



NAGPUR MUNICIPAL CORPORATION

(Office of the Superintending Engineer)
Mahanagar Palika Marg, Civil Lines, Nagpur-440001

desktop/mech.engr./tharav cable duct

No .NMC/ SE / 810 / 2014,

Date :-03 /03 / 2014

The Cable Duct Guidelines (2013)

(A) TELECOMMUNICATION CABLES / FIBRE OPTIC CABLES / COPPER CABLES ON THE ROUTE WHERE NMC TELECOMMUNICATION DUCTS ARE NOT AVAILABLE:

- (I) Henceforth, all telecommunication cables / fiber optic cables/ copper cables laying program for telecommunication purpose shall be laid through the city roads only through a special duct which shall have to be constructed by the agency laying the cable from its own resources as per the drawing/ design, specifications and scope of work given in Annexure A2, A3, E,E*,H,H*, G & G*.

The agency shall lay the no. of ducts as per their requirement only. Other parameters in the drawing/design, specifications and scope of work given in annexure E, G, G* remains unchanged.

- (II) The land under aforesaid duct shall be the property of NMC and it is the NMC that will have the sole authority to govern and regulate all future use of this duct.
- (III) The agency seeking to lay its cable along any road in the city shall be required to apply to the NMC giving complete details and maps of the work involved.
- (IV) After due scrutiny of the application, the Corporation will take suitable decision regarding grant of permission for laying the cables.
- (V) Whenever the Corporation decides to accord permission for laying of cables through any road, the agency shall be required to construct, from its own funds, a duct all along the road as per the drawing, design, specifications and scope of work given by the NMC and shall also be required to pay Rs. 610/-

per Rmt for horizontal directional drilling (HDD) method to NMC towards supervision charges. No open trenching will be allowed. In addition to this agency will require to deposit Rs. 3050/- per Rmt. as security deposit (In the form of Bank Guarantee) to NMC for restoration of road cuts/ footpath damaged by agency. After satisfactory rectification of roads/ footpath this deposit amount of security deposit will be refunded to the agency (Minimum after one year).

- (VI) The charges shall be revised upward every year by 10 (ten) percent rounded off to the next multiple of Rs. 5 (five).
- (VII) The agency shall do the twin jobs of laying the cable and closing the duct as per the specifications, in tandem, so that the work of lying of cable does not create hindrance to the traffic. All restoration of cuts/ damaged portion through Roads/ Footpath is the responsibility of cable laying agency, they should construct/restore at their own cost.
- (VIII) While executing the work, the agency shall display the necessary regret boards, caution boards and safety measures so as to avoid accidents.
- (IX) Laying of cable only by HDD method shall be permitted. In case of exceptional and unavoidable circumstance, when Horizontal Directional Drilling (HDD) process is not possible, microtrenching may be permitted. Where HDD and microtrenching both are not possible, the site shall be inspected and verified, and if there is any obstructions in HDD and microtrenching process, then the permission may be granted by competent authority for open trenching.
- (X) In normal case the department will grant permission within 20 days from the receipt of complete application form with detail route and maps of work involved.
- (XI) The agency/company is supposed to deposit the demand and execute the work within the same financial year. In case, if the agency/company failed to do so, they have to pay the difference in the demand as per the rates applicable in the next financial year.

(XII) The executing agency shall lay the ducts as per their requirement only. No additional ducts shall be laid by the agency.

(XIII) Any change in proposed cable duct policy should be applicable to the executing agency.

(XIV) Any agency asking to lay its cables through existing ducts already laid in the past will have to pay one time rent as specified below at (B).

(B) ON THE ROUTE WHERE NMC TELECOMMUNICATION DUCTS ARE AVAILABLE.

(1) One time rent for existing ducts available at present, shall be as follows.

a) On Minor Roads (i.e <18m Width as per D.P.)

i) For 0 to 1 Km – 3000- Rmt/ Duct

ii) For 1 to 5 Km – 2500- Rmt/ Duct

iii) For >5 Km – 2000- Rmt/ Duct

b) On major Roads (i.e $\geq$ 18m Width as per D.P.)

i) For 0 to 1 Km – 3500- Rmt/ Duct

ii) For 1 to 5 Km – 3000- Rmt/ Duct

iii) For >5 Km – 2500- Rmt/ Duct

(2) The agency which will use the existing duct without prior permission of NMC, ten times of One Time Rent mentioned in the cable duct guidelines, will be recovered from the agency as penal charges. If ANY company, without taking permission from NMC constructs / lay their duct, then the duct will be invariably dismantled at any cost and ten times penalty of supervision charges will be recovered from the agency. Also the defaulting company/agency shall be blacklisted.

(C) ELECTRIC CABLES:

(I) The procedure prescribed above for laying of Telecommunication cables/ Fiber Optic Cables shall also be applicable to M.S.E.D.C.L. cables with the sole

difference that the design of the duct shall be as per given in Annexure A2, A3, 'H', H* & E*

(II) On a road where a duct has already been created for laying of Telecommunication/ Fiber Optic Cables, the M.S.E.D.C.L. cable shall be laid in a different duct on the opposite side of the road.

(III) In exceptional situation and on the request of cable laying agency, if cable is required to be laid on the opposite side, reserved for MSEDCL, then the agency seeking such permission shall have to pay supervision charges (Non-Refundable) @ Rs. 1600/- Rmt to NMC. However the decision shall be taken by NMC, in consultation with MSEDCL.

(D) Minutes Of Meeting of Committee, on Dt 20/01/2012 for Permission of road cutting for laying of Cable to different agencies.

- (1) If road belongs to other department, i.e. National Highway / State PWD / NIT, in that case agency has to Submit NOC from these department by Paying their fees. Final permission will be given by NMC.
- (2) The restoration work will be monitored by the NMC and if it is not Proper, new Permission will not be granted unless and until Proper restoration is not done.

(E) Minutes of Meeting held on 10/7/2012 regarding cable duct policy for Nagpur City (630/CE/2012, dt. 12/07/2012)

HDD boring shall only be allowed at least 1.65meter below road top for all roads within city.

(F) Doubly Charges for road cutting permission on the roads other than NMC.

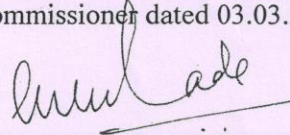
Many agencies seeking to lay their cables on the roads other than NMC, i.e. National Highway, State Highway, NIT, etc. within the city limit, has to take NOC from concerned authority by depositing their charges. And after that, final permission is given by NMC by taking the charges again as per cable duct policy. Many agencies had taken objection for this doubly charges.

In view of (F), following changes are approved.

- (1) If the road belongs to NMC, Permission for laying of cable shall be issued by NMC by depositing the charges as per cable duct policy.
- (2) If the road belongs to National Highway, State Highway, NIT, etc. within the city limit, agency has to take NOC from concerned authority by depositing their charges. And final permission will be given by NMC without taking any charges.
- (3) In both the cases, the restoration shall be done by the agency as per the cable duct guidelines of Nagpur Municipal Corporation.

Additional Instructions:

- (G) 1. The agencies seeking to lay their cable shall be allowed as per G.R. No. DIT/File-03/336, dt. 1 April 2006 along with agreement.
2. The agencies seeking to lay their cable has to deposit Duct Charges (lease rent) as per G.R. mentioned above. Hence, no need to charge additional duct charges (lease rent).
3. Laying of Cable through ducts shall be as per the guidelines of Indian Road Congress or approved renowned institution.
- (As per approval of Hon'ble Municipal Commissioner dated 03.03.2014)



Superintending Engineer,
Nagpur Municipal Corporation.

Copy to :-

- | | |
|--|---|
| 1. Hon'ble Municipal Commissioner, NMC | 11. Executive Engineer (Lighting), NMC |
| 2. Additional Commissioner, NMC | 12. Traffic Engineer, NMC |
| 3. Dy. Mpl. Commissioner, NMC | 13. Executive Engineer (Slums), NMC |
| 4. Addl. Dy. Mpl. Commissioner (I), NMC | 14. Executive Engineer (WW), NMC |
| 5. Addl. Dy. Mpl. Commissioner (II), NMC | 15. Executive Engineer (PPC), NMC |
| 6. Chief Accounts & Finance Officer | 16. All Asstt. Commissioners, Zone I to X |
| 7. City Engineer, NMC | 17. All Dy. Engrs. (PWD) |
| 8. Development Engineer, NMC | 18. All Dy. Engrs. (Head Works) |
| 9. Executive Engineer (Constn.), NMC | 19. Deputy Ebginer (IIMP) |
| 10. Executive Engineer (Projects), NMC | |

ANNEXURE-A3

SCOPE OF WORK: -

- 1) The construction of cable duct will be done as per the detailed drawings & standard specifications enclosed. RCC chambers having min. size 1.2m x 1.2 m of 200 mm thick wall of required height with SFRCC covers including frame are required to be constructed for every turning, curvature & junction crossing of the road. Maximum spacing between two chambers on straight road shall be 200 m.
- 2) Every SFRCC cover shall engrave with "NMC TELE DUCT" in case of telecommunication duct & "NMC ELECT. DUCT" for MSEB or Electrical Cable Duct.
- 3) The work should be executed with the prior permission of NMC.
- 4) During the execution of the work if any NMC property is damaged, it should be rectified by the agency at their own cost. Similarly the painting of kerb stones / Footpath etc. on both side of road is required to be done by the agency from its own resources after complete construction of duct over the entire road length affected by the laying of cable.
- 5) The route is required to be finalized by the Ward Officer of the concerned zone.
- 6) The cable ducts constructed are required to be maintained for 3 years by the executing agency.
- 7) The permission of NMC shall be compulsory for laying of any new cable for their day-to-day expansion program through the existing ducts by any agency, within the Municipal limits.
- 8) The cable duct which is to be constructed on footpath the restoration of Tiles, Curb Stones, Painting etc is all respect with maintenance of 3 year is the responsibility of the agency who is constructing the duct.
- 9) The cables which are crossing nallah, it should be constructed 1.10 m below the nallah bed and ensure no obstruction to the flow of water due to lying of the cable in nallah bed.
- 10) All debris due to cable cutting to the nallah bed is required to be removed at 10 m on both the side of nallah bed.
- 11) The all safety precaution is required to be taken by the party in respect of electrical cable line, sewer line. The repair to the damaged portion of NMC utility is the responsibility of the cable laying agency.
- 12) The time period for the construction & restoration of duct is three month from the date of permission .

-4-

**NAME OF WORK : SERVICE LANE DUCT FOR FIBER OPTIC CABLES ON ROADS
ITEM WISE DETAILED SPECIFICATIONS**

ANNEXURE-A2

Sr. No.	Description of Item	Unit	Standard Specification As Per Red Book / M.O.S.T. Specification (III rd Rev. 1998 Edition)		Additional Specification if any
			Para No.	Page No.	
1	Scarifying the existing B.T. surface in required grade/camber including conveying scarified material upto all lifts and leads	One Square meter	As directed by Engineer incharge		
2	Excavation for roadways in hard strata including dressing section to the required grade camber and side slopes and conveying the excavated materials with all lifts and lead upto 50 mtrs and spreading or stacking as directed	One cubic meter	RD2,5, of PWD Standard Specification		
3	Transportation of excavated material, dismantled material including loading and unloading and transporting to the disposal site as directed etc. complete.	One cubic meter	As directed by Engineer in charge		
	Excavated material & Scarifying material (lead - 5 Km)				
4	Filling in plinth and floors with contractors approved materials/ sand or murrum in 15 cm to 20 cm layers including watering and compaction complete.	One cubic meter	Bd A 10 of PWD Standard specification	262	
5	Providing soling using 80 mm size granite/ quartzite / gneiss/ trap metal in 15 cm layer including hand packing voids with sand / grit, ramming, watering complete.	One cubic meter	MOST Clause 404		
6	Providing and laying in situ, cement concrete M-15 of trap/granite/gneiss metal for foundation and bedding including bailing out water, plywood/steel formwork, compacting, finishing uneven and honeycombed surface, curing etc. complete. The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed).	One cubic meter	BDE-1	4/24	
7	Providing and fixing in position mild steel/ HYSD bar reinforcement of various diameter for RCC pile caps, footing, foundations, slabs, beams and columns, canopies, newels, chajjas, Lintels, pardiies, coping, fins, arches etc. as per detailed design and dr	One metric ton	Bd F 17 of PWD Standard Specification	306	

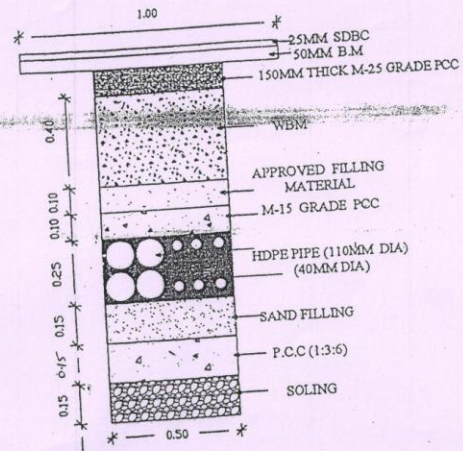
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Sr. No.	Description of Item	Unit	Standard Specification As Per Red Book / M.O.S.T. Specification (III rd Rev. 1998 Edition)		Additional Specification if any
			Para No.	Page No.	
8	Providing and casting in situ cement concrete M-20 of trap/granite/quartzite/gneiss metal for R.C.C. beams and lintels as per detailed design and drawing or as directed, including steel centering, plywood/steel formwork steel props, compaction, finish	One cubic meter	BDF-6-A	14/36	
9	Providing and fixing in position steel fibre reinforced concrete (S.F.R.C.) frame and cover of approved make including loading, unloading, transportation, all taxes, etc complete as directed by Engineer-in-Charge (20 tonnes capacity)	EACH	As directed by Engineer-in-Charge	MJP/CSR-21/77	
	90 * 60 cm size				
10	Providing and fixing 60 mm thick factory made Hydraulically pressed Mechanically vibrated and compacted precast interlocking cement concrete paving blocks in M-45 grade of approved size and shape as specified 90 mm in grey cement and top surface 10 mm in	One Square meter	As directed by Engineer-in-Charge		
11	Providing and fixing water tables in concrete M-20 grade of size 30 cm wide and 10 cm thick on M-10 cement concrete bed 15 cm thick including filling in the joints with cement mortar 1:2 cement pointing, curing etc complete as sp.	One Running meter	Bd F8 IS 456 (1978) of PWD Standards	302	
12	Providing and applying three coats of flat oil paint of approved colour and shade to internal / external plastered old / new surface including scaffolding if necessary, cleaning and preparing the surface including primer coat complete (Sample and brand)	One square meter	Bd O 7 of PWD Standard Specifications	406	
13	Supply of Oil Paint of approved colour and shade including loading and unloading etc complete	Lit		270	
14	Supply of precast polished chequered coloured cement tiles for 20 mm thick for footpath with nosing of treads moulded as per day----- etc complete.	sq. m		130	
15	Supply of precast tapering kerbs of M-20 (Single tapered divider) as per the detailed drawing including loading and unloading and stacking----- etc complete	Cum		52a(10210	
16	Supply of water tables in concrete M-20 grade of size 30 centimeter wide and 10 centimeter thick including loading and unloading and stacking--- etc complete as specified and as directed	Cum		52a(10210	

- 7 -

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DETAILS OF PROVISION OF HDPE PIPE FOR TELECOMMUNICATION /FIBRE OPTICAL /COPPER (

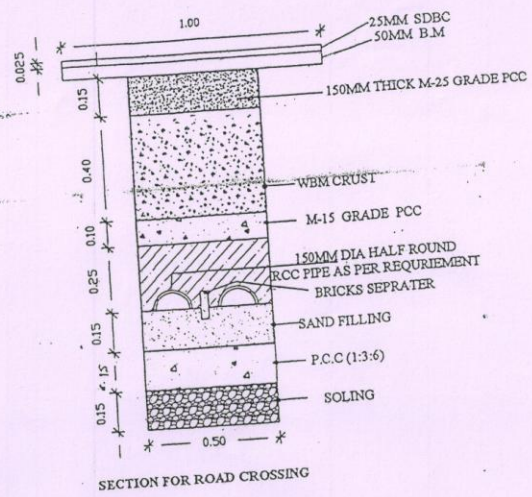


SECTION FOR ROAD CROSSING

- 8 -

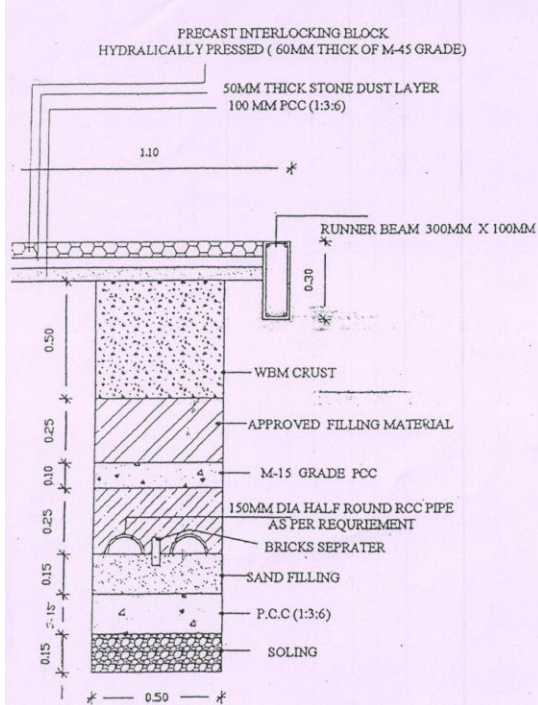
DETAILS OF PROVISION OF DUCT FOR MSEB/ELECTRICITY CABLES ON CITY ROADS

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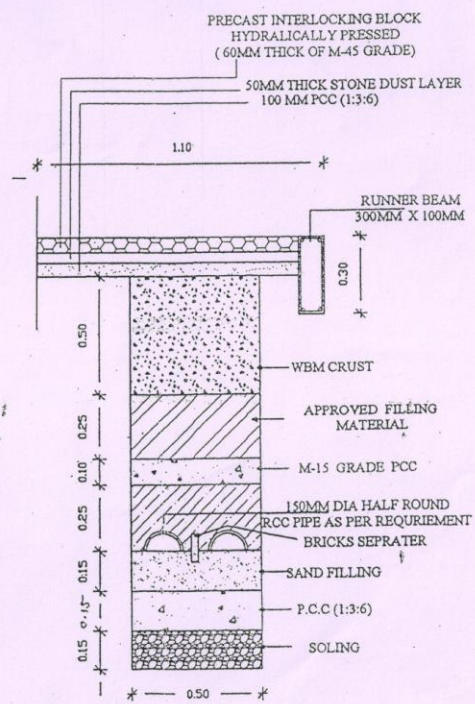


SECTION FOR ROAD CROSSING

DETAILS OF PROVISION OF DUCT FOR MSEB/ELECTRICITY CABLES ON CITY ROADS

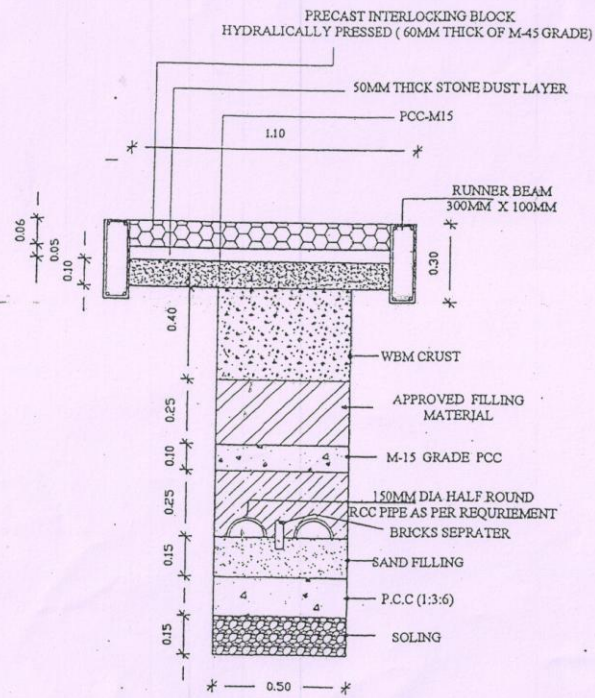


SECTION FOR IRDP ROAD & MAIN ROAD

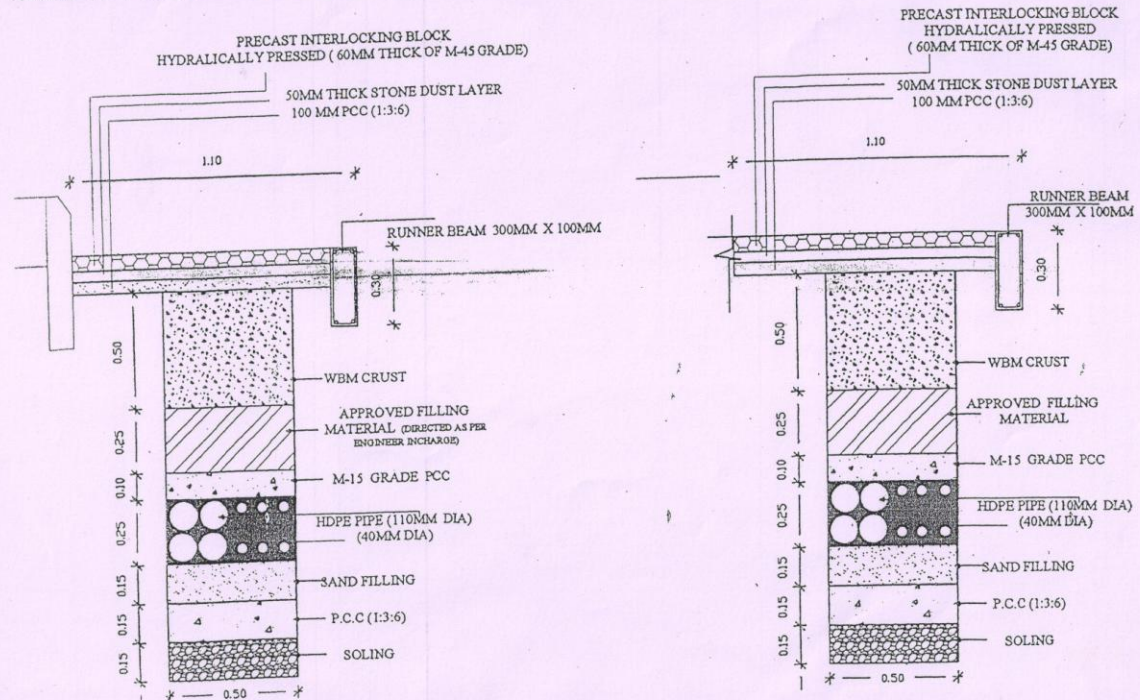


SECTION FOR INTERNAL ROAD

DETAILS OF PROVISION OF DUCT FOR MSEB/ELECTRICITY CABLES ON CITY ROADS



TAILS OF PROVISION OF HDPE PIPE FOR TELECOMMUNICATION /FIBRE OPTICAL /COPPER CABLE



DETAILS OF PROVISION OF HDPE PIPE FOR TELECOMMUNICATION /FIBRE OPTICAL /COPPER CABLE

