

Government of West Bengal
Public Works Department
Works Branch
“NABANNA” (8th floor), 325, Sarat Chatterjee Road, Howrah-711102

No.- 600-W(C)/1M-40/2022

Dated:03.10.2023

CIRCULAR

Subject: Guidelines for arriving at the road restoration charges and execution, related to laying of City Gas Distribution Network (CGDN) through roads of different specification under Public Works Department (PWD) in the State of West Bengal.

The Common Policy related to laying of City Gas Distribution Network (CGDN) through different roads in the State of West Bengal has been notified vide No. 432-W(C)/1M-40/2022 dated 26/07/2023 of Public Works Department.

The Public Works Department has formulated a Guideline for arriving at the road restoration charges and execution, related to laying of City Gas Distribution Network (CGDN) through roads of different specification under Public Works Department (PWD) in the State of West Bengal. All concerned Officials in Public Works Department is requested to follow the guideline marked as Annexure “A” for arriving at the road restoration charges and execution, related to laying of City Gas Distribution Network (CGDN) through roads of different specification under Public Works Department (PWD) in the State of West Bengal.

This Circular will take immediate effect.

Abhiswas

Joint Secretary (Roads)
Public Works Department

Dated: 03.10.2023

No.600/1(2)-W(C)/1M-40/2022

Copy forwarded for information to:

1. The Senior P.S. to the Hon'ble Minister-in- Charge to the Government of West Bengal, Public Works Department.
2. The Senior P.S. to the Secretary to the Government of West Bengal, Public Works Department.

Abhiswas

Joint Secretary (Roads)
Public Works Department

Dated:03.10.2023

No.600/2(6)-W(C)/1M-40/2022

Copy forwarded for information to:

1. The Engineer-in-Chief, Public Works Department.
2. The Chief Engineer, Head Quarter, P.W. (Roads) Directorate/ P.W. Directorate.
3. The Special Secretary & Financial Advisor, Public Works Department.
4. The Special Secretary, Public Works Department, Khadya Bhaban.
5. The Joint Secretary (P&C), Public Works Department
6. The Sr, Deputy Secretary, Public Works Department.

Abhiswas

Joint Secretary (Roads)
Public Works Department

Copy forwarded for information and necessary action to:

1) The Chief Engineer, _____ (All), P.W. Directorate/ P.W. (Roads) Directorate..

2) The Superintending Engineer, _____ (All), P.W. Directorate/ P.W. (Roads) Directorate.

3) The Executive Engineer, _____ (All), P.W. Directorate/ P.W. (Roads) Directorate.

Abhishek

Joint Secretary (Roads)
Public Works Department

Guidelines for arriving at the road restoration charges and execution, related to laying of City Gas Distribution Network (CGDN) through roads of different specification under Public Works Department (PWD) in the State of West Bengal.

Whereas the Common Policy related to laying of City Gas Distribution Network (CGDN) through different roads in the State of West Bengal has been notified vide No. 432-W(C)/1M-40/2022 dated 26/07/2023 of Public Works Department.

2. Whereas according to clause 8.5 of the said policy, in exceptional cases, if trenchless technology is not feasible, the applicant licensee may approach the State Government Departments/ Local Bodies/ State Authorities for excavation of existing black topped road (i.e. metal road). Where the gas pipeline will be laid through an open cut system, proper barricading of that area as well as proper shoring will be done and the work will be executed in such a way that minimum difficulty is faced by the traffic. The road safety and security shall be ensured by the applicant licensee as per IRC guidelines.

3. Whereas according to clause 8.6 of the said policy, in case of permanent road restoration work executed by the State Government Departments/ Local Bodies/ State Authorities, the applicant licensee shall execute the temporary restoration work in such a way that vehicular traffic can ply over it safely immediately after laying of pipe. Permanent restoration shall be undertaken by the State Government Departments/ Local Bodies / State Authorities out of road restoration cost which is deposited by the applicant licensee when Permanent restoration work will be executed according to para 5.3.2. Permanent restoration work shall be undertaken in the field preferably within a month after completion of laying of the gas pipeline for which the State Government Departments / Local Bodies / State Authorities shall make necessary tender formalities beforehand.

4. Whereas according to clause 5.4.1 of the said policy, the permanent restoration charges shall be calculated in such a manner so that the road becomes in its original condition after completion of pipe laying work. Such, if the road was in earthen condition, after completion of pipe laying it will be earthen, if the road was in hard shoulder condition, after completion of pipe laying it will be in hard shoulder condition, if the road was in black topped condition, after completion of pipe laying it will be in black topped condition as per IRC guidelines.

No restoration charges shall be levied, if the pipeline is laid on the pure earthen flank (i.e. flank is made only by earth)

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5. Whereas if the black topped/ paver block road is excavated for laying of gas pipeline, then according to IRC guidelines several investigations like traffic survey, soil survey, soil investigation etc. are required to fix up specification and minimum width for restoration purposes which will take sufficient time.

6. Whereas quick implementation of the above policy and early disposal of the applications of the different Gas Entities for laying of City Gas Distribution Network (CGDN) through different roads under the Public Works Department are essential.

7. Accordingly, it has been decided that when dismantling of the carriageway and hard shoulder of a road will become inevitable, the following guidelines mentioned in the chart may be adopted in all roads belonging to the Public Works Department. This specification of the guideline has been fixed up taking into account different approved/ sanctioned estimates which were prepared according to the IRC guidelines after conducting all necessary testing and survey.

Sl. No.	Category of road, Type of Pipe to be used, Nature of Road surface	Width of road to be dismantled/ excavated by gas entities for laying of gas pipe	Width of road to be considered by PWD for restoration charges	Minimum depth of road to be excavated by gas entities for laying of gas pipeline from top of BT surface	Work to be executed by gas entities	Specification to be considered by PWD for preparation of road restoration charges
1.	State Highways (SH), Major District Roads (MDR), Expressways, If steel pipe laid by cutting Bituminous/ Mastic road	Diameter of Pipe + 300 mm	1200 mm	Diameter of Pipe + 1000 mm	i) Leaving 700 mm from top of the existing road, Diameter of Pipe + 300 mm thick subgrade will be well compacted to ensure that the subgrade material when compacted to the density requirements as per Table 300-2 of MoRT&H shall yield the specified design CBR value of the Subgrade. Relative compaction will be not less than 97% of maximum laboratory dry density as per IS:2720 (Part8).	Compacted 350 mm GSB, 250 mm WMM, 75 DBM and 30 mm BC. Thus total 700 mm thickness.
2.	State Highways (SH), Major District Roads (MDR), Expressways, If steel pipe laid by cutting Paver Block road	Diameter of Pipe + 300 mm	1200 mm	Diameter of Pipe + 1000 mm	ii) Over this 97% compacted subgrade, Warning Mat/ Net will be laid as per PNGRB guideline.	Compacted 350 mm GSB, 250 mm WMM, 80/100 mm thick paver block as per existing road surface. Thus total 700 mm thickness.

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Sl. No.	Category of road, Type of Pipe to be used, Nature of Road surface	Width of road to be dismantled/ excavated by gas entities for laying of gas pipe	Width of road to be considered by PWD for restoration charges	Minimum depth of road to be excavated by gas entities for laying of gas pipeline from top of BT surface	Work to be executed by gas entities	Specification to be considered by PWD for preparation of road restoration charges
3.	State Highways (SH), Major District Roads (MDR), Expressways, If steel pipe laid by cutting hard shoulder	Diameter of Pipe + 300 mm	Diameter of Pipe + 300 mm	Diameter of Pipe + 1000 mm	<p>i) Leaving 300 mm from top of the existing road, Diameter of Pipe + 700 mm thick subgrade will be well compacted to ensure that the subgrade material when compacted to the density requirements as per Table 300-2 of MoRT&H shall yield the specified design CBR value of the Subgrade. Relative compaction will be not less than 97% of maximum laboratory dry density as per IS:2720 (Part8).</p> <p>ii) Over this 97% compacted subgrade, Warning Mat/ Net will be laid as per PNGRB guideline.</p>	150 mm thick compacted medium Sand + 150 mm thick compacted Jhama metal/ Laterite/ river bed materials with screening materials.
4.	State Highways (SH), Major District Roads (MDR), Expressways, If MDPE pipe laid by cutting Bituminous/ Mastic road	Diameter of Pipe + 250 mm	Diameter of Pipe + 250 mm	Diameter of Pipe + 1000 mm	Nil	Diameter of Pipe + 625 mm thick compacted coarse sand + 75 mm BSF + 300 mm Cement Concrete of grade not less than M30. Thus total Diameter +1000 mm thickness.
5.	State Highways (SH), Major District Roads (MDR), Expressways, If MDPE pipe laid by cutting Paver Block road	Diameter of Pipe + 250 mm	Diameter of Pipe + 250 mm	Diameter of Pipe + 1000 mm	Nil	Diameter of Pipe + 625 mm thick compacted coarse sand + 75 mm BSF + 300 mm Cement Concrete of grade not less than M30. Thus total Diameter +1000 mm thickness.

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Sl. No.	Category of road, Type of Pipe to be used, Nature of Road surface	Width of road to be dismantled/ excavated by gas entities for laying of gas pipe	Width of road to be considered by PWD for restoration charges	Minimum depth of road to be excavated by gas entities for laying of gas pipeline from top of BT surface	Work to be executed by gas entities	Specification to be considered by PWD for preparation of road restoration charges
6.	State Highways (SH), Major District Roads (MDR), Expressways, If MDPE pipe laid by cutting hard shoulder	Diameter of Pipe + 250 mm	Diameter of Pipe + 250 mm	Diameter of Pipe + 1000 mm	<p>i) Leaving 300 mm from top of the existing road, Diameter of Pipe + 700 mm thick subgrade will be well compacted to ensure that the subgrade material when compacted to the density requirements as per Table 300-2 of MoRT&H shall yield the specified design CBR value of the Subgrade. Relative compaction will be not less than 97% of maximum laboratory dry density as per IS:2720 (Part8).</p> <p>ii) Over this 97% compacted subgrade, Warning Mat/ Net will be laid as per PNGRB guideline.</p>	150 mm thick compacted medium Sand + 150 mm thick compacted Jhama metal/ Laterite/ river bed materials with screening materials.
7.	Other District Roads (ODR), Village Roads (VR), Rural Roads (RR), If steel pipe laid by cutting Bituminous/ Mastic road	Diameter of Pipe + 300 mm	1200 mm	Diameter of Pipe + 1000 mm	<p>i) Leaving 550 mm from top of the existing road, Diameter of Pipe + 450 mm thick subgrade will be well compacted to ensure that the subgrade material when compacted to the density requirements as per Table 300-2 of MoRT&H shall yield the specified design CBR value of the Subgrade. Relative compaction will be not less than 97% of maximum laboratory dry density as per IS:2720 (Part8).</p> <p>ii) Over this 97% compacted subgrade, Warning Mat/ Net will be laid as per PNGRB guideline.</p>	Compacted 250 mm GSB, 225 mm WMM, 50 DBM/75 BM and 30 mm BC/ 25 mm SDBC/ 20 mm PC + SC. Thus total 550 mm thickness.
8.	Other District Roads (ODR), Village Roads (VR), Rural Roads (RR), If steel pipe laid by cutting Paver Block road	Diameter of Pipe + 300 mm	1200 mm	Diameter of Pipe + 1000 mm	<p>i) Leaving 550 mm from top of the existing road, Diameter of Pipe + 450 mm thick subgrade will be well compacted to ensure that the subgrade material when compacted to the density requirements as per Table 300-2 of MoRT&H shall yield the specified design CBR value of the Subgrade. Relative compaction will be not less than 97% of maximum laboratory dry density as per IS:2720 (Part8).</p> <p>ii) Over this 97% compacted subgrade, Warning Mat/ Net will be laid as per PNGRB guideline.</p>	Compacted 250 mm GSB, 225 mm WMM, 80 mm thick paver block. Thus total 550 mm thickness.

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Sl. No.	Category of road, Type of Pipe to be used, Nature of Road surface	Width of road to be dismantled/ excavated by gas entities for laying of gas pipe	Width of road to be considered by PWD for restoration charges	Minimum depth of road to be excavated by gas entities for laying of gas pipeline from top of BT surface	Work to be executed by gas entities	Specification to be considered by PWD for preparation of road restoration charges
9.	Other District Roads (ODR), Village Roads (VR), Rural Roads (RR), If steel pipe laid by cutting hard shoulder	Diameter of Pipe + 300 mm	Diameter of Pipe + 300 mm	Diameter of Pipe + 1000 mm	<p>i) Leaving 300 mm from top of the existing road, Diameter of Pipe + 700 mm thick subgrade will be well compacted to ensure that the subgrade material when compacted to the density requirements as per Table 300-2 of MoRT&H shall yield the specified design CBR value of the Subgrade. Relative compaction will be not less than 97% of maximum laboratory dry density as per IS:2720 (Part8).</p> <p>ii) Over this 97% compacted subgrade, Warning Mat/ Net will be laid as per PNGRB guideline.</p>	150 mm thick compacted medium Sand + 150 mm thick compacted Jhama metal/ Laterite/ river bed materials with screening materials.
10.	Other District Roads (ODR), Village Roads (VR), Rural Roads (RR), If MDPE pipe laid by cutting Bituminous/ Mastic road	Diameter of Pipe + 250 mm	Diameter of Pipe + 250 mm	Diameter of Pipe + 1000 mm	Nil	Diameter of Pipe + 675 mm thick compacted coarse sand + 75 mm thick BFS + 250 mm Cement Concrete of grade not less than M30. Thus total Diameter +1000 mm thickness.
11.	Other District Roads (ODR), Village Roads (VR), Rural Roads (RR), If MDPE pipe laid by cutting Paver Block road	Diameter of Pipe + 250 mm	Diameter of Pipe + 250 mm	Diameter of Pipe + 1000 mm	Nil	Diameter of Pipe + 675 mm thick compacted coarse sand + 75 mm thick BFS + 250 mm Cement Concrete of grade not less than M30. Thus total Diameter +1000 mm thickness.

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Sl. No.	Category of road, Type of Pipe to be used, Nature of Road surface	Width of road to be dismantled/ excavated by gas entities for laying of gas pipe	Width of road to be considered by PWD for restoration charges	Minimum depth of road to be excavated by gas entities for laying of gas pipeline from top of BT surface	Work to be executed by gas entities	Specification to be considered by PWD for preparation of road restoration charges
12.	Other District Roads (ODR), Village Roads (VR), Rural Roads (RR), If MDPE pipe laid by cutting hard shoulder	Diameter of Pipe + 250 mm	Diameter of Pipe + 250 mm	Diameter of Pipe + 1000 mm	i) Leaving 300 mm from top of the existing road, Diameter of Pipe + 700 mm thick subgrade will be well compacted to ensure that the subgrade material when compacted to the density requirements as per Table 300-2 of MoRT&H shall yield the specified design CBR value of the Subgrade. Relative compaction will be not less than 97% of maximum laboratory dry density as per IS:2720 (Part8). ii) Over this 97% compacted subgrade, Warning Mat/ Net will be laid as per PNGRB guideline.	150 mm thick compacted medium Sand + 150 mm thick compacted Jhama metal/ Laterite/ river bed materials with screening materials.
13.	Restoration of pit for MDPE pipe laying by HDD method in case of carriageway portion of the road.	400 mm by 1400 mm	400 mm by 1400 mm	Diameter of Pipe + 1000 mm	Nil	Diameter of Pipe + 675 mm thick compacted coarse sand + 75 mm thick BFS + 250 mm Cement Concrete of grade not less than M30. Thus total Diameter +1000 mm thickness.

The full name of abbreviations:

GSB: Granular Sub Base, **WMM:** Wet Mix Macadam, **DBM:** Dense Bituminous Macadam, **BM:** Bituminous Macadam, **BC:** Bituminous Concrete, **SDBC:** Semi Dense Bituminous Concrete and **PC & SC:** Premix Carpet & Seal Coat, **BFS:** Brick Flat Soling.

8. If there is any requirement to excavate any extra depth as mentioned under column 5 of the above chart due to ground reality or to keep the gas pipeline in proper alignment, the said extra depth will be filled up/ restored with the same material and with the same procedure which will be used and to be adopted in the bottom most layer by the same agency as per column 6 & 7 of the chart.

9. The above guidelines are indicative for preparation of road restoration charges only.

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10. If there is any deviation required as per site condition, the said deviation has to be considered in the road restoration estimate in consultation with the applicants.

11. After getting the restoration charges from the City Gas Entities, PWD will float necessary tender and will get ready with agency selected for execution of their work. After obtaining a letter from the City Gas Entity conforming that 97% of maximum laboratory dry density as per IS:2720(Part8) of the specified design CBR value of the Subgrade has been achieved which was laid immediate over the steel pipe, concerned Executive Engineer will check the required compaction and if found okay as per technical specification, PWD's agency will commence rest of the work.

12. If there is any delay to start the balance work by the PWD agency, the Gas Entities will protect the trench by proper barricading or temporarily filling up the trench by the excavated materials with compaction to avoid any accident.

Ministry
29.9.2023

Engineer-in-Chief (In-charge)
Public Works Department
Government of West Bengal
Nabanna, Howrah-711102



Secretary
Public Works Department
Government of West Bengal