by Authority's Engineer / PMC.

7.7.4 Vertical and Horizontal separation between sewer and GI pipeline.

Care shall be taken to lay the GI water mains always above the sewer line. The minimum horizontal and vertical clearance between sewer line and water line shall be 500mm. Joints shall be avoided in the water pipe and sewer pipe at the crossing of sewer line and water line if the crossing is perpendicular or angular to sewer line. Concrete encasing with 1:2:4 concrete be done for 1 M length over sewer line in such case.

7.7.5 Laying Service Pipes:

Service pipes of less than 50mm bore may be connected to cast iron pipe mains by means of right angled screw down ferrule of non - ferrous metal conforming to IS 2592 latest but the ferrule itself shall not be more than 25mm bore. Ferrule of 20 mm bore and above shall not

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be used in GI mains of less than 100 mm bore. The CI main is drilled tapped and the ferrule is screwed in.

7.7.6 Installation of Water Meter:

The meter shall be installed in accordance with IS - 2401. The meters shall be fitted beyond the stopcock with unions to facilitate the removing of the meter for unions to facilitate the removing of the meter for repairs. If fitted in an exposed position outside the building the meter shall be housed in water meter chamber. Care shall be taken that the factory seal of the meter is not disturbed. When the meter shall be fixed to a newly fitted pipeline, the pipeline shall have to be completely washed before fitting the meter. For this purpose a piece of pipe equal to the length of the meter shall be fixed in the proposed position of the meter in the new pipeline. The water shall be allowed to flow completely to wash the pipeline and then the meter installed as described above by replacing the connecting pipe.

7.7.7 G.I. Pipes & Fittings:

The pipes shall be of medium quality galvanised iron, screwed socketed and shall confirm to IS 1239. All fittings shall be malleable iron galvanised fittings of approved best Indian make confirming to IS 1239 P II - 92.

7.7.8 Laying and fixing:

Where pipes have to be cut or re-threaded ends shall be carefully filled out so that no obstruction to bore is offered. For internal work all pipes and fittings shall be fixed truly vertical and horizontal, either by means of standard pattern holder bat clamps keeping the pipes 1/2" 12 mm clear of the wall everywhere or concealed as directed. For external work GI pipes and fittings shall be laid in trenches. The width of trench shall be minimum width required for working. The pipes laid underground shall be not less than 60 cm from the finished ground level.

7.7.9 Painting:

The buried pipes shall be painted with two coats of bitumastic paint and wrapped with hessain cloth dipped in bitumen. The exposed pipes shall be painted with the coat of red oxide and two coats of synthetic enamel of approved colour and shade.

7.7.10 Testing:

Before any pipes are painted or covered, they shall be tested to a hydrostatic pressure of 7.5 kg / sq.cm. Pressure shall be maintained for at least eight hours without appreciable drop in pressure. In addition to the sectional testing of water supply pipes, the contractor shall test

the whole of the installation to the entire satisfaction of the Authority's Engineer / PMC. He shall rectify any leakages, failure of fittings or valves.

7.7.11 Water Fittings (Tapes, Stopcocks etc.):

All water fittings shall be of approved quality and design and shall generally comply to latest IS Specifications. The fittings and joints shall be tested for 7.5 Kg/ Sq.cm. Defective fittings and the joints shall be repaired or redone replaced as directed.

7.8 Provision of Anchor and Thrust Blocks in Pipe Lines:

Anchor and thrust blocks for external water pipes shall be provided. In case of GI pipes of dia 80 mm and above laid inside buildings subjected to high pressure suitable MS anchors grouted in walls shall be provided at all bends and free ends.

7.9 Hydrostatic Testing for External Work:

Hydrostatic testing for external work shall be done as described in relevant of I.S. Specification for G.I. pipeline works.

7.10 Hydrostatic Testing for Internal Works:

Hydrostatic testing for internal work including pumped rising mains shall be done to a pressure rating of 7.5 kg/sq.cm.

7.11 Commissioning The System and Disinfection of Pipes and Fittings:

After completion of the entire internal plumbing system the overhead tank shall be filled with water mixed with decanted solution of bleaching powder to get concentration of 50 ppm. This water shall be filled to the entire system and kept for a contact period of 12 hours. Disinfection shall be done to the satisfaction of Authority's Engineer / PMC and then only the work shall be taken over. Care shall be taken to see that this water is not used for drinking and other purposes. The system shall be flushed with potable water before commissioning.

7.12 Back Filling the pipe trench:

Back filling of the trenches shall be done as described in para 4.70.

7.13 Restoration of Road Surfaces: Pavements etc:

8.1 The pressure gauges shall have not less than 115 mm dia, 10mm BSP full threads brass body siphon and gauge cock of 10mm size. Dial gauges shall be adequate for the pressure encountered and specified (0-15 Kg/cm square).

8.2 Valves shall be provided on branch pipe connection to mains and at connection to equipment where indicated. All valves are to be located for easy access and are to be full bore of pipe connected together. Proper valve chamber are to be provided as per the drawing / requirement. All valves shall be supported wherever necessary. Valves shall comply with IS 780 for C.I. sluice valves and IS 778 for G.M. valves and tested and approved by the Municipal Corporation.

8.3 Lawn Hydrants:Lawn Hydrants shall be of size 2.5 cm. unless otherwise indicated. All hydrants shall be provided with gate valves that are screwed faucet to receive hose pipes. Lawn hydrants shall be of approved make and design. Where called for lawn hydrants shall be located in brick masonry chambers of appropriate size as per specification given herein after.

8.4 Brass Bib Cock and Stop Cock: As specified in the BOQ

A bib cock (stop tab) is a draw off tap with a horizontal inlet and free outlet and stop cock (stop tap) is a valve with a suitable means of connections for insertion in a pipe line for controlling or stopping the flow. They shall be of specified size and shall be of screw down type. The closing device should work by means of a non-metallic washer, which shuts against water pressure on a seating at right angles to the exit of the threaded spindle, which operates it. The handle shall be either crutch or butterfly type securely seated pattern. The cocks (taps) shall open in anti-clockwise direction.

The bibcock and stopcock shall be polished bright. The minimum finished weights of bib tap (cock) and stop tap (cock) as given in the IS specification are reproduced below:

Size (mm)	Minimum finished Weight	
	Bib Tap (Kg)	Stop tap (Kg)
8	0.25	0.25
10	0.30	0.35
15	0.40	0.40
20	0.75	0.75

8.4.1 Ball Valve:

The Ball valve shall be of high-pressure type shall be of sizes as specified.

The normal size of a ball valve shall be that corresponding to the size of the pipe to which it is fixed. The ball valve shall be of brass or gunmetal as specified, and the float of copper sheet. The minimum thickness of copper sheet used for making the float shall be 0.45 mm for float exceeding 115mm dia. Plastic floats may also be used if specified. The body of the high-pressure ball valve when assembled in working conditions with the float immersed to not more than half of its volume shall remain closed against a test pressure of 3.5 kg/cm2.

8.5 Brass full way valve:

Full way valve is a valve with suitable means of connection for insertion in the pipe line for controlling or stopping the flow. The valve shall be of brass fitted with a cast iron wheel and shall be of gunmetal gate valve type openings full way of the size as specified. The valve shall be of best quality or approved by the Authority's Engineer / PMC.

8.6 Gunmetal full way valve with wheel:

These shall be of the gun metal fitting with wheel and shall be of gate valve type opening full way and of the size as per specification. These shall generally confirm to IS 778 - 1984.

All globe and check valves shall have working parts suitable for hot and cold water, as required. Valves shall be tagged with permanent label under hand wheel indicating type or duty.

8.7 Foot Valves & strainer :

Provide cast iron body with brass disc and strainer of approved quality, wherever shown. Test pressure of 5 kg/sq. cm. The valves shall conform to specifications of IS 4038: 1986

8.8 Pressure Reducing Valves:

Pressure Reducing Valves same shall be placed in the water supply down take pipes so that, the pressure inside water supply line will not exceed 3 bars, of approved make bronzed pilot operated spring loaded valves for reducing pressure upto 1 kg/cm2 suitable for specified diameter of pipe.

8.9 Sluice valves:

The sluice valves are used in a pipeline for controlling or stopping flow of water. They shall be of specified size and class and shall be of inside non-raising screw type spindle with either double flange or double sockets ends and cap or hand wheel.

These shall in all respects comply with the Indian standard specification IS 780 - 1984 for valves up to and including 300 mm size. Class-1 sluice valves are used for maximum working pressure of 10 kg/cm2 (100 meter head) and class II sluice valves for 15 kg/cm2 (150 meter head)

The body, domes, covers, wedge gate and stuffing box shall be of good quality cast iron, the spindle of bronze the nut and valves seats of leaded tin bronze. The bodies, spindles and other parts shall be truly machined with surfaces smoothly finished. The area of the waterway of the fittings shall be not less than the area equal to the nominal bore of the pipe. The valve wheel shall be marked with an arrow to show the direction of turn for closing the valves.

8.10 Appurtenances:

The other appurtenances of pipeline are mentioned below:

a) Air Release Valves:

These are placed at every summit in the pipeline to permit the escape of air when the main is filled and afterwards, if any air carried out into the mains. These are also placed on long stretches of nearly level main.

b) Scour Valves:

These are placed at the bottom of all depressions for emptying the main or letting out the sediment collected.

c) Reflux Valves:

These are fixed so as to open in the direction of flow and to automatically close if the water flows back. They are used to diminish the damage done by the escape of water due to a burst or prevent damage to impellers of pumps.

d) Safety or Pressure Relief Valves:

These are fixed at the down streams ends of long lengths of main or where water hammer may take place so as to reduce any excessive pressure to the normal if it occurs, like in water pipes of high rise buildings. They are also called pressure-reducing valves.

8.11 Masonry Chambers:

All masonry chambers for stop cocks, sluice valves, catch pits etc. shall be built as per supplied drawings and as per requirement.

a) Excavation:

The excavation for chambers shall be done true to dimension and levels as indicated on plans or as directed by the Authority's Engineer / PMC.

b) Bed Concrete:

This shall be cement concrete 1:3:6 (1 Cement: 3 fine sand: 6 graded stone aggregate 40mm nominal size) or 1:4:8 as suggested.

c) Brick Work:

This shall be in Class A Bricks (Table Molded) with crushing strength not less than 35 kg/cm2 in cement mortar 1:6 (1 cement: 6 fine sand) confirming to IS: 2212 - 1962.

d) Plastering:

Plastering not less than 12mm thick shall be done in cement mortar 1:3 (1 Cement: 3 coarse sand) finished with a floating coat of neat cement.

e) Surface Box:

This shall be of cast iron, well made and free from casting and other defects. All sharp edges shall be removed and finished smooth. The shape and dimensions for surface boxes for stopcocks, sluice valves etc. shall be as per approved samples.

8.11 Puddle flanges:

The puddle flanges of C.I. or M.S. shall be provided for outlet connection of water of water tank to avoid leakages.

a) Materials:

The puddle flanges are generally fabricated by welding a square or round MS plate of thickness 6 to 8 mm depending upon the diameter of the pipe to the outlet pipe from the water tank which has a flanged end for onward connection.

b) Fixing:While casting the water tanks, the assembled part consisting of flanged pipe length with welded puddle flange as per the dimensions and inserted as indicated in the drawing in position. The flanged pipe section should be facing either on both side or on outside facing the tank.

The puddle flanges are recommended to be used for all sizes of outlets.

8.12 Butterfly Valve:

8.12.1The Butterfly valve shall be suitable for waterworks and tested to minimum of 16 kg/sqcm Pressure. The valves shall fulfill the requirements of IS 13095 or BS: 5155 or AWWA C 504, API 609 and MSS-SP-67.

8.12.2 The body shall be of cast iron to IS: 210 in circular shape and of high strength to take the Minimum water pressure of 10 kg/sq cm. The disc shall be heavy-duty cast iron with anti-Corrosive epoxy or nickel coating.

The valve seat shall be high grade elastomer or nitrile rubber. The valve in closed position shall have complete contact between the seat and the disc throughout the perimeter. The elastometer rubber shall have a long life and shall not give away on continuous applied Water pressure. The shaft shall be of ENB grade carbon steel.

8.12.3 The valve shall be fitted between two flanges on either side of pipe flanges. The valve edge Rubber shall be projected outside such that they are wedged within the pipe flanges to Prevent leakages.

8.12.4 The valve shall be supplied with manual gear operated opening/ closing system by lever.

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SECTION 9 –ANCILLARY SEWERAGE STRUCTURES

9.0 Construction of Manholes, Inspection Chambers:

For civil works involved in the construction of manholes etc., relevant specifications under civil works shall be followed. Construction of manholes, inspection chambers shall be carried as per drawings and as per IS specifications.

9.1 Manholes to be Water Tight:

The inside and the outside of all manholes shall be rendered with cement mortar as laid down in the schedule and as shown in the drawing to the required thickness and worked to a polished face with a coat of neat cement and they shall be absolutely water tight.

9.2 Shaping of Manhole Inverts:

The channels shall be formed of 1:2:4 cement concrete as shown in the drawing. There shall be fall of not less than 20mm in each manhole from inlet to outlet. Side Benching should have a slope of 1:10.

9.3 Dewatering of Excavation:

The contractor shall keep all excavation for manholes and all other works absolutely and continuously clear of water, down to a level below the bottom of the work to be carried out and shall construct the manholes and other works without allowing any water to rise in the excavation made for said works. He shall more over continue full pumping operations and shall keep the excavation for each manhole or other works free of water until the manholes or other works are completed. Subsequently, the contractor shall carry out at his own cost all dewatering and pumping operations required to make good the defect or defects to the satisfactions of the Authority's Engineer / PMC.

9.4 Plastering of inside and outside wall surfaces of Manholes, Inspection Chambers etc.

The surface to be plastered shall first be thoroughly cleaned and all joints raked out not less than 12mm deep to receive key for plaster. The surface shall be thoroughly wetted for at least 24 hours prior to commencement of work. The mortar shall be of uniform mixture as specified. The thickness of cement and sand plaster shall be either 12mm or 20mm. The first coat shall be just sufficient to fill up rubble masonry. It shall not be smoothened till the second cost is still over. Cement mortar which falls to the ground during application shall on no account be reused. The floating coat over the plaster shall be done with neat cement as approved by the Authority's Engineer / PMC.

9.5 Channeling and Benching:

The Channels inside the manholes and chambers shall be formed of cement concrete 1:2:4, with 20 mm aggregate as shown in the drawings and as specified in the relevant items of the schedule. It shall be to the full width of the drain. The depth of the channel shall be as per drawing; similar curved channels shall be built in the chambers. The depth of channel is maintained up to the top external diameter of the main pipe.

9.6 Manhole Covers and Frames:

Design and manufacture:

The manhole covers and frame shall be of clear size specified opening. The minimum thickness of pre-cut RCC/CI/DI/FRP covers and frame are as specified in B.O.Q. These covers shall withstand class A loading. The cover and frame shall be clean molded, accurately made and fitted in a workman like manner, the surface being smooth and even.

9.7 Setting of Manhole Frames:

All manhole frames shall be set to correct alignment and levels, embedded in layers of cement concrete 1:2:4 to the satisfaction of the Authority's Engineer / PMC in all respects. It should weigh as specified in B.O.Q.

9.8 Depth of Manholes:

The depth of manholes shall be measured from the top of cover to the invert level of the manholes.

Removals, restoration of roads and paved foot paths etc. and site cleaning removal, restoration of roads and foot paths and site cleaning shall be carried out properly.

9.9 Gully Traps and Chambers:

Gully taps shall be 150mm x 100cm glazed stone were laid in 15cm concrete bed, cement plastered and rubbed smooth. A full size 300mm x 300mm or as specified, cast iron frame and cover painted two coats hot tar shall be fixed securely no top. The rate includes all these works specified including providing top grating below the cover frame to separate big size solid material, entering sewers.

9.10 Sewer Trap or Intercepting Trap:

Sewer trap of approved make and size of salt glazed earthenware shall be built into the outfall manhole. The interceptor shall have cascade, clincher, and stopper with length of galvanized chain secured to staple built into the wall of the manhole just below the cover.

The trap shall have a water seal of at least 100mm depth.

9.11 Catch Basins:

Catch basins shall be of size and depths as called for in the drawings and shall be provided in the locations as shown in the drawings. Catch basins shall be provided with cast iron gratings with frame, for effective collection and disposal of storm water.

9.12 Providing & Constructing Drop Connection:

In case where branch sewer enters the manholes of main pipe sewer at higher level than the main sewer, a drop connection should be provided. Pipes and specials conforming to IS: 1729 shall be of the same size as the branch pipe sewer.

For 150mm and 250mm main line if the difference in level between the water line flow level and the invert level of branch line is less than 60cm a drop connection may, be provided within the manhole by giving a suitable ramp. If the difference in level is more than 60 cm the drop should be provided externally.

The excavation shall be done for the drop connection at the place where the branch line meets the manhole. The excavation shall be carried up to the bed concrete of the manhole and to the full width of the branch line excavation and backfilling shall be done as per respective specifications.

At the end of branch sewer lines CI tee shall be fixed to the line, which shall be extended through the wall of the bend at the bottom. The bend shall be extended through the wall of the manhole by a piece of pipe, which shall discharge into the channel. Necessary channel shall be made with cement concrete up to main channel. The joints between CI tee and S.W. branch line shall be made with cement mortar 1:1 (1 cement: 1 fine sand) and encased all around with minimum 15cm thick concrete 1:5:10(1 cement: 5 coarse sand) and plastered with cement mortar (1 Cement: 3 fine sand) on the inside of the manhole wall. The excavated earth shall be back filled in the trench in level with the original ground level. Drop connection shall be measured in numbers.

9.13 Providing & Constructing Road Gully Chambers:

The chamber shall be of brick masonry and shall have a C.I. grating with frame fixed in 150mm thick cement concrete of grade M-150 at the top. The size of the chamber shall be taken as clear internal dimension of the C.I. frames. The chambers shall have a S.W. connection pipe, the length of which between road gully chamber and the point of discharge to drain or to open ground shall be measured separately. The chamber shall be built at the locations as indicated in drawings regarding Bed concrete, brick work, plastering R.C.C. work. Excavation, backfilling etc., shall be as per details given on the drawing and in compliance with the requirements laid down in the specifications for the respective items. The M.S. grating cover shall be hinged to the frame to facilitate its openings for cleaning and repairs. The weight of grating shall be 75 kg minimum. After the completion of the work the exposed surfaces of the grating and the frame shall be painted with two coats of synthetic and corrosive enamel paint.

SECTION 10 –SANITARY FIXTURES AND CHROMIUM PLATED (C.P) FITTINGS

10.1 General:

All the Sanitary Ware, CP Fittings, Sinks and Accessories shall be as per the BOQ Items – Specs.

10.1.1 All sanitary fixtures and Chromium plated C.P. fittings shall be fixed in a neat workman like manner true to line and as recommended by the manufacturer or shown in the drawings. Care shall be taken to fix all inlet and outlet pipes at correct positions. Faulty locations shall be made good and any damage to the finished floor tiling or terrace shall be made good at contractors cost. Care shall be taken to fix all fixtures brackets and accessories by proper wooden cleats, rawal plugs, bolts and nuts.

10.1.2.Care shall be taken in fixing all approved C.P. fittings and sanitary fixtures so as not to leave and tool marks or damages on the finish. All such fittings shall be tightened with fixed spanners. Use of pipe wrenches with toothed jaws shall not be allowed.

10.1.3 All C.P. fittings and sanitary fixtures shall be fixed in accordance with a set pattern matching the tiles or interior finish as the architectural / interior designer's requirements. Wherever necessary, the fittings shall be centered to dimensions and pattern desired.

10.1.4.All sanitary fixtures and C.P. fittings shall be thoroughly tested after connecting up the drainage and water supply system. These shall be thoroughly finished and if any leakage, it shall be corrected to the entire satisfaction of the Authority's Engineer / PMC.

10.1.5 When directed, contractor shall install sanitary fixtures and C.P. fittings in a mock-up room for the approval of the Authority's Engineer / PMC. Mock-up room fixtures and C.P. fittings may be reused on the works if undamaged, but no additional payment for fixing and dismantling shall be admissible.

10.1.6 Upon completion of the work, all labels, stickers, plasters, etc. shall be removed from the sanitary fixtures and all C.P. fittings shall be cleaned so as to present a neat and clean toilet.

10.2 European Type Water Closet (E.W.C.):

The Closet shall be of approved color and make as mentioned in the schedule of quantities vitreous china wall hung type with flush tank set as per schedule of quantities with all internal parts fixed by approved means.

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It shall have 100 mm dia porcelain trap with effective seal. When EWC is not in use, the seat cover should rest on the rear wall. Other important point to be seen in the installation is that the screws through which EWC is fixed to the walls are strong and properly tightened. Rubber seal should be introduced between the walls and the pan to allow for minor variation in the level of wall.

Each closet shall be provided with the following accessories.

a) Solid PVC seat rubber buffers and C.P. brass screws fixed to the pan.

b) And necessary fittings, hardware, etc. to complete the above.

10.2A Urinals

Urinals shall be lipped type large flat back in white glazed vitreous chinaware of size 59.00cm x 37.5cm x 39cm unless specified otherwise.

Urinals shall be provided with:

i) 15 dia spreader

ii) 32 dia CP dome waste

iii) 32 dia CP P-trap with unions.

iv) CP wall flange and pipe.

All exposed pipes and fittings shall be of C.P brass. The urinals shall be fixed with C.P brass screws.

Urinal flushing shall be through one of the following methods as specified in the schedule of work:

i) Small urinal flush valve with exposed push button.

flush pipe shall be of copper or G.I except the exposed parts which shall be C.P brass.

Waste pipe for urinals shall be any one of the following: -

Agri. PVC pipes & fittings of 6kg/cm2. IS 4985

(With solvent cement joints)

Urinal partitions shall be white glazed vitreous chinaware complete with CP brass screws, anchor fasteners etc. as required.

10.3 Wash Basins:

They shall be of white vitreous China best quality manufactured by an approved firm and size as specified. They shall be supported on a pair of C.I. brackets of approved design or on kadappa slab as per Architect's instructions.

Each wash basin shall be provided with 15mm angle stopcock, 450mm long 8mm dia C.P. inlet pipe, 32mm C.P. waste coupling, 32mm dia bottle trap with C.P. extension pipe brass chain and rubber plug unless otherwise specified and 32 mm dia G.I pipe from Bottle trap to Floor -trap.

The washbasin is normally supported on a cantilever brackets. However, there is a tendency to simply rest the washbasin on the cantilever bracket. The basin is not fixed properly; it can be taken away easily. The basin should have plaster on the rear side touching the wall resting over the top edge of the basin apart from closing one of the gaps through which the water leaks it also makes the basin fixed to the wall and cannot be taken out easily. Other tendency is to discharge basin waste through a flexible pipe on floor which many times allows the water overflow. The correct way of installing the washbasin is therefore through bottle trap.

10.3A Stainless Steel Sinks

Stainless steel sink of size 600 x 510 x 200 mm including coupling, outlet pipe, elbow

i) 40 dia waste fitting with brass/rubber plug & chain.

ii) 40 dia P-trap with clean out, unions, CP pipe to wall & wall flange.

iii) 20 dia CP control valve/s with CP connections.

v) Mixing or CP fittings with Sensor flow spout as specified.

10.4 Bib-Cocks:

The Bib-cock shall be of 15mm dia brass C.P. with C.P. wall flanges.

10.5 Toilet Accessories:

10.5.1 Towel Rod:

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Towel rail shall be with louver hangers. The size shall be as specified. The bracket shall be fixed by means of C.P. brass screws to wooden cleats firmly embedded in the wall.

10.5.2 Toilet Paper Holder:

Toilet paper holder shall be of CP type as specified in schedule of quantities.

10.5.3 Soap Tray:

Soap tray shall be of CP type as specified on schedule of quantities.

10.5.4 Towel Ring:

Towel ring shall be of C.P. / anodized aluminum /powder coated as specified in schedule of quantities. It shall be fixed by means of C.P. brass screws to wooden cleats / plastic expansion plugs firmly embedded in the wall.

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SECTION 11 –PUMPS AND ANCILLARY EQUIPMENTS

11.1 The pumps offered shall be to satisfy the duty. Conditions stipulated in the Bill of Quantities. Pumps shall confirm to IS 5120 for handling water.

11.2 Accessories to be provided with pump set:

11.2.1 Each pump shall be provided with 100mm dia. dial pressure gauge (suitable for measuring up to 10kg/sq.cm) with gunmetal isolation cock and connecting piping.

11.2.2 Each pump shall be provided with a non return valve and sluice valve/ gate valve/ butterfly valve on its delivery line.

11.2.3 Each pump shall be provided with a switchboard with a provision has voltmeter (b) Ammeter (c) single phase protection (d) main switch.

11.3 Each Set of Pumps to be provided with an automatic control panel for operation of the pumps such that the pumps shall start at a pre-determined time and shall be switched off through a pressure switch operated by a pressure vessel for domestic & flushing pumps.

11.4 Sump Pump

13.4.1 Submersible

These shall be fully submersible with a fully submersible motor. The pumps shall be provided with an automatic level controller and all interconnecting power and control cabling which shall cause the pumps to operate when the water level in the sump rises to a preset level and stop when the preset low level is reached.

Pumps for drainage shall be single stage, single entry.

Pump shall be C.I. casing and C.I. two vane open type with a dynamically balanced impeller connected to a common shaft of the motor. The vane for sewage pump will be open type, while for drainage pump, etc. it will be of semi open type. The MOC of the sump shall be in accordance to schedule of quantity.

Stuffing box shall be provided with mechanical seals.

Each pump shall be provided with a suitably rated induction motor suitable for 415 volts, 3 phase, 50 Hz A.C. power supply.

Each pump shall be provided with in built liquid level controller for operating the pump between predetermined levels.

The pumping set shall be for stationary application and shall be provided with pump connector unit. The delivery pipe shall be joined to the pump through a rubber diaphragm, and bend and guide pipe for easy installation.

Pump shall be provided with all accessories and devices necessary and required for the pump to make it a complete working system.

Sump pump shall be complete with level controllers, power and control switch gear, Auto/off/Manual switches, pumps priority selections and control and power cabling upto motor and controller/probes etc. (Including earthing). Level control shall be such that one pump starts on required level, 2nd pump cuts in at high level and alarms is given at extra high level. All level controllers shall be provided with remote level indications.

13.4.2 Motor Design

The pump motor shall be a squirrel cage induction, housed in air filled water-tight enclosure. Oil filled motors are not acceptable. The stator windings shall be Class "F" insulation (155 degree C or 311 degree F) for general usage and class `H' insulation (180 degree C or 317-8 grade 2) for submersible type.

The stator shall be heat shrunk fitted into the enclosure and shall not use bolts, pins or other fasteners that penetrate through the stator enclosure. The starter shall be equipped with a thermal switch embedded in series in the coils of the stator windings to protect the stator from wheel.

The motors shall be designed for continuous running duty type at 415 volts, 3 phase, 50 Hz power supply and capable of sustaining a minimum of 20 starts/stops per hour.

Between stator housing and pump, a tandem seal arrangement will be provided with an oil barrier. Both seals run in oil, allowing dry running without seal damage. Both seals shall be of the rubber bellows or metallic bellow type with positive drive between shaft and rotating seal face.

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PRAFULVED INFRA PVT. LTD. NAGPUR

Specification for Lifts

Scope:

Specification (LFT)

Supplying erecting and commissioning passenger lift, hospital lifts and goods lift with technical requirements of lift installation, its components, safety devices various type of controls and methods of operation. The selection of a particular type of control and method of operation will be guided by the requirements in individual case such as nature of building, usage, occupancy, traffic pattern, etc. and has to be decided in individual case considering quality and quantity analysis of service.

Recommended Standards:

The following list is for Indian Standards which are acceptable as good practice and accepted standards:

IS 14665 part I : Guidelines for outline dimensions of passenger, goods, service and hospital lifts.
IS 14665 part II : Code of practice for installation, operation and maintenance of lifts.
IS 14665 part III : Safety rules
IS 14665 part IV : Components

Development Control

Rules : Of concerned Corporation or Local Authority

National Building Code 2005
Bombay Lift Act 1939
Bombay Lift Rules 1958
I. E. Rules 1956 : Reprint as per 2005

Material:

Electric Supply:

Three phase, 50 c/s, 415 V electric supply shall be made available by owner. The entire lift equipments should be suitable for operation at +10% to - 20% of the rated supply voltage.

Gearless machine:

The gearless machine shall consist of a motor, traction sheave and break-drum or brake disc completely aligned on a single shaft. Gearless machine shall be AC. gearless with VVVF drive.

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Geared machine:

The lift machine shall be of worm gear reduction type with motor, brake, worm gearing and driving sheave and suitable for type of control specified.

Electric motor:

Energy efficient Electric motor of suitable HP with class F insulation and S-4 duty cycle

Car:

As per IS 14665 part IV with MS Girders, bracings of adequate size and strength at the bottom and top with angle iron frame and side panels of CRCA/MS of 16 gauge duly powder coated paint or SS sheet of 18 gauge with mirror or hairline finish with safety factor more than 5.

Signals:

FPI in car and CPI at all landings are to be provided with up / down direction indicators with call registration facility.

Variable Voltage Variable Frequency:

Incoming mains AC power is first rectified to DC and then inverted to provide controlled AC current to the elevator drive. Precision monitoring is required for motor speed, car direction, position and load to enable the pulse width of the AC power supplied to the motor and to be adjusted to ensure that elevator speed is maintained very accurately to an ideal profile. Energy saving through reduced power consumption should be achieved.

Controls:

Microprocessor based Control panel duly wired with proper size and strength of copper wire.

Control panel box:

Control panel box of MS sheet of 16 gauge with duly power coated of MS sheet of 16 gauge.

Driving / traction pulley:

Sheaves and pulleys shall be of hard alloy, cast iron, SG iron or steel and free from cracks, sand holes and others defects. They shall have machined rope grooves. The traction sheave shall be grooved to produce proper traction and shall be of sufficient dimension to provide for wear in the groove. The deflector sheave shall be grooved so as to provide a smooth bed for the rope.

Over speed governor:

The car safety shall be operated by speed governor located overhead and driven by governor rope suitably connected to the car and mounted on its own pulleys. Governor shall be provided for lifts with a travel of

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more than 5.5 meters. The governor rope shall be not less than 6mm in dia and shall be made of steel or phosphor bronze. These shall be in accordance with IS 14665 (part 4lsec-4): 2001.

Electromagnetic breaks:

The lift drive machinery shall be provided with an electro-magnetic brake or motor operated brake normally applied by means of springs in compression when the operating device is in off position. The brake shall be suitably curved over the brake drum or brake disc and provided with fire proof friction lining. The operation of brake shall be smooth, gradual and noiseless. The brake shall be designed to be of sufficient size and strength to stop and hold the car at rest with rated load. The brake should be capable of operation automatically by the various safety devices.

Suspension wire rope:

Round strand steel wires ropes made from steel wire ropes having a tensile strength not less than 12.5 tones / cm2 and of good flexibility shall be used for lift. Lubrications between the strands shall be achieved by providing impregnated hemp core.

Guide rails:

The guide rails shall be continuous throughout the entire travel and shall withstand without any deformation by the action of safety gear with a fully loaded car. Generally the guide rails shall be supported by brackets secured to the hoist way frame at each floor. The rails shall be securely fastened to the brackets or other supports by approved heavy rail clamps. Guide rails shall extend from pit floor to the underside of concrete slabs or grafting at top of the lift well. They shall be erected in plumb and parallel with a maximum deviation of 3mm.

Buffers:

Buffers shall be suitable for installation in the space available. Buffer anchorage at pit floors shall be installed avoiding puncturing of water proofing. Oil buffers of the car and counter weight shall be of the spring return type or of gravity type. The contractor must indicate the name of buffer manufacturers, buffer stroke & certified maximum loads.

Method of Construction:

Bar chart shall be prepared as per tender condition and requirement. Lift hoist way measurement shall be done before finalizing the material quantity.

Drawing should be prepared according to tender specification considering hoist way size and permission from Lift Inspector for erection of lift should be taken prior to commencement of erection.

White wash in lift well shall be carried out by the client.

- Site in full readiness shall be handed over to the agency.
- Minor civil work pertaining to front wall architraves internal / external plastering etc. shall be done by the lift agency.

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• Prepare and install scaffolding and template by adjustment required.

• List of components / finished items those are not manufactured by lift manufacturer shall be informed by the agency.

• Brackets are to be erected and fixed in to plum line.

• Put the fasteners (16 mm dia x 100 mm) if the brackets are to be fixed on RCC wall / beam / lintel or fix rig bolts if brick work found in RCC.

• After fixing brackets and guides with adjustment fix the car and counterweight

• Fix the landing door frame / door bottom with sill and suitable brackets to with stand the load of passenger / freight as per specification

• Fix metal trunking / PVC pipe as per IS requirement

• Complete civil work such as fixing up hoist way, push button, buffers, machine room I beams for resting machine, foundation for control panel, minor civil work, making holes in bottom slab of machine room to pass traction rope, speed governor rope / wiring and complete finishing according to sizes and specification.

• Electrical wiring in lift shaft and supply cable shall be carried out from electrical agency as per requirement of lift rules.

• Fix machine with complete gear box unit, suitable rubber pad / anti vibrating pad, diverter if required with alignment as per norms.

• Fix the control panel at accessible height from floor level to inspect, connect, and operate easily.

• Put wires in accordance with the control panel connection diagram according to colour code in metal trunking with insulating paper on all bends, corners. Metal trunking shall be duly earthed from top to bottom according to IS specifications.

• Mid way junction boxes are to be fixed according to size but it should be marked by every wire with nos. (Ferrules) Traveling cables should be fixed with suitable hanger to take load of travelling cable and put extra wire of 20 % approximately

• Fix the car and counterweight frame according to sizes, adjustment of safety block wedges shoes as per requirement.

• **Toe Guard Aprons:**

• The toe guard apron of gauge not less than 1.6mm sheet steel may be provided extending at least 15mm beyond entrance jams at each side. The guards shall have a straight vertical face extending below the level of the finished car floor and not less than the depth of the levelling zone plus 7.5mm. It shall be seamed to car platform construction and be reinforced and braced.

• **Car Apron, Landing Thresholds and Sills:**

An apron shall be fitted to the car platform such that no dangerous gap exist at any time when the landing door is opened, Thresholds and sill plates shall be provided at the landings also. The distance between landing sill and the sill on car platform shall not be more than 30mm.

• **Emergency Power Supply for lift car, fan and intercom system:**

This shall include suitable secondary battery with trickle/Boost charge arrangement and inverter power pack with necessary contactors for supply to light fixtures in the lift car, fresh air fan in lift car. The same battery shall also feed the alarm bell and communication equipment.

• **Inter-communication system:**

Intercom system shall be provided in car to have communication in case of an emergency and shall be connected to re-chargeable battery supply.

• **Ratings and Instructions:**

Inside the lift car, the lift supplier shall also provide a stainless steel metallic plate indicating the rated load and detailed instructions for the passengers. This shall be mounted at a suitable place.

• **General:**

a) Put main traction ropes from car to counterweight with rope tension adjustment.
b) Put counterweight i.e. of CI blocks in counter weight frame for suitable equilibrium.
c) Put car platform and car with adjustment.
d) Fix car door and panels / car push button/ fall ceiling light, fan.
e) Fix landing panels and put in lock in circuit.
f) Fix hoist way accessories like drum reels terminators, final limits, levelling
g) Removing the scaffolding.
h) Connect three phase supply from main switch along with earthing to controllers as per instruction given.
i) Wiring from controller to motor along with earth wire is to be completed.
j) Check motor / gear oil.
k) Start lift in maintenance mode.
l) Check adjustment of hoist way switch/ safety doors and check all parameters of shaft.
m) Put controller on normal mode.
n) Test run to be taken and & service inspection of lift with all safeties shall be done in presence of site in charge.
o) Pre commissioning work such as cleaning of shaft, pit etc shall be done.
p) After completion of work, NOC shall be obtained from lift inspector
q) by the agency before putting LIFT in to operational use.

Testing of Lift Installation:

Tests at site:

(a) Levelling Test:

Accuracy of the floor levelling shall be tested with the lift empty, fully loaded. The lift shall be run to each floor while travelling both in upward and downward directions and the actual distance of car floor above, below landing floor shall be measured. In each case there shall not be any appreciable difference in these measurements for levelling at the floors when the car is empty and when it is fully loaded. The tolerances for levelling shall be as specified in para 8 of chapter IV, section I.

(b) Safety Gear Tests:
Instantaneous safety gear controlled by a governor should be tested with contract load and a contract speed, the governor being operated by hand. Two tests should be made, however, with wedge clamp or flexible clamp safeties, one with contract load in the car and the other with 68 kg (equivalent to one person) in the car. The stopping distance obtained should be compared with the specified figures and the guides, car platform, and safety gear should be carefully examined afterwards for signs of permanent distortion. Counterweight safety gear should be tripped by the counter weight governor and the stopping distance noted. In this case, however the governor tripping speed may exceed that of the car safety governor but by not more than 10 percent.

During the safety gear tests, car speed (from the governor or the main sheave) should be determined at the instant or tripping speed with that stated in IS. The governor jaws and rope should be examined for any undue wear.

(c) Contract speed:

This should be measured with contract load in the car, with half load, with no load, and should not vary from the contract speed by more than 10 percent. The convenient method is by counting the number of revolutions, made by the sheave or drum in a known time, Chalk mark on the sheave or drum and a stop switch will facilitate timing but care must be exercised to ensure that no acceleration or retardation periods are included. If the roping is 2 to 1 the sheave speed is twice the car speed. Alternatively, the speed can be measured by a tachometer applied directly to shaft immediately below the sheave.

(d) Lift balance:

After the above test, some of the weight shall be removed until the remaining weights represent the figures specified. With this condition at half way travel the effort required to move the lift car in either direction with the help of winding wheel shall be as nearly as can be judged by the same.

(e) Car and landing doors interlock:

The lift shall not move with any door open. The car door relay contact and the retiring release cam must be tested. The workings of the door operation and the safety edges and light equipment if any provided shall also be examined.

(f) Controllers:

The operation of the contactors and interlocks shall be examined and it shall be ascertained whether all the requirements laid down in the specifications have been met.

(g) Normal terminal stopping switches:
These shall be tested by letting the car run to each terminal landing in turn, first with no load and then with contract load and by taking measurements, top and bottom over travels can be ascertained.

(h) Final terminal stopping switches:

The normal terminal stopping switches shall be disconnected for this test. It shall be ensured that these switches operate before the buffers are engaged.

(i) Insulation Resistance:

This shall be measured (after removing the electronic PCB's and their connection) between power and control lines and earth and shall not be less than 5 mega-ohms when measured with D.C. voltage of 500 volts. The test shall be carried out with contactors so connected together as to ensure that all parts of every circuit are simultaneously tested.

(j) Earthing:

Earthing continuity of all conduits, switches, casing and similar metal work shall be tested.

(k) Ropes:

The size, number construction and fastenings of the ropes should be carefully examined and recorded.

(I) Buffers:

The car should be run on to its buffers at contract speed and with contract load in the car to test whether there is any permanent distortion of the car or buffers. The counter weight buffers should be tested similarly. Test report shall be intimated after testing at works.

Service Temperature Test:

A continuous run of one hour should be made with number of starts and stops to reproduce as nearly as practical the anticipate duty in service. (The standard duty cycle is for 180 starts per hour). It is very difficult in practice to carry out this test with alternate starts at full load and no load and it is necessary therefore to simulate these cycles. A suitable test for all motors except squirrel cage motors is to run the car up from the bottom landing with contract load and stop at each floor. From the top floor a non stop run is made to the lowest floor and the upward journey with stop is then repeated. The time intervals between stops and starts at the floors should be uniform and such as to give about 150 starts in one hour.

At the end of this run the temperatures of the armatures and fields of the motor and generator are recorded. The temperature rise should, not exceed 55 deg C or 75 deg C for class A or B insulation respectively.

Method of Construction: Executed quantity will be counted on number basis. (i.e. each)

Approved Make : Otis, Johnson, Kone, Schindler

LIST OF APPROVED MATERIALS, SUPPLIERS & VENDORS

PREAMBLE:

1) All materials shall conform to relevant technical specifications of Volume-II of the Tender Document. The materials shall be further subjected to tests in the recognized laboratories at the discretion of the PM.

2) Materials bearing appropriate IS marking shall be given preference while selecting for the work. In addition the materials can be purchased from the approved vendors as listed below.

3) In case of materials which are not widely available with IS marking in the market but conform to the technical specifications mentioned in the Tender Documents, the same shall be procured from any of the vendors listed below.

4) Cement for work shall have relevant IS marking and every lot shall be subject to tests in the recognised laboratories. For Concrete work M53 grade OPC and for Masonry & Plastering work M43 grade OPC / PPC shall be used.

The list given below is only indicative and not restricted to brand mentioned. PM can approve any other brand subject to verification of the adherence to the relevant technical specifications / standards.

S. No.	MATERIALS	MAKES
1.	Cement	ACC, Rajashree, Ambuja, Vasavdatta, Ultratech.Binani
2.	White Cement	Birla, J.K.
3.	Antitermite Treatment	PCI, Godrej Pidilite, PCI, Godrej, Express Pesticide
4.	Cementitious Additives	As per RMC vendors choise & comfort level. The same shall be detailed in the concrete mixdesign for every grade.
5	GGBS	JSW
	PFA	Ashtech / Dirk India / Tata Power /
	Microsilica	Alcofine / Elkem
6	RMC	RMC / Ultratech / Godrej / Nuvoco Vistas / ACC
7.	Reinforcement Steel - Fe500 TMT (CRSD)	SAIL / TISCO / VIZAG / ESSAR

S. No.	MATERIALS	MAKES
8.	Anchor Fasteners	Hilti, Fisher, Halfen, Mungo
9.	Structural Steel	TISCO, SAIL, RINL, Jindal, Vizag
10.	Mechanical Couplers	Unitech / Utracon / Moment /Dextra
11.	Decking Sheet	JSW / Uttam Galva / CRIL
12.	Shear Studs	JSW / Tata / Interarch
13.	PT Steel (Strands)	Tata, Usha Martin
14.	Grouting Compound	Fosroc / Pidilite / Sika / Sunanda
15.	System Formwork	Doka / Peri / RMD
16.	Formwork Release Agent	Fosroc / BASF / Pidilite
17.	Intumescent Paint	Berger / Akzonobel / Newkem
18.	Vermiculite Cementitious Coating	Grace / Berger / Akzonobel / Newkem
19.	Waterproofing Membrane / Coating	Hitchins / Blue
20.	AAC blocks	Siporex India limited, BILT Industries Pvt. Ltd, Ultratech, Ecolite, Aerocon
21.	Chemical Admixtures & Water proofing Compounds	BASF, Fosroc, MC Bauchemic, Pidilite, CICO, Sunanda Chemicals, Fairmate., Sika
22.	Anticorrosive Paint	Asian, Burger
23.	Gypsum Plaster	Saint-Gobain (Gyproc), Buildcon, Permaboard
24.	Polypropylene Fibers	Fibermesh, Duracem, Eurofaster
25.	Non-shrink compound	Fosroc, BASF, CICO, Pidilite, Sunanda Chemicals
26.	Silicon Sealants	Dow Corning, GE Silicon, Wacker Silicon, Pidilite
27.	Chemical bonding agent	Sunanda, BASF, Fosroc
28.	Chemical Waterproofing	Fosroc, BASF, Pidilite, Sundnda chemicals, SIKA, Nanoflex
29.	Aluminium Extruded Sections / sheet	Jindal, Global, Bhoruka, Hindalco
30.	Glass	Saint Gobain, ASAHI INDIA, Modi float

S. No.	MATERIALS	MAKES
31.	Paints, Polish	Asian, Berger, ICI, Goodlas Nerolac
32.	Textured paint	Ultra tech, Oikos
33.	Putty	Birla, Shalimar
34.	Plywood	Green Ply, Anchor, Century
35.	Laminate	Formica, Decolam, Greenlam
36.	Vitrified Tiles	Euro, RAK, Kajaria, H.R. Johnson, NITCO, Asian, Red stone
37.	Ceramic tiles	Regency, Kajaria, Johson, Hindustan, Bell NITCO, Red stone
38.	Glazed tiles	1st quality Johnson, Somany, Kajaria
39.	Adhesives & Grouts	Kerakoll, superflex, Bal, Laticrete, BASF, FOSROC
40.	Flush door	Annad, Ravela/Everest
41.	Hardware	Dorma, Hafele Geze, Godrej, Doorset
	ELCETRICAL WORK	
42.	Decorative 3 pin , 15 A 230 V Modular Type socket with control switch	MDS Mosac/ North West/ Clipsal/ Crabtree/ABB/Seimens
43.	Decorative 5A-230V Modular type switches & socket.	MDS Mosac/ North West/ Clipsal/ Crabtree/ABB/Seimens
44.	Electronic Type 300 W Fan Regulator	MDS Mosac/ North West/ Clipsal/ Crabtree/ABB/Seimens
45.	Junction Boxes & Accessories	MDS Mosac/ North West/ Clipsal/ Finswitch/ L&T/Crabtree/ Anchor
46.	Holders & Connectors	MDS Mosac/ North West/ Clipsal/ Crabtree
47.	Iron clad switches	G.E.C/Crompton/Sentinal/stainley/Kew
48.	500V grade PVC insulated copper wire	Finolex / RR Kable/ L&T (FRLS Multistand)/HPL

S. No.	MATERIALS	MAKES
49.	Miniature Circuit Breaker (10 KA)	Legrand / Heqar/ HPL
50.	MCB Distribution Board	Legrand / Heqar /HPL
51.	Earth leakage circuit breaker / RCCB	Legrand / Heqar /HPL
52.	Telephone tag block	I.T.I or approved make
53.	PVC conduit (1.6 mm thick) (ISI mark)	Garware / Precision / Super Plast
54.	Luminous bell indicator with indicating light & Reset push button.	Anchor /Golite
55.	30A, 250 V D.P switch with rewireable fuse	Legrand / Heger
56.	ACB (Air Circuit Breaker)	LT/ schnider/ Siemens /
57.	Switch Fuse Unit	LT/English Electric (Panel Mounting)/ Schnieder
58.	Ammeter / Voltmeter	AEI / Havells / Rishab (L & T) MECO
59.	Selector Switches	KAYCEE / L &T.
60.	Light fitting	Philips / Wipro .
61.	Ceiling Fan.	Crompton / GEC
62.	MCCB(ICS = 100 % ICU)	L & T / M.G. / Hegar/ MDS
63.	Current Transformer	AE / KAPPA / MECA.
64.	KWH Meter (Electronic with digital display)	GEC / Universal / LT / LK / Jaipur/ Havells
65.	Exhaust Fans	Cromption / GEC / Khaitan.
66.	Casing – Capping	Precision/ Asian.
67.	M.S. Conduit	BEC/AKG/ Steel Kraft
68.	HRC Fuses	L & T / Siemens
69.	Capacitor	Cromption / Meher (LT/LK)

S. No.	MATERIALS	MAKES
70.	L.T. Cables 1100 V. Grade Arm. Cables	Uniflex / Finolex / Polycab / Avocab/ Havells
71	Change over switch	Helcon / Siemens / Universal/ Havells
72.	A.C. Boxes, Industrial socket with SP MCB	Laygrand / Heger / Hevels
73.	Transformer 11 KV/ 433 V	Crompton/ Kirloskar/ Areve/ Voltamp / Hirise, Nagpur/ R.K.Electricals/ Sonali Power Equipemnts
74.	HT Cables XLPE cables	Uniflex/ Torrent/ Nicco/Fort Gloster// Universal / Havells
75.	A.B. Switch/ D.O. fuse	Kiron/ AME
76.	Lighting Arrestor	ELPRO
77.	11 KV LT jointing Kit	Raychem/ M- Seal
78.	Ring Main Unit (HT Switch Fuse Unit)	CG Lucy/ Megawin / Andrew Yule
	PLUMBING WORK	
79.	Sanitary ware and Chromium Plated Fittings	Jaquar / Kohler / Roca /Hindware
80.	Toilet Accessories	Jaquar / Kohler / Viking /Hindware
81.	CPVC Pipes & Fittings	Supreme / Astral / Ashirvad
82.	GI Pipes	Tata / Jindal
83.	UPVC Drainage - Soil, Waste & Vent Piping	Supreme / Astral / Ashirvad
84.	UPVC Rain Water Piping	Supreme / Astral / Ashirvad
85.	R.C.C. Pipes	ISI marked.
86.	R.C.C. chamber covers.	ISI marked
87.	Brass ball valves	Zoloto / GIACOMINI / RB

S. No.	MATERIALS	MAKES
88.	Check valves	Zoloto / Kirlosar / Advance
89.	Strainers	Zoloto / Sant
90.	Butterfly Valve	Zoloto / Kirlosar
91.	Sluice Valve	Zoloto / Kirlosar
92.	Ball Float Cock	Lehri / Prayag / Normax
93.	Pressure gauge	Wika / H.Guru
94.	Foot Valve With Strainer	Normax / Kirloskar / Zoloto
95.	Water meter	Capstan
96.	Cast Iron pipes and fittings	Neco / Kapilansh
97.	Bore well submersible pumps	Kirloskar / CRI / Shakti
98.	Dewatering pumps for storm water	Grundfos / Wilo
99.	Water Transfer Pumps	Wilo / Lubi
100.	Pressure Switches	Indfoss /Switzer
101.	Fastener	Hilti / Fischer
102.	Pipe Hangers And Threaded Rods	Chilly /GMGR / Hitech
103.	HVAC	Daikin, LG, Toshiba,Mitsubishi only
104.	for Ventilation Fans	Nikotra,Krugger,System air,Ostberg only.
	FIRE FIGHTING WORK	
105.	PUMPS & MOTOR	kirloskar/Lubi/ willo
106.	PIPES	Tata/Jindal/Suryaprakash
107.	WAFER CHECK PLATE	Kartar/Newtech/Normax/Any IS EQUIVALENT

S. No.	MATERIALS	MAKES
108.	Y STRAINER	Valson/Kartar/Newtech/Arco/Any IS EQUIVALENT
109.	BUTTERFLY VALVE	Newtech/Audco/Kartar/Any IS EQUIVALENT
110.	HYDRANT VALVE	Padma/Arihant/firestone/universal
111.	HOSE REEL DRUM	Padma/Arihant/firestone/universal
112.	BALL VALVE	Audco/zoloto/kartar/Any ISI
113..	RRL HOSE PIPES	Padma/Arihant/firestone/universal
114.	BRANCH PIPE	Padma/Arihant/firestone/universal
115.	HOSE CABINET	Padma/Arihant/firestone/universal
116.	FIRE BRIGADE INLET CONNECTION	Padma/Arihant/firestone/universal
117.	PRESSURE GAUGE	H Guru
118.	PRESSURE SWITCH	Danfoss/Indofus
119.	CABLES	Polycab/RR/Finolex
120.	ELECTRICAL PANEL	L&t (Internal Equipment)
121.	SPRINKLER	HD Fire/Newtech/Any IS EQUIVALENT
122.	FLEXIBLE HOSE	HD Fire/Kartar/Newage//Any IS EQUIVALENT
123	AIR RELEASE VALVE	Newtech/Kartar/Newage/Any Equivalent
124.	EXTINGUISHER	Padma/Arihant/firestone/universal
125.	FIRE ALARM PANEL	Agni/System sensor/Apollo/schrack seconet
126.	SMOKE DETECTOR	
127.	HOOTER	
128.	MANUAL CALL POINT	

Scheedule E –

Maintenance Requirements and Defect liability

1. DEFECTS AND RECTIFICATION

For period specified as the "Defect Liability Period" for the work starts from the date of issuance of the completion certificate in accordance with para "Final Inspection and Acceptance" contractor shall remain liable for any of the works or parts thereof or equipment and fittings supplied which in the opinion of the Authority's Engineer / PMC fail to comply with the requirements of the contract or are in any way unsatisfactory or defective.

To the extent that the works and each part thereof shall at or as soon as practicable after the expiry of the above period be taken over by the Authority's Engineer / PMC in the condition required by the contract to the satisfaction of the Authority's Engineer / PMC. The contractor shall finish the work (if any) outstanding at the date of completion as soon as may be practicable after such date and shall execute all such work of repair, amendment, reconstruction, rectification and making good of defects imperfections, shrinkages or other faults as may during the period of maintenance or after its expiry be required of the contractor in writing by the Authority's Engineer / PMC as a result of an inspection made by or on behalf of the Authority's Engineer / PMC prior to the expiry of the period. All such work shall be carried out by the contractor at his own expenses if the necessity thereof shall in the opinion of the Authority's Engineer / PMC be due to the use of materials or to the neglect or failure on the part of the contractor to comply with any obligation expressed or implied on the contractor's part under the contract. If the contractor fails to do any such work as entitled to carry out such work in which the contractor should have carried out at the contractor's own cost, the Authority's Engineer / PMC shall be entitled to recover from the contractor the cost thereof or may deduct the same from the moneys that become due to the contractor. Notwithstanding the aforesaid, if the contractor remains in default, one calendar month after the Authority's Engineer / PMC has given written instructions in writing, the Security Deposit shall become payable to the NMC who will deduct the cost plus overhead expenses of such works as have been necessary to rectify the contractor's default and the balance, if any, shall be disbursed. The Contractor shall submit the operation and maintenance manual for the fruitful operation of the works. The Contractor will have a liberty to visit the operating works during the defect liability period and satisfy himself about the on-going operations in case he do not visit & a defect is observed then the Authority's Engineer / PMC's opinion shall be final & binding as to the application of defect liability

2. DEFECT LIABILITY PERIOD

Defects Liability Period from the date of certified final completion of the contract in all respect

a)	Waterproofing of Terrace, WC, Bath, Kitchen Sink, Balconies, Decks, Lift Machine Room Roof, Water Tanks, chajjas, Basement etc.	:	10 (Ten) Years
b)	Building Structure	:	10 (Ten) Years
c)	Anti-termite Treatment	:	10 (Ten) Years
d)	Seepage & Dampness through Walls	:	10 (Ten) Years
e)	Transformers	:	5 (Five) Years
f)	D.G. Sets	:	5 (Five) Years
g)	Lift / Elevators	:	5 (Five) Years
h)	Pumps & Pumping Machinery (Domestic & Fire Fighting)	:	5 (Five) Years
i)	For Balance Work	:	5 (Five) Years

In these conditions the expression "Defect Liability Period" shall mean **defect liability period of 120 months for** work covered under contract after date of completion certified by the Authority's Engineer / PMC. The Defect liability period for a particular building shall commence from the date of issuance of part Completion certificate for the individual completed building by NMC.

2.1 Completion of outstanding work and remedying defects to the intent that the works shall, at or as soon as practicable after the expiration of the Defect Liability Period be delivered to the employer in the condition required by the contract, fair wear and tear excepted, to the satisfaction of the Authority's Engineer / PMC, the contractor shall :

a) Complete the work, if any, outstanding on the date stated in the taking over certificate as soon as practicable after such date &

b) Execute all such work of amendment, reconstruction and remedying defects shrinkages or other faults as the Authority's Engineer / PMC may, during the Defects Liability Period or within 14 days after its expiration, as a result of an inspection made by or on behalf of the Authority's Engineer / PMC prior to its expiration, instruct the contractor to execute.

2.2 Cost of remedying defects all work shall be executed by the Contractor at his own cost if the necessity thereof is, in the opinion of the Authority's Engineer / PMC, due to :

(a) The use of materials, plant or workmanship not in accordance with the contract,

(b) The neglect or failure on the part of the Contractor to comply with any works, If in the opinion of the Authority's Engineer / PMC, such necessity is due to any other cause, he shall determine an addition to the contract price and shall notify the contractor accordingly with a copy to the employer.

2.3 Contractor's failure to carryout instructions in case of default on the part of the Contractor in carrying out such instruction within a reasonable time, the employer shall be entitled to employ and pay other persons to carry out the same and if such work is work which in the opinion of the Authority's Engineer / PMC, the contractor was liable to do at his own cost under the Contract, then all costs consequent thereon or incidental thereto shall, after due consultation with the Employer and the Contractor, be determined by the Authority's Engineer / PMC and shall be recoverable from the contractor by the Employer and may be deducted by the Authority's Engineer / PMC shall notify the contractor accordingly with a copy to the employer.

2.4 Contractor to search, if any defect, shrinkage or other fault in the works appears at any time prior to the end of the Defects Liability Period the Authority's Engineer / PMC may instruct the contractor with copy to the Employer to search under the directions of the Authority's Engineer / PMC for the cause thereof. Unless such defect, shrinkage or other fault is one for which the contractor is liable under

2.5 Employer and the contractor, determine the amount in respect of the costs of such search incurred by the contractor, which shall be added to the Contract Price and shall notify the contractor accordingly, with a copy to the employer. If such defect, shrinkage or other fault is one for which the contractor is liable, the cost of the work carried out in searching as aforesaid shall be borne by the Contractor and he shall in such case remedy such defect, shrinkage or other fault at his own cost in accordance with the provision of Clause 17.

APPENDIX – A

GUARANTEE BONDS

GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF STONE WORK/ TILE WORK.

The agreement made this..... day of ..... Two Thousand .....between.....S/o .....(hereinafter called the GUARANTOR on the one part) and the President of India (hereinafter called the Government on the other part)

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated.....and

made between the GUARANTOR ON THE ONE PART AND the Government on the other part whereby the contractor inter alias undertook to render the work in the said contract structurally stable , workmanship, finishing and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable and guaranteed against faulty workmanship, finishing and materials.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable after the expiry of maintenance period prescribed in the contract for the minimum life of five years to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

The decision of the Authority's Engineer / PMC with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-in- Charge calling upon him to rectify the defects failing which the work shall be got done by the Department by some other contractor at the Guarantor's cost and risk. The decision of the Authority's Engineer / PMC as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects, commits breach there under, then the guarantor will indemnify the principal and his successor against all loss, damage, cost expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and or cost incurred by the Government, the decision of the Authority's Engineer / PMC will be final and binding on both the parties.

IN WITHNESS WHEREOF these presents have been executed by the obligator ..... and ..... by ..... for and on behalf of the President of India on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of :-

1. .....
2. .....

SIGNED FOR AND BE HALF OF THE PRESIDENT OF INDIA

BY..... in the presence of:-

1..... 2.....

APPENDIX - B

GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER-PROOFING WORKS AND ANTI TERMITE WORKS

The agreement made this..... day of ..... Two Thousand .....betwe en

.....S/o ..... (hereinafter called the GUARANTOR on the one part) and

the PRESIDENT OF INDIA (hereinafter called the Government on the other part)

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated.....and

made between the GUARANTOR ON THE ONE PART AND the Government on the other part whereby the contractor inter alia undertook to render the building and structures in the said contract completely water and leak-proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain water and leak proof, for Ten years from the date of giving water proofing treatment.

NOW THE GUARANTOR hereby guarantee that work executed by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be Ten years to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

The decision of the Authority's Engineer / PMC with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects and in case of any defect being found render the building water proof to the satisfaction of the Authority's Engineer / PMC calling upon him to rectify the defects failing which the work shall be got done by the Department by some other contractor at the Guarantor's cost and risk. The

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decision of the Authority's Engineer / PMC as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to execute the water proofing or commits breach there under, then the guarantor will indemnify the principal and his successor against all loss, damage, cost expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and or cost incurred by the Government, the decision of the Authority's Engineer / PMC will be final and binding on both the parties.

IN WITNESS WHEREOF these presents have been executed by the obligator.....and

..... by.....for and on behalf of the PRESIDENT OF INDIA on the day, month and year

first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of:-

1.....

2.....

SIGNED FOR AND BEHALF OF THE PRESIDENT OF INDIA

BY..... in the presence of :-

1. .....

2. .....

APPENDIX - C

GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF SANITARY INSTALLATIONS / WATER SUPPLY / DRAINAGE WORK AND ALUMINIUM WORK

The agreement made this..... day of ..... Two Thousand .....betw een.....S/o .....(hereinafter called the GUARANTOR on the one part) and the PRESIDENT OF INDIA (hereinafter called the Government on the other part)

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated ..... and made between the GUARANTOR ON THE ONE PART AND the Government on the other part, whereby the contractor inter alia, undertook to render the work in the said contract structurally stable, leak proof and sound material, workmanship, anodizing, colouring, sealing etc.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable, leak proof and guaranteed against faulty material and workmanship, defective anodizing / Powder coat colouring and finishing for ..... years from the date of completion of work.

NOW THE GUARANTOR hereby guarantee that work executed by him will be free from any leakage, seepage, cracks in pipes and guaranteed against faulty material and workmanship, defective galvanizing for five years to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

The decision of the Authority's Engineer / PMC with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects and in case of any defect to satisfaction of Authority's Engineer / PMC at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Authority's Engineer / PMC calling upon him to rectify the defects failing which the work shall be got done by the Department by some other contractor at the guarantor's cost and risk. The decision of the Authority's Engineer / PMC as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all defects or commits breach there under, then the guarantor will indemnify the principal and his successor against all loss, damage, cost expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the

amount of loss and/or damage and or cost incurred by the Government, the decision of the Authority's Engineer / PMC will be final and binding on both the parties.

IN WITHNESS WHEREOF these presents have been executed by the obligator.....

..... and..... by ..... for

and on behalf of the

PRESIDENT OF INDIA on the day, month and year

first above written... SIGNED, sealed and delivered by

OBLIGATOR in the presence of :-

1. .....

2. .....

SIGNED FOR AND ON BE HALF OF THE PRESIDENT OF INDIA

BY..... in the presence of:-

1. .....

2. .....

SCHEDULE F:

APPLICABLE PERMITS

PERMITS, FEES, TAXES & ROYALTIES

Unless otherwise provided in the contract documents, the contractor shall secure and pay for all permits, Government fees and licenses necessary for the execution and completion of the works. The contractor shall pay all duties including GST, Works contract tax, local taxes, income tax, and any other taxes Govt. Royalties and any other levies required by law including all taxes. The NMC authorities will not take any responsibility of refund of such taxes/fees and in case of disputes between taxing authority and the contractor, the NMC & Authority's Engineer / PMC and its officers shall be indemnified by the Contractor. Any violation, in the legal provisions of taxes, duties, permits and fees, carried out by the Contractor and detected subsequently shall be the sole responsibility of the Contractor and his legal heirs.

The Bidder shall obtain all sanctions and permits required for the above said works from all the relevant authorities before & after the execution of the works. On completion of the work, the Bidder shall obtain N.O.C from concerned authorities. The original of the same shall be delivered to the Authority through The Engineer's Representative. The Bidder shall be liable to furnish the list of authorized licensed persons/ employed/ deputed to carry out the works/ perform the assigned duties to fulfill the requirement.

Schedule-G

(See Clauses C Volume II)

FORM OF BANK GUARANTEE

Annex-I
(See Clauses C Volume II)

Performance Security

To,
Executive Engineer, North
Mumbai (P.W.) Division,
Andheri West, Mumbai-
400058.

Form of Bank Guarantee for Performance Security

In Consideration of the Nagpur Municipal Corporation (herewith called "the Employer") having agreed to exempt ..... (herewith called "the Contractor") from depositing with the Nagpur Municipal Corporation. The sum of INR .....(Rupees ..... Only) being the amount of Performance Security payable by the Contractor to the Nagpur Municipal Corporation. under the terms and conditions of the contract made between the Nagpur Municipal Corporation. of the one part and the Contractor of the other part (hereinafter to as "the said Contract") for (describe the work) as security for due observance and performance by the Contractor of the terms and conditions of the said contract on the Contractor furnishing to the Nagpur Municipal Corporation. a Guarantee in the prescribed form of a Nationalized Bank in India being in fact these presents in the like sum of INR ..... (Rupees ..... only).

We ..... Bank / Limited registered in India under ..... Act and having our local head Office at ..... In India do hereby:

1. Guarantee to the Nagpur Municipal Corporation:
   a) Due performance and observance by the Contractor of terms, covenants and conditions on the part of the Contractor in the said Contract.

AND

   b) Due and punctual payment by the Contractor to the Nagpur Municipal Corporation. of all sums of money, losses, damages, costs charges, penalties and expenses payable to the Nagpur Municipal Corporation by the Contractor under or in respect of the said Contract

2. Undertake to pay to the Nagpur Municipal Corporation. on demand without any demur and notwithstanding any dispute or disputes raised by the Contractor (s) in any suit or proceeding filed in any court or tribunal relating thereto the said sum Rs..... (Rupees ..... only) or such lesser sum as may be demanded by the Nagpur Municipal Corporation., from us our liability hereunder being absolute and unequivocal. Any such demand shall be conclusive as regards the amount due and payable by Bank under this guarantee.

3. Agree that

a) The guarantee herein contained shall remain in full force and effect during the subsistence of the said Contract and that the same will continue to be enforceable till all the dues of the Nagpur Municipal Corporation. under or by virtue of the said Contract have been duly paid and its claims satisfied discharged and till the Nagpur Municipal Corporation. certifies that the terms and conditions of the said Contract have been fully and properly carried out by the Contractor.

b) We shall not be discharged or released from the liability under this Guarantee by reasons of ;

(i) Any change in the constitution of the Bank or the Contractor;

(ii) Any agreement entered into between the Nagpur Municipal Corporation and the Contractor with or without our consent.

(iii) Any forbearance act or omission on the part of the Nagpur Municipal Corporation. or any indulgence shown by Nagpur Municipal Corporation. to the Contractor.

(iv) Any variation in the terms covenants of conditions contained in the said Contract.

(v) Any extension of time given to the Contractor.

(vi) Any other conditions or circumstances under which in law a surely would be discharged.

c) Our liability hereunder shall be joint and several with that of the Contractor as if we were the principal debtors and not merely as surely in respect of the said sum or Rs. ..... (Rupees ..... Only).

d) We shall not revoke this guarantee during its currency except with the previous consent in writing of the NMC.

e) This guarantee is encashable at local office at Mumbai with a notice to guarantee issuing Bank Branch viz _____.

4. Notwithstanding anything contained herein,

1) Our Liability under this guarantee shall not exceed Rs. .....

2) This Bank guarantee shall be valid up to ..... and encashable within further Claim period of 6 month i.e. .....

3) We are liable to pay the guarantee amount or any part thee of this Bank guarantee only and only if you serve upon us written claim or demand only.

PRAMUKH SOLVED INFRA PVT. LTD. NAGPUR

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IN WITNESS WHEREOF the Common Seal of _____
has been here into affixed the _____ day of _____ 20_

Witness
1._____

2._____

Annex - II (Schedule-G)
(See Clauses C Volume II)

Form for Guarantee for Withdrawal of Retention Money

To,
The Executive Engineer,
North Mumbai (P.W.) Division,
Andheri West, Mumbai-400058.

WHEREAS:

(A) _____ (hereinafter called the **"Contractor")** has executed an agreement (hereinafter called the "Agreement") with the "Executive Engineer, Public works department , Andheri. (the **"Authority"**) have entered into an agreement (the **"Agreement"**) for the "the **Construction of Proposed Metro Mall on Plot 1 for Orange City Street at Nagpur (Ground+8 Floors) in the state of Maharashtra on EPC (ENGINEERING PROCUREMENT AND CONSTRUCTION) Basis** ,subject to and in accordance with the provisions of the Agreement.

(B) In accordance with the Clause 7.5.1 of the Agreement, the Contractor may withdraw the retention money (hereinafter called **"Retention Money"**) after furnishing to the Authority a bank guarantee for an amount equal to the proposed withdrawal.

(C) We, ... Through our branch at ..... (The **"Bank"**) have agreed to furnish this bank guarantee (hereinafter called the **"Guarantee"**) for the amount of

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably undertakes to pay to the Authority,

upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the Authority, under the hand of an officer not below the rank of Executing Engineer in the NMC that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final, and binding on the Bank, notwithstanding any difference between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other Authority or body, or by the discharge of the Contractor for any reason whatsoever.

3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.

4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.

5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Retention Money and any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of

or relating to the Retention Money.

7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

8. The Guarantee shall cease to be in force and effect 90 (ninety) days after the end of the Defects Liability Period specified in Clauses 12.4 of the Agreement.

9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.

10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.

11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this ..... Day of ..... 20..... at .....

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

PRAFULVED INFRA PVT. LTD. NAGPUR

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(Code

Number)

(Address)

NOTES:

(i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.

(ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

SCHEDULE I –: LIST OF DRAWINGS

ORANGE CITY STREET MALL (PROJECT CODE:0019002)		DOC.INDEX : AHC_OCSP_IN_01	
TENDER ARCHITECTURAL DRAWING			
Sr. No.	**DESCRIPTION**	**DRAWING NO.**	**REMARKS**
01	LOCATION MAP	OCSP_01_AR_001	TENDER DRAWING
02	PROJECT BRIEF	OCSP_01_AR_002	TENDER DRAWING
03	PROJECT VIEW 01	OCSP_01_AR_003A	TENDER DRAWING
04	PROJECT VIEW 02	OCSP_01_AR_003B	TENDER DRAWING
05	AREA CALCULATIONS	OCSP_01_AR_004	TENDER DRAWING
06	LOWER BASEMENT PLAN	OCSP_01_AR_98	TENDER DRAWING
07	UPPER BASEMENT PLAN	OCSP_01_AR_99	TENDER DRAWING
08	SITE PLAN	OCSP_01_AR_SL_100	TENDER DRAWING
09	GROUND FLOOR PLAN	OCSP_01_AR_100	TENDER DRAWING
10	FIRST FLOOR PLAN	OCSP_01_AR_101	TENDER DRAWING
11	SECOND FLOOR PLAN	OCSP_01_AR_102	TENDER DRAWING
12	THIRD FLOOR PLAN	OCSP_01_AR_103	TENDER DRAWING
13	FOURTH FLOOR PLAN	OCSP_01_AR_104	TENDER DRAWING
14	FIFTH FLOOR PLAN	OCSP_01_AR_105	TENDER DRAWING
15	TYPICAL FLOOR PLAN (6 -7 & 8TH)	OCSP_01_AR_106	TENDER DRAWING
16	TERRACE FLOOR PLAN	OCSP_01_AR_107	TENDER DRAWING
17	ELEVATION - E1	OCSP_01_AR_200	TENDER DRAWING
18	ELEVATION - E2	OCSP_01_AR_201	TENDER DRAWING
19	ELEVATION - E3	OCSP_01_AR_202	TENDER DRAWING
20	ELEVATION - E4	OCSP_01_AR_203	TENDER DRAWING
21	FACADE WALL SECTION - 1 & 2	OCSP_01_AR_300	TENDER DRAWING
22	FACADE WALL SECTION - 3 & 4	OCSP_01_AR_301	TENDER DRAWING
23	FACADE WALL SECTION - 5 & 6	OCSP_01_AR_302	TENDER DRAWING
24	STAIRCASE DETAILS (ST-1 & ST-2)	OCSP_01_AR_400	TENDER DRAWING
25	RAMP DETAILS	OCSP_01_AR_401	TENDER DRAWING
26	UGWT DRAWING	OCSP_01_AR_402	TENDER DRAWING
27	SPECIFICATION SCHEDULE	OCSP_01_AR_005	TENDER DRAWING

MECHANICAL ELECTRICAL AND PLUMBING (MEP) DRAWING			
Sr. No.	**DESCRIPTION**	**DRAWING NO.**	**REMARKS**
01	HVAC Layout For Ground Floor	OCSP_01_MEP_100	TENDER DRAWING
02	HVAC Layout For First Floor	OCSP_01_MEP_101	TENDER DRAWING

Orange City Street Mall Project

TENDER STRUCTURAL DRAWING			
Sr. No.	DESCRIPTION	DRAWING NO.	REMARKS
01	LAYOUT OF GROUND FLOOR LEVEL	9147/102	TENDER DRAWING
02	LAYOUT OF 1ST FLOOR LEVEL	9147/103	TENDER DRAWING
03	LAYOUT OF 2ND FLOOR LEVEL	9147/104	TENDER DRAWING
04	LAYOUT OF 3RD FLOOR LEVEL	9147/105	TENDER DRAWING
05	LAYOUT OF 4TH FLOOR LEVEL	9147/106	TENDER DRAWING
06	LAYOUT OF 5TH FLOOR LEVEL	9147/107	TENDER DRAWING
07	LAYOUT OF 6TH FLOOR LEVEL	9147/108	TENDER DRAWING
08	LAYOUT OF 7TH FLOOR LEVEL	9147/109	TENDER DRAWING
09	LAYOUT OF 8TH FLOOR LEVEL	9147/110	TENDER DRAWING
10	LAYOUT OF TERRACE FLOOR LEVEL	9147/111	TENDER DRAWING
11	LAYOUT OF BRIDGE LEVEL	9147/113	TENDER DRAWING
12	SCHEDULE OF BEAM & SLABS AT GROUND FLOOR LEVEL	9147/202	TENDER DRAWING
13	SECTIONS AT GROUND FLOOR LEVEL	9147/305	TENDER DRAWING
14	SECTIONS AT GROUND FLOOR LEVEL	9147/306	TENDER DRAWING

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ORANGE CITY STREET MALL (PROJECT CODE:O019002)		DOC.INDEX : AHC_OCSP_IN_01	
03	HVAC Layout For Second & Third Floor	OCSP_01_MEP_102	TENDER DRAWING
04	HVAC Layout For Fourth Floor	OCSP_01_MEP_103	TENDER DRAWING
05	HVAC Layout For Fifth, Seventh & Eight Floor	OCSP_01_MEP_104	TENDER DRAWING
06	HVAC Layout For Sixth Floor	OCSP_01_MEP_105	TENDER DRAWING
07	Ground Floor- External Drainage Plan	OCSP_01_MEP_106	TENDER DRAWING
08	First Floor Drainage Plan	OCSP_01_MEP_107	TENDER DRAWING
09	Second & Third Floor Drainage Plan	OCSP_01_MEP_108	TENDER DRAWING
10	Fourth Floor Drainage Plan	OCSP_01_MEP_109	TENDER DRAWING
11	Fifth-Eighth Floor Drainage Plan	OCSP_01_MEP_110	TENDER DRAWING
12	Terrace Floor Drainage Plan	OCSP_01_MEP_111	TENDER DRAWING
13	Ground Floor- Water Supply Plan	OCSP_01_MEP_112	TENDER DRAWING
14	First Floor Water Supply Plan	OCSP_01_MEP_113	TENDER DRAWING
15	Second & Third Floor Water Supply Plan	OCSP_01_MEP_114	TENDER DRAWING
16	Fourth Floor Water Supply Plan	OCSP_01_MEP_115	TENDER DRAWING
17	Fifth-Eighth Floor Water Supply Plan	OCSP_01_MEP_116	TENDER DRAWING
18	Terrace Floor Water Supply Plan	OCSP_01_MEP_117	TENDER DRAWING
19	Enlarged Drainage, Water Supply Plan & Elevations	OCSP_01_MEP_118	TENDER DRAWING
20	Typical Water Supply Risers	OCSP_01_MEP_119	TENDER DRAWING
21	ELECTRICAL LAYOUT PLAN FOR GROUND FLOOR	OCSP_01_MEP_120	TENDER DRAWING
22	ELECTRICAL LAYOUT PLAN FOR FIRST FLOOR	OCSP_01_MEP_121	TENDER DRAWING
23	ELECTRICAL LAYOUT PLAN FOR 2ND & 3RD FLOOR	OCSP_01_MEP_122	TENDER DRAWING
24	ELECTRICAL LAYOUT PLAN FOR FOURTH FLOOR PLAN	OCSP_01_MEP_123	TENDER DRAWING
25	ELECTRICAL LAYOUT PLAN FOR TYPICAL FLOOR - 5TH, 7TH, 8TH FLOOR	OCSP_01_MEP_124	TENDER DRAWING
26	ELECTRICAL LAYOUT PLAN FOR TYPICAL FLOOR - 6TH FLOOR	OCSP_01_MEP_125	TENDER DRAWING
27	BASEMENT 01	OCSP_01_MEP_126	TENDER DRAWING
28	BASEMENT 02	OCSP_01_MEP_127	TENDER DRAWING
29	METER PANEL DIAGRAM	OCSP_01_MEP_128	TENDER DRAWING
30	Basement 01 -Drainage Plan	OCSP_01_MEP_129	TENDER DRAWING
31	Basement 02 - Drainage Plan	OCSP_01_MEP_130	TENDER DRAWING
32	HVAC Layout For Basement 01 & 02	OCSP_01_MEP_131	TENDER DRAWING
33	O.H.TANK, U.G. TANK, S.T PLANT & DEWATERING SUMP LAYOUT	OCSP_01_MEP_132	TENDER DRAWING

PRAFULVED INFRA PVT. LTD. NAGPUR

Schedule-J

(See Clause 10.1.3, 10.3.2)

PROJECT COMPLETION SCHEDULE

1. Project Completion Schedule

Total Construction Period is 18 months (including monsoon). During Construction period, the Contractor shall comply with the requirements set forth in this Schedule J for each of the Project Milestones and the **Scheduled Completion Date.** Within 7 (seven) days of the date of each Project Milestone, the Contractor shall notify the Authority of such compliance along with necessary particulars thereof.

2. Project Milestone-I

2.1 1/4th work in 1/4th period.

3. Project Milestone-II

3.1 1/2 Work in ½ period

4. Project Milestone-III

4.1 3/4th Work in 3/4th Period.

5. Project Milestone-IV

5.1 Full Completion of Work.

PRAFULVED INFRA PVT. LTD. NAGPUR

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Schedule- K –

Applicable Tests and Reports

1. SITE TEST

The various works envisaged in the tender needs to be tested at site during/after completion of the individual work. This testing is to be done as per the standard procedure laid down in the relevant BIS/ PWD/ NBC or any other standard being followed. The detailed specification shall also be taken into consideration while carrying out the testing. The frequency and type of test on various material and completed item shall be as per BIS norms. The sub-work wise testing required is given in Note shall be as below, which is only indicative:

SITE TESTING

Sr. No.	Materials	Type of Test
1.	Cement	Physical and chemical tests, Adulteration in Cement , Setting property and Compressive test, ,chemical analysis etc.
2.	Coarse aggregate	Sieve Analysis, Density, water absorption etc. moisture content. Flakiness Index
3.	Fine Aggregates	Sieve Analysis, Silt Content, Organic impurities etc. and moisture content.
4.	Reinforcement for R.C.C. work	Cold bend test, tension, elongation, Bond etc.
5.	Cement Concrete	Slump test, Compression test, permeability test,
6.	Other site tests	As when required by the Authority's Engineer / PMC/E-I-C

Note : Coarse & Fine Aggregates should also be tested for Aggregate – Alkali reactivity from an approved laboratory.

Contractor shall provide all facilities to conduct various test as per MoRT&H / IS on site as specified at his own cost & no extra payment shall be made.

SPECIAL CONDITIONS FOR QUALITY CONTROL TESTS AND FREQUENCY

Overall quality of the work depends on the quality of ingredient material being used in the work and exercising adequate control over it. It is therefore prime responsibility of the

Contractor to get the ingredient material and product tested strictly as per the frequencies stipulated in the Annexure.

The Quality Control test shall be carried out at various stages of work wise selection of material to be procured for work, acceptance of procured material before its use on the work, in view of its strength, durability, serviceability etc. and as directed by Authority's Engineer / PMC for any other reason of public interest.

The entire charges towards testing such as sampling, carrying samples to Lab testing of samples etc. shall be borne by the Contractors.

The right of acceptance/rejection of material/work done specified above is reserved by Authority's Engineer / PMC in view of non-confirmation to frequency of testing.

In case of failure to observe the frequency of testing by the contractor the Engineer- in-charge will be at liberty to recover testing charges fixed by the NMC at penal rate. The penal rate will be two times the prevailing testing charges.

SAMPLES AND TESTING MATERIALS

(A) All material to be used on civil construction work shall be got approved in advance from the Authority's Engineer / PMC and for furniture work wood, plywood, laminates, veneer etc. from Architect and Authority's Engineer / PMC and shall pass the lest and / or analysis required by him which will be :

(i) As specified in the specification for the items concerned and / or
(ii) ISI Specifications (whichever and wherever applicable) or
(iii) Such recognized specifications acceptable to Authority's Engineer / PMC as equivalent there to or in absence or such authorized specification.
(iv) Such requirement test and / or. analysis as may be specified by the Engineer - in-charge in order of precedence given above.

(B) The contractor shall at his risk and cost make all arrangements and / or shall provide for all such facilities as the Authority's Engineer / PMC may require for collecting, preparing required number of samples for tests or for analysis at such time and to such place or places as may be directed by the Authority's Engineer / PMC and bear all charges and cost of testing. Such. samples shall also be deposited with the Authority's Engineer / PMC.

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(C) The contractor shall if and when required, submit at his cost the samples of materials to be tested or analyzed and if, so directed shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and the materials, finally accepted by the Authority's Engineer / PMC.

(D) The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of the materials.

(E) The contractor or his authorized representative will be allowed to remain present in the departmental laboratory while testing samples furnished by him. However the results of all the tests carried out in the departmental laboratory in the presence or absence of the contractor or his authorized representative will be binding on the contractor.

(F) The contractor shall at his own cost set up laboratory to carry out the routine tests of materials which are to be used on the work the tests will have to be carried out either in his field laboratory or in an approved laboratory.

(G) In case of material procured by the contractor, testing as required by the codes and specifications shall be arranged by him at his own cost. Testing shall be done in the presence of authorized representative of the Engineer-in- charge at the nearest laboratory If additional testing other than as required b) specification is ordered, the testing charges, shall be borne by the Department, if the test results are satisfactory and by the contractor if the same are not satisfactory.

(H) In case of materials supplied by the Government, if the contractor demands, certain testing, the charges thereof shall be paid by contractor if the testing results are satisfactory and by the Department if the same are not satisfactory.

FREQUENCY CHART FOR TESTING OF MATERIALS

Sr. No.	Material	Test	Frequency of Testing	Remark
1	Sand	i)FinenessModulusii) SiltContent	Atthebeginningandifthereischangei n source.	
2	Metal	i) Crushingalue ii) Impactvalue iii)Abrasionvalue iv)Waterbsorption v) FlakinessIndex vi) Strippingvalue vii)Gradation	Onetest per200 Cu.M.orparttheреof.	PWD Hand Book I.S.2386 Part- II
3	Cement Concrete	i) CompressiveStrength	Upto5Cu.M. -1set 6-15 Cu.M. -2sets 16-30 -3sets 31-50 -4sets 51&above -4sets +Oneadditionalset foreachadditional50 Cu.M.orparttheреof.	M.O.S.T. Specificati on 1716.
4	Cement	i) Comp.Strength ii) Initialsettingtime iii)Finalsettingtime iv) SpecificGravity v)Soundness vi)Fineness	Onetestforeach consignmentof50 M.T.(1000bags)or parttheреof. But minimumonetestfor eachconsignment.	I.S.269 12269
5	Masonary Stone	i) Compressive Strength ii) Crushing value	One test for each source or 100 Cubic Metre.	
6	Brick	i) Crushing Strength ii) Water Absorption	One set of 15 Bricks for 3000 Numbers.	
7	Manglore tiles	i) Breaking Load Water Absorption	One set of 18 Mangalore tiles for every 50000 Numbers.	
8	Flooring tiles	i) Flexural Strength Water Abosorption	One set of 18 flooring tiles for every 2000 Numbers	
9	Glazed tiles	i) Water Abosorption	One set of 18 glazed tiles for 2000 Numbers.	
10	Steet (T.M.T.)	i) Weight per metre ii) Ultimate tensile stress iii) Yield stress	One test for each Consignment	

		iv) Elongation		
Sr. No.	Material	Test	Frequency of Testing	Remark
11	Lime /Cement Stabilised soil sub-base	i) i) Quality of ii) Lime/Cement iii) Degree of iv) Pulverisation Lime/Cement content v) CBR or unconfined comprassive Strength on a set of 3 Specimen Density of compacted layer.	As per instructions of Engineer-in-charge	
12	Interlocking concrete paving block	i) Compressive strength ii) Flexural Test iii) Resistance to wear	One set of 18 Block for every 2000 numbers.	
13	Wood work (Shutters)	i) End immersion tests ii) Knife test iii) Glue adhesion test	As per instructions of Engineer-in-charge	
14	Cement Concrete	i) Mix design	One test for each Source of materials.	
15	Reinforcement Steel Bars.	i) Tensile Strength ii) % Elongation	One set of each consignment	

16. Self-Compacting Concrete – Passability through spaces test with U shape or Box shape apparatus (As directed by Authority's Engineer / PMC)

Annexure 'A'

QUALITY CONTROL TESTS

Sr.No.	Material	Test
1	Stone	i) Compressive Strength. ii) Water Absorption
2	Trap Metal	i) Crushing value. ii) Impact value. iii) Abrasion value. iv) Water Absorption. v) Flakiness Index & Elongation index vi) Gradation
3	Bricks	i) Crushing Strength. ii) Water Absorption.
4	Flooring Tiles	i) Flexural strength ii) Water Absorption
5	Glazed Tiles	i) Water Absorption
6	Cement	i) Compressive Strength ii) Initial setting time. iii) Final setting time. iv) Specific Gravity v) Soundness vi) Fineness vii) Std. Consistency
7	Steel	i) Weight per meter. ii) Ultimate Tensile stress. iii) Yield stress iv) Elongation v) Bend Test.
8	Interlocking concrete paving block	i) Compressive Strength ii) Flexural Test iii) Resistance to wear
9	Wood work (shutters)	i) End immersion tests ii) Knife test iii) Glue adhesion test
10	Cement Concrete	i) Mix design ii) Compressive strength
11	Structural steel	i) Weight/Running metre
12	Sand	i)Water absorption & specific Gravity ii) Fineness Modulus iii) Slit Content iv) Bulk age
13	Water	i) P.H. Value for water ii) Chloride & Sulphate content.

Schedule-L

(See Clause 12.2 and 12.4)

PROVISIONAL CERTIFICATE

1 I/We,..... (Name of the Authority Engineer), acting as Authority Engineer, under and in accordance with the Contract Agreement Dated..... (the "Agreement"), for the **Construction of Proposed EWS Housing on Construction of Proposed Metro Mall on Plot 1 for Orange City Street at Nagpur (Ground+8 Floors) in the state of Maharashtra on Design, Build ,Finance, Operate and Sale basis"** through.....(Name of Contractor), hereby certify that the Tests specified in Article 14 and Schedule-I of the Agreement have been undertaken for the Project/section of the Project to determine compliance thereof with the provisions of the Agreement.

2 Construction Works forming part of the Project/section of the Project that were found to be incomplete and/or deficient have been specified in the Punch List appended hereto, and the Concessionaire has agreed and accepted that it shall complete and/or rectify all such works in the time and manner set forth in the Agreement. [Some of the incomplete works have been delayed as a result of reasons attributable to the Authority or due to Force Majeure and the Provisional Certificate cannot be withheld on this account. Though the remaining incomplete works have been delayed as a result of reasons attributable to the Concessionaire,][1] I/We am/are satisfied that having regard to the nature and extent of such incomplete works, it would not be prudent to withhold commercial operation of the Project/section of the Project, pending completion thereof.

3 In view of the foregoing, I/We am/are satisfied that the Project/section of the Project can be safely and reliably placed in commercial service of the Users thereof, and in terms of the Agreement, the Project/section of the Project is hereby provisionally declared fit for entry into commercial operation on this the ..... day of..... 20

ACCEPTED, SIGNED, SEALED AND DELIVERED	SIGNED, SEALED AND DELIVERED
For and on behalf of	For and on behalf of
CONTRACTOR by (Signature)	Authority's Engineer by: (Signature)

COMPLETION CERTIFICATE

1 I/We,..... (Name of the Authority Engineer), acting as Authority Engineer, under and in accordance with the Contract Agreement Dated..... (the "Agreement"), for the **Construction of Proposed EWS Housing on Construction of Proposed Metro Mall on Plot 1 for Orange City Street at Nagpur (Ground+8 Floors) in the state of Maharashtra on Design, Build ,Finance, Operate** and **Sale basis"** through.....(Name of Contractor), hereby certify that the Tests specified in Article 14 and Schedule-I of the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement, and I/We am/are satisfied that the Project can be safely and reliably placed in commercial service of the Users thereof.

2 It is certified that, in terms of the aforesaid Agreement, all works forming part of the Project have been completed, and the Project is hereby declared fit for entry into commercial operation on this the day of 20

SIGNED, SEALED AND DELIVERED For
and on behalf of

Authority's Engineer by:
(Signature)
(Name)
(Designation)
(Address)

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Schedule M –

Penalties and Payment reduction for non-compliance

1. LIQUIDATED DAMAGES

Liquidated Damages for the delay in completion of the work due to reasons attributable to the Contractor after taking into consideration approved extension of time, if any an amount equivalent to 0.5% of the contract value will be deducted from amount payable for delay of every week or part thereof subject to maximum of 5% of contract value.

2. PENALTY FOR DELAY

Time is the essence of this Contract and hence the completion date stipulated above will be strictly adhered to. However, in case of delay, for each day of delay beyond the specified time schedule of milestones , the Contractor will be liable to pay a penalty as below

- For each day 0.08% of Contract Price per day of delay to Maximum 10 % of Contract Price.

This penalty will be reviewed & levied at every three month for particular milestone. If the delay is recovered subsequently, the deducted penalty will be refunded to the Contractor.

On Completion of work, either penalty for delay or Liquidated Damages will be applicable.

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SCHEDULE-N

(See Article 18)

AUTHORITY'S ENGINEER

1. **Terms of Reference**

The Terms of Reference for the Authority's Engineer (the "TOR") shall Substantially conform with Annex-I to this Schedule N.

Annex – I

(Schedule - N)

TERMS OF REFERENCE FOR AUTHORITY'S ENGINEER

1. Scope

1.1 These Terms of Reference (the "**TOR**") for the Authority's Engineer are being specified pursuant to the EPC Agreement dated..... (The "**Agreement**), which has been entered into between the "Executive Engineer, Public works department , North Mumbai Division, Andheri, Mumbai. (the "**Authority**") and .....(the "**Contractor**") for **Construction of Proposed Metro Mall on Plot no1 for Orange City Street at Nagpur (Ground+8 Floors) in the state of Maharashtra on Design, Build ,Finance, Operate** and **Sale** basis and a copy of which is annexed hereto and marked as Annex-A to form part of this TOR.

The TOR shall apply to construction and maintenance of the Project.

2. Definitions and interpretation

2.1 The words and expressions beginning with or in capital letters and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.

2.2 References to Articles, Clauses and Schedules in this TOR shall, except where the context otherwise requires, be deemed to be references to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.

3. General

3.1 The Authority's Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.

3.2 The Authority's Engineer shall perform the duties and exercise the authority in accordance with the provisions of this Agreement, but subject to obtaining prior written approval of the Authority before determining:

(a) Any Time extension;

(b) Any additional cost to be paid by the Authority to the Contractor;

(c) The Termination Payment; or

(d) Any other matter which is not specified in (a), (b) or (c) above and which creates an obligation or liability on either Party for a sum exceeding Rs. 5,000,000 (Rs. fifty lakh).

3.3 The Authority's Engineer shall submit regular periodic reports, at least once every month, to the Authority in respect of its duties and functions under this Agreement. Such reports shall be submitted by the Authority's Engineer within 10 (ten) days of the beginning of every month.

3.4 The Authority's Engineer shall inform the Contractor of any delegation of its duties and responsibilities to its suitably qualified and experienced personnel; provided, however, that it shall not delegate the authority to refer any matter for the Authority's prior approval.

3.5 The Authority's Engineer shall aid and advise the Authority on any proposal for Change of Scope.

3.6 In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the authority's Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature.

4. **Construction Period**

4.1 During the Construction Period, the Authority's Engineer shall review the Drawings furnished by the Contractor along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys, and the recommendations of the Safety Consultant. The Authority's Engineer shall complete such review and send its observations to the Authority and the Contractor within 15 (fifteen) days of receipt of such Drawings; provided, however that in case of a Structure, the aforesaid period of 15 (fifteen) days may be extended up to 30 (thirty) days. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.

4.2 The Authority's Engineer shall review any revised Drawings sent to it by the Contractor and furnish its comments within 10 (ten) days of receiving such Drawings.

4.3 The Authority's Engineer shall review the Quality Assurance Plan submitted by the

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Contractor and shall convey its comments to the Contractor within a period of 21 (twenty one) days stating the modifications, if any, required thereto.

4.4 The Authority's Engineer shall complete the review of the methodology proposed to be adopted by the Contractor for executing the Works, and convey its Comments to the Contractor within a period of 10 (ten) days from the date of receipt of the proposed methodology from the Contractor.

4.5 The Authority's Engineer shall review the monthly progress report furnished by the Contractor and send its comments thereon to the Authority and the Contractor within 7 (seven) days of receipt of such report.

4.6 The Authority's Engineer shall inspect the Construction Works and the Project Site and shall submit a monthly Inspection Report bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. In particular, the Authority's Engineer shall include in its Inspection Report, the compliance of the recommendations made by the Safety Consultant.

4.7 The Authority's Engineer shall conduct the pre-construction review of manufacturer's test reports and standard samples of manufactured Materials, and such other Materials as the Authority's Engineer may require.

4.8 For determining that the Works conform to Specifications and Standards, the Authority's Engineer shall require the Contractor to carry out, or cause to be carried out, tests at such time and frequency and in such manner as specified in the Agreement and in accordance with Good Industry Practice for quality assurance. For purposes of this Paragraph 4.9, the tests specified in the Schedule K or any modification/ substitution thereof shall be deemed to be tests conforming to Good Industry Practice for quality assurance.

4.10 The Authority's Engineer shall test check at least 20 (twenty) percent of the quantity or number of tests prescribed for each category or type of test for quality control by the Contractor.

4.11 The timing of tests and the criteria for acceptance/ rejection of their results shall be determined by the Authority's Engineer in accordance with the Quality Control Manuals. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Contractor for its own quality assurance in accordance with Good Industry Practice.



4.12 In the event that results of any tests conducted establish any Defects or deficiencies in the Works, the Authority's Engineer shall require the Contractor to carry out remedial measures.

4.13 The Authority's Engineer may instruct the Contractor to execute any work which is urgently required for the safety of the Project site, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work required on account of a Force Majeure

4.14 In the event that the Contractor fails to achieve any of the Project Milestones, the Authority's Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Authority's Engineer shall determine that completion of the Project is not feasible within the time specified in the Agreement, it shall require the Contractor to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Contractor, the Authority's Engineer shall review the same and send its comments to the Authority and the Contractor forthwith.

4.15 The Authority's Engineer shall obtain from the Contractor a copy of all the Contractor's quality control records and documents before the Completion Certificate is issued pursuant

4.16 Authority's Engineer may recommend to the Authority suspension of the whole or part of the Works if the work threatens the safety of the Users. After the Contractor has carried out remedial measure, the Authority's Engineer shall inspect such remedial measures forthwith and make a report to the Authority recommending whether or not the suspension hereunder may be revoked.

4.17 In the event that the Contractor carries out any remedial measures to secure the safety of suspended works and Users, and requires the Authority's Engineer to inspect such works, the Authority's Engineer shall inspect the suspended works within 3 (three) days of receiving such notice, and make a report to the Authority forthwith, recommending whether or not such suspension may be revoked by the Authority.

4.18 The Authority's Engineer shall carry out, or cause to be carried out, all the Tests specified in Schedule K and issue a Completion Certificate or Provisional Certificate, as the case may be. For carrying out its functions under this Paragraph Schedule N And all matters incidental thereto, the Authority's Engineer shall act under and in accordance with the

provisions of Article 18 and Schedule N.

5. Maintenance Period

5.1 The Authority's Engineer shall aid and advise the Contractor in the preparation of its monthly Maintenance Programme and for this purpose carry out a joint monthly inspection with the Contractor.

5.2 The Authority's Engineer shall undertake regular inspections, at least once every month, to evaluate compliance with the Maintenance Requirements and submit a Maintenance Inspection Report to the Authority and the Contractor.

5.3 The Authority's Engineer shall specify the tests, if any, that the Contractor shall carry out, or cause to be carried out, for the purpose of determining that the Project is in conformity with the Maintenance Requirements. It shall monitor and review the results of such tests and the remedial measures, if any, taken by the Contractor in this behalf.

5.4 In respect of any defect or deficiency referred to Volume II Article 14 the Authority's Engineer shall, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards and shall also specify the time limit for repair or rectification of any deviation or deterioration beyond the permissible limit.

6. Determination of costs and time

6.1 The Authority's Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.

6.2 The Authority's Engineer shall determine the period of Time Extension that is required to be determined by it under the Agreement.

6.3 The Authority's Engineer shall consult each Party in every case of determination in accordance with the provisions of Clause 18.20

7. Other duties and functions

The Authority's Engineer shall perform all other duties and functions as specified in the Agreement.

8. Miscellaneous

8.1 A copy of all communications, comments, instructions, Drawings or Documents sent by the Authority's Engineer to the Contractor pursuant to this TOR, and a copy of all the test results with comments of the Authority's Engineer thereon, shall be furnished by the

Authority's Engineer to the Authority forthwith.

9.2 The Authority's Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.

9.3 Within 90 (ninety) days of the Project Completion Date, the Authority's Engineer shall obtain a complete set of as-built Drawings, in 2 (two) hard copies and in micro film form or in such other medium as may be acceptable to the Authority, reflecting the Project Details as actually designed, engineered and constructed, including an as-built survey illustrating the details of the Project and setback lines, if any, of the buildings and structures forming part of Project Facilities; and shall hand them over to the Authority against receipt thereof.

9.4 The Authority's Engineer, if called upon by the Authority or the Contractor or both, shall mediate and assist the Parties in arriving at an amicable settlement of any Dispute between the Parties.

9.5 The Authority's Engineer shall inform the Authority and the Contractor of any event of Contractor's Default within one week of its occurrence.



SCHEDULE - O

Forms of Payment Statements

Schedule- P

(See Article 20)

Insurance

From commencement to completion of the work and during defect liability period, the contractor shall take full responsibility for the care thereof and for taking precautions to prevent loss or damage and to minimize loss or damage to the greatest extent possible and shall be liable for any damage or loss that may happen to the works or any part thereof from any cause whatsoever and shall at his own cost repair and make good the same so that at completion of defect liability of the works shall be in good order & condition & in conformity in every respect with requirement of the authority. Without limiting the obligations and responsibilities under this condition the Contractor shall insure the works (from commencement to completion) and for defect liability period, the Tools & Plants, whatsoever, hired to the Contractor and all materials at site, to their full value against the risk or loss or damage from whatever cause arising other than the expected Risks. The said insurance shall be in the joints names of owner and the Contractor shall deposit with the Authority's Engineer / PMC the said policy or policies. The Contractor shall get Contractor's All risk (CAR) policy for the full amount of contract from approved Insurance Company (Preferably nationalized) up to defect liability period. The premium shall be paid promptly by the contractor. All moneys payable by the insurers under such policy or policies shall be recovered by owner and shall be paid to the Contractor in installments by the Authority's Engineer / PMC for the purpose of rebuilding or replacement or repair of the works & or goods destroyed or damaged as the case may be. The Contractor shall indemnify and keep indemnified the owner against all losses and claims for injuries or damage to any person or any property whatsoever which may arise out of or in consequence of the construction and maintenance of the works and against all claims, demands, processing damages, costs charges and expenses whatsoever in respect of or in relation there to provided always that nothing herein continued shall be deemed to render the Contractor liable for or in respect of or to indemnify the owner against any compensation or damage caused by the expected Risks.

Before commencing execution of the work, the Contractor shall without in any way limiting his obligations and responsibilities under his condition, insure against any damage, loss or injuries which may occur to any property, or to any person (including any employee of owner) by or arising out of carrying out of the Contract.

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The Contractor shall at all times, indemnify the owner against all claims, damages or compensation under the provision of payment of Wages act 1936, Minimum Wages Act 1948, Employer's Liability Act 1938, the Workman's Compensation Act 1923, Industrial Disputes Act 1947, and the Maternity Benefit Act 1961, the Bombay Shop and Establishment Act 1947 or any other industrial or labour law applicable to the workman, or any modifications thereof or any other law relating thereto and rules made there under from time to time or as consequence of any accident or injury to any workman or other persons in or about the works, whether in the employment of the Contractor or not, save and except where such accident or injury has result from any act of owner their agents or servants and also against all cost, charges and expenses of any suit, action or proceedings arising out of such accident or injury and against all sum or sums which may with the consent of the Contractor be paid to compromise or compound any such claim. Without limiting his obligations and liabilities as above provided, the contractor shall insure against all claims, damage or compensation payable under the Workmen's Compensation Act 1923 or any modification thereof any other law relating thereto.

The aforesaid insurance policy/policies shall provide that they shall not be cancelled till the Authority's Engineer / PMC has agreed to their cancellation.

The Contractor shall prove to the Authority's Engineer / PMC from time to time that he has taken out all the insurance policies referred to above and has paid the necessary premiums for keeping the policies alive till expiry of the Defects Liability Period.

The Contractor shall ensure that similar insurance policies are taken out by his Sub-Contractor (if any) and shall be responsible for any claim or losses to owner resulting from their failure to obtain adequate insurance protection in connection thereof. The Contractor shall produce or cause to be produced by his Sub-Contractor (if any) as case may be, the relevant policy or policies and premium receipt as and when required by the Authority's Engineer / PMC.

If the Contractor and / or Sub-Contractor (if any) shall fail to effect and keep in force the insurance referred to above or any other insurance which he / they may be required to effect under the terms of the contract, then and in any such case, owner may without being bound to, effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by owner from any moneys due or which may become due to the Contractor or recover the same as a debt due from the Contractor. The contractor shall follow following norms and strictly adhered to;

1. **Insurance during Construction Period**

1.1 The Contractor shall effect and maintain at its own cost, from the Appointed Date till the date of issue of the last Completion Certificate, the following insurances for any loss or damage occurring on account of Non Political Event of Force Majeure, malicious act, accidental damage, explosion, fire and terrorism:

(a) insurance of Works, Plant and Materials and an additional sum of 15 (fifteen) per cent of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature; and

(b) Insurance for the Contractor's equipment and Documents brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.

1.2 The insurance under paragraph 1.1 (a) and (b) above shall cover the Authority and the Contractor against all loss or damage from whatsoever cause arising under paragraph 1.1 other than risks which are not insurable at commercial terms.

2. **Insurance for Contractor's Defects Liability**

The Contractor shall effect and maintain insurance cover for the Works from the date of issue of the Completion Certificate until the end of the Defects Liability Period for any loss or damage for which the Contractor is liable and which arises from a cause occurring prior to the issue of the Completion Certificate. The Contractor shall also maintain other insurances for maximum sums as may be required under the Applicable Laws and in accordance with Good Industry Practice.

3. **Insurance against injury to persons and damage to property**

3.1 The Contractor shall insure against its liability for any loss, damage, death or bodily injury, or damage to any property (except things insured under Paragraphs 1 and 2 of this Schedule or to any person (except persons insured under Clause 20.9), which may arise out of the Contractor's performance of this Agreement. This insurance shall be for a

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limit per occurrence of not less than the amount stated below with no limit on the number of occurrences.

The insurance cover shall be not less than the value of the Contract Price.

3.2 The insurance shall be extended to cover liability for all loss and damage to the Authority's property arising out of the Contractor's performance of this Agreement excluding:

(a) the Authority's right to have the construction works executed on, over, under, in or through any land, and to occupy this land for the Works; and

(b) Damage which is an unavoidable result of the Contractor's obligations to execute the Works.

4. Insurance to be in joint names

The insurance under paragraphs 1 to 3 above shall be in the joint names of the Contractor and the Authority.

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