



**Government of Rajasthan
Office of Project Director**

Rajasthan Urban Infrastructure Development Project

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No. F3 (201)(38)/RUIDP/ PMU/ Ph-III/ICB 02/ 4487

Date: 5--.06.2015

Sub: Addendum No. 2 under Bid Document for the work of Construction of Work of Water Supply Distribution Network Improvement with house service connections for Non Revenue Water reduction and continuous water supply and providing Sewer Network with house connections, construction of Sewage Treatment Plant & allied works and Operation services of the entire system for 10 years at Pali (Contract Package No. RUSDP/Pali/01)

Ref: Invitation No.: BID No RUSDP/ICB/02

Bid document of contract package No RUSDP/Pali/01 is modified as per the enclosed Addendum no. 2. This modification is as per Clause 8 of Section I; Instruction to Bidders. Bid document stands modified as per this addendum and the addendum is part of Bid Document.

Through this addendum, Bill of Quantities is modified and provided at e-proc. Bidders are requested to submit price bid in the modified Bill of Quantity.

Bidders are required to submit duly signed addendum with the technical bid at e proc.

Encl:

1. Addendum No. 2


Project Director

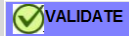
No. F3(201)(38)/RUSDP/Ph III/ICB-02/ 4487 - 93 Dated:- 5-/06/2015

Copy to following for information:-

1. PA to Project Director, RUIDP
2. Additional Project Director, RUIDP, Jaipur
3. Financial Advisor, RUIDP, Jaipur
4. SE(IV), SE(WS), SE(WW)
5. SE, RUIDP, Pali


Superintending Engineer (IV)

Tender Inviting Authority :Project Director, Rajasthan Urban Infrastructure Development Project



Name of Work: Construction of Work of Water Supply Distribution Network Improvement with house service connections for Non Revenue Water continuous water supply and providing Sewer Network with house connections, construction of Sewage Treatment Plant & allied works and Operation services of the entire system for 10 years at Pali



Contract Package No: RUSDP/Pali/01



Bidder Name:

PRICE SCHEDULE

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
1.00	Part A: Survey Work					
2.00	Topographical survey using Total Station equipment and the spot levels and drawing contours at 0.5 m interval on GIS based digitized map.	155.00	Sqkm			
3.00	Survey of all properties, preparation of GIS based consumer mapping and database, plotting assets on GIS map etc (Satellite image will be provided by the RUIDP)	44000.00	No. of property			
4.00	Surveys for all underground utilities including pipes, cables etc on roads and streets upto 1.5 m depth and marking on GIS based maps by linking with geo referenced points	700.00	kms			
5.00	Preparation of SIP suitable for approval by the Employer and its updation	1.00	Lot			
6.00	To Analyze the soil conditions by drilling bore holes at different locations to represent soil strata to conduct Standard penetration test (SPT) for determining SBC in hole as per IS-2131 including collection of disturbed and undisturbed soil samples at every 3.0 m or at change of strata analyzing the soil or grain size, atterberg limits, bulk & dry densities, shear parameters and specific gravity. In case of rock, collection of core, calculation or RQD (Rock Quality Designation) and core recovery and comprehensive strength of rock. Geo-tech investigation to be done at different locations complete in all respect as per specifications.					
7.00	In Hard Soil	400.00	metre			
8.00	In Ordinary/ Soft Rock	100.00	metre			
9.00	In Hard Rock	100.00	metre			
10.00	Bathymetric survey of raw water storage Lakhotia talab will be carried out to prepare maps showing its present capacity, boundary and depth contours, prior to take up its restoration works as per site conditions and directions of Engineer-in-Charge	48750.00	Sqm			
11.00	Water Infrastructure Integrated Management System (WIIMS) with Web based GIS application					

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
12.00	Supply, design, development, delivery, installation, testing, training, trial of Water Infrastructure Intergated Managment System on web based GIS application - It is inclusive of GIS application software and GIS solutions and all other softwares accessories, cables, programs, licences to run the software on web based GIS mode and interlinking the GIS property data, GIS consumer data and GIS network of pipelines and all water supply installations. Application will cater to the viewing, analysing, & utilizing the Geographic Information needs of the water infrastructure departments This should also play a role of decision support system for ULB for which the field information and geographic data plays a vital role. Application module shall perform Billing, revenue collection, statement delivery, debt management, customer services, enquiries, new accounts, pricing & consumer analysis, meter reading & control, meter & connection maintenance and reporting. It should fully integrated with GIS platform to enable optimized walk route management and property/connection reconciliation and should be able to interface with existing system. The system can be expanded to include work order and maintenance management, and should interface with demand management and network analysis applications enabling functions such as consumption analysis, demand-forecasting, design standards evaluation and non-revenue water (UFW) analysis and operational audits The systems should support seamless integration with corporate GIS systems to allow an unrestricted access to spatial data for all management and operational functions or to integrate the spatial data with comprehensive e-Governance solution to be implemented by ULB. The systems should enhance corporate GIS, effectively dealing with the capturing, structuring, maintenance and management of network data. The systems shall address the entire spectrum of network data management that include but are not limited to the following functions: network data acquisition, network data analysis, network data management, mapping, network data modeling, and should support asset management functions such as asset valuations and risk/life cycle assessments. Proposed/Developed GIS Application software should follow National Spatial Data Infrastructure (NSDI) Meta standards and should be compatible with National Urban Information System (NUIS) Scheme					
13.00	ArcFM with AcEditor-	2.00	Lump sum			
14.00	ArcFM Server (upto 4 core)	1.00	Lump sum			
15.00	ArcGIS Server Advance Enterprise (upto 4 core)	1.00	Lump sum			
16.00	Development & Installation of Web customized GIS application software	1.00	Lump Sum			
17.00	Development & Installation of Web customized water billing software solution	1.00	Lump sum			
18.00	Supply, delivery, installation, training of Oracle / SQL Server softwares	1.00	Lump Sum			
19.00	Part B: Sewer line, manhole, inspection chamber etc.					
20.00	Dismantling of flexible pavements for sewer line and manholes and disposal of dismantled materials up to a lead of 50 metres, stacking serviceable and unserviceable materials separately as directed by Engineer including allowances for any additional dismantling beyond the drawings (measurement for payment to be as per standard drawings), rehandling of material/ earth to complete the task.					
21.00	Granular courses	62237.00	Cum			
22.00	Bituminous courses	3393.00	Cum			
23.00	Dismantling of cement concrete pavement for sewer line and manholes by mechanical means using mechanical cutter, pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately as per MoRT&H specification clause 202 including allowances for any additional dismantling beyond the drawings (measurement for payment to be as per standard drawings), rehandling of material/ earth to complete the task.	27244.00	Cum			

SI. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
24.00	Dismantling of interlocking paving blocks of 80-100mm thick in road etc. including stacking serviceable material and disposal of unserviceable material within 50 metres lead :	900.00	cum			
25.00	Earth work for Sewer line and Manhole in excavation in foundation,trenches manholes, road side chambers etc. including dressing of sides and ramming of bottoms, including getting out the excavated material, refilling after laying pipe/ foundation and disposal of surplus excavated material at a lead upto 50m suitable site as per direction of Engineer for following depths, below natural ground / Road top level including allowances for any additional dismantling beyond the drawings (measurement for payment to be as per standard drawings), rehandling of material/ earth to complete the task.					
26.00	In all types soils/ saturated soil such as moorum, sand, sandy silt,clay, black cotton soil, kankar, etc.					
27.00	For 0 to 1.5 m depth	270484.00	Cum			
28.00	For 1.5 to 3.0 m depth	57399.00	Cum			
29.00	For 3.0 to 4.5 m depth	15050.00	Cum			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
30.00	For 4.5 to 6.0 m depth	4886.00	Cum			
31.00	For 6.0 to 7.5 m depth	850.00	Cum			
32.00	For 7.5 to 9.0 m depth	19.00	Cum			
33.00	In ordinary rock.					
34.00	For 0 to 1.5 m depth	33811.00	Cum			
35.00	For 1.5 to 3.0 m depth	7175.00	Cum			
36.00	For 3.0 to 4.5 m depth	1882.00	Cum			
37.00	For 4.5 to 6.0 m depth	1047.00	Cum			
38.00	For 6.0 to 7.5 m depth	182.00	Cum			
39.00	For 7.5 to 9.0 m depth	14.00	Cum			
40.00	In hard rock (Blasting prohibited)					
41.00	For 0 to 1.5 m depth	33811.00	Cum			
42.00	For 1.5 to 3.0 m depth	7175.00	Cum			
43.00	For 3.0 to 4.5 m depth	1882.00	Cum			
44.00	For 4.5 to 6.0 m depth	1047.00	Cum			
45.00	For 6.0 to 7.5 m depth	182.00	Cum			
46.00	For 7.5 to 9.0 m depth	50.00	Cum			
47.00	Add extra over above item no. 25 to 46 for excavation in saturated soil, silt, rock and sludge where pumping or bailing out of water including well point if required for sewer line and manhole					
48.00	Excavation from encountered depth of water table 0 to 1.5 m	3382.00	Cum			
49.00	Excavation from encountered depth of water table 1.5 to 3.0 m	718.00	Cum			
50.00	Excavation from encountered depth of water table 3.0 to 4.5 m	189.00	Cum			
51.00	Excavation from encountered depth of water table 4.5 to 6.0 m	70.00	Cum			
52.00	Excavation from encountered depth of water table 6.0 to 7.5 m	13.00	Cum			
53.00	Providing and fixing OPEN timbering in trenches of sewer line and manholes including strutting, shoring and packing cavities (wherever required) complete for following depth below NGL					
54.00	Depth upto 3.0 m	294138.00	Sqm			
55.00	Depth more than 3.0 m and upto 6.0 m	126539.00	Sqm			
56.00	Depth beyond 6.0 m	21294.00	Sqm			
57.00	Extra for planking, strutting and packing material for cavities IN OPEN TIMBERING of sewer line and manholes if required to be left permanently in position (face area of timber permanently left to be measured)	8840.00	Sqm			
58.00	Providing and fixing CLOSE timbering in trenches of sewer line and manholes including strutting, shoring and packing cavities (wherever required) complete. (Measurements to be taken of the face area timbered) for following depth below NGL.					
59.00	Depth upto 3.0 m	126059.00	Sqm			
60.00	Depth more than 3.0 m and upto 6.0 m	54231.00	Sqm			
61.00	Depth beyond 6.0 m	9126.00	Sqm			
62.00	Extra for planking, strutting and packing material for cavities IN CLOSE TIMBERING of sewer line and manholes if required to be left permanently in position (face area of timber permanently left to be measured)	3789.00	Sqm			
63.00	Providing and fixing close timbering made of Steel Girder Piling in sewer line and manholes work for support the both side of trenches with ISMB 250 as vertical member at 1.25 m centre to centre, ISMB 250 as horizontal member for tie at two depths, Struts to support the both side of trench of ISMB 250 and face of trench to be covered with 100*100*1235 mm wooden planks and removing Steel Girder piling after laying the sewers etc. complete as per specifications and as directed by Engineer. (Measurements to be taken of the face area timbered)					

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
64.00	Depth more than 3.0 m and upto 6.0 m	9039.00	Sqm			
65.00	Depth beyond 6.0 m	21294.00	Sqm			
66.00	Carriage of Materials By mechanical transport including loading, unloading and stacking with all lead & lift.					
67.00	Earth					
68.00	Lead up to 2 Km	12446.00	Cum			
69.00	Lead above 2 Km and up to 5 Km	1245.00	Cum			
70.00	Lead above 5 km	1245.00	Cum			
71.00	Stone, boulders, gravelly material					
72.00	Lead up to 2 Km	3111.00	Cum			
73.00	Lead above 2 Km and up to 5 Km	311.00	Cum			
74.00	Lead above 5 km	311.00	Cum			
75.00	Providing and fixing Barricading at site of work for restricting the general public using 40 mm dia M.S. pipe ("B" class) as vertical post with average spacing of 1.80 meter between two vertical posts, having height at least 1.5 m above road/ ground level and at least 30-45 cm below road/ ground level by making suitable size hole in road/ ground, providing and fixing suitably two rows of 100mm wide PVC Tape preferably of red colour. The M.S. pipe shall be painted in red and white colour strips as per approved pattern as and when it becomes shabby but at least after every alternate shifting at new location. After shifting/ removal of barricading the hole shall be filled up properly and site is to be cleared in all respect. (Note: measurement is to be done in linear basis)	114386.00	metre			
76.00	Providing and Fixing Minimum 0.63mm thick GI corrugated sheets (minimum width of each sheet shall be 60 cm) for covering the barricading in one/ two rows one above another and painting in red and white stripes as per the specifications and directions of the Engineer Incharge with proper fixing arrangements with GI limpet washers nuts and bolts complete in all respect.	238638.00	Sqm			
77.00	Providing and fixing Barricading at site of work for restricting the general public using 40 mm dia M.S. pipe ("B" class) as vertical post with average spacing of 1.80 meter between two vertical posts, having height at least 1.5 m above road/ ground level and at least 30-45 cm below road/ ground level by making suitable size hole in road/ ground, providing and fixing two rows of 40 mm dia M.S. pipe ("B" class) as horizontal members with nuts & bolts. Both vertical and horizontal members shall be painted in red and white colour strips as per approved pattern as when it becomes shabby but at least after every alternate shifting at new location. After shifting/ removal of barricading holes shall be filled up properly and site is to be cleared in all respect. (Note: measurement is to be done in linear basis)	457543.00	metre			
78.00	Providing, lowering, laying, aligning, fixing in position and jointing at all level/ depths full round HDPE DWC (double wall corrugated) pipes of SN8 grade as per IS 16098 (Part 2) amended upto date in trenches in complete including all material, labour, testing and commissioning as per Technical Specifications, drawings and as per direction of Engineer. Note: E/w to be measured and paid seperately					
79.00	200 mm ID	268354.00	metre			
80.00	250 mm ID	3289.00	metre			
81.00	300 mm ID	1108.00	metre			
82.00	400 mm ID	1963.00	metre			
83.00	500 mm ID	1846.00	metre			
84.00	600 mm ID	1083.00	metre			
85.00	800 mm ID	1421.00	metre			
86.00	1000 mm ID	500.00	metre			

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1	2	3	4	5	6	7
87.00	Providing granular bedding having width = outer dia of pipe (Bc) +500mm, thickness below pipe = 0.25Bc or 100mm (whichever is higher) and haunching = 0.5Bc, with graded hard crusher broken stone of 100% passing through 10mm sheive, min 50 % passing through 6.3 mm sheive, laying in layers of thickness 10/15cm including ramming, consolidation etc complete for all type of pipes of following sizes as per drawing and or as directed by Engineer.					
88.00	200 mm Diameter	268354.00	metre			
89.00	250 mm Diameter	3289.00	metre			
90.00	300 mm Diameter	1108.00	metre			
91.00	400 mm Diameter	1963.00	metre			
92.00	500 mm Diameter	1846.00	metre			
93.00	600 mm Diameter	1083.00	metre			
94.00	800 mm Diameter	1421.00	metre			
95.00	1000 mm Diameter	500.00	metre			
96.00	Pipe encasing at river/canal crossing location /minimum cover locations(0.6m)					
97.00	Providing and laying in position cement concrete of specified grade over prepared base course complete including finishing, curing, all material, labour, machinery, lighting, guarding for road restoration under sewer line and manhole work 1:1:2 (1 Cement : 1 coarse sand : 2 graded stone aggregate 20 mm nominal size) (As per design mix)	530.00	Cum			
98.00	Centring and shuttering upto two stories or height upto 7.5 metre above plinth level including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete.	1424.00	Sqm			
99.00	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level : 1:1½:3 (1 Cement : 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size).	1050.00	Cum			
100.00	Providing, lowering, laying in trenches, aligning, fixing in position and jointing Ductile Iron (DI) ISI marked K-7 grade S&S pipes as per IS:8329-2000 (amended upto date), with internal cement mortar lining for potable/ waste water/ treated effluent with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 (excluding special accessories) complete including all material, labour, hydraulic testing and commissioning as per Technical Specifications and as per direction of Engineer.					
101.00	200 mm dia	110.00	metre			
102.00	250 mm dia	110.00	metre			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
103.00	300 mm dia	340.00	metre			
104.00	350 mm dia	290.00	metre			
105.00	400 mm dia	686.00	metre			
106.00	500 mm dia	457.00	metre			
107.00	600 mm dia	110.00	metre			
108.00	700 mm dia	110.00	metre			
109.00	<p>Providing, fixing and constructing of pre-cast RCC M-40 grade circular manholes (using sulphate resistant cement) with internal dia 1.0m and up to specified depth having pre-cast RCC M-40 grade conical piece 0.69m top dia, 1.0m bottom dia, 0.72m total height (0.431m cone height), 125mm wall thickness with inbuilt manhole cover frame on top and circular ring on bottom, required no of pre-cast RCC M-40 grade circular ring of dia 1.0m, height 300/ 225/ 150mm and wall thickness 125mm including concreting PCC M-10 grade (1:4:8) for 150mm thick, 1.2m dia foundation, PCC M20 for 1.1m dia benching and channel portion and up to top level of sewer pipe etc complete with curing compaction and form work, Supplying and fixing of 560 mm dia Ductile Iron manhole cover & frame (circular / rectangular), Hinged Type, Heavy Duty with test load of 400 KN, class D-400 as per BS EN 124, including shuttering, reinforcement steel, testing for water tightness and fixing ferro-cement foot steps complete in all respect (including the cost of manhole cover and frame) as per specification and the direction of the Engineer</p> <p>(Note:- Excavation of earth work and road cutting for manhole will be measured and paid separately)</p>					
110.00	Pre-cast RCC M-40 grade circular manholes 0.72 m deep to invert with pre-cast conical piece, 1 no pre-cast circular ring, Cast-in-situ PCC M-10 grade foundation, PCC M15 grade benching and channel portion	8253.00	Each			
111.00	Providing and fixing pre-cast RCC M-40 grade circular ring (using sulphate resistant cement) of dia 1.0m, height 300/225/150mm for constructing extra depth of manhole for depth beyond 0.72m as per drawing and direction of Engineer.	2507.00	metre			
112.00	<p>Providing, fixing and constructing of pre-cast RCC M-40 grade circular manholes (using sulphate resistant cement) with internal dia 1.20m and up to specified depth having pre-cast RCC M-40 grade conical piece 0.69m top dia, 1.2m bottom dia, 0.92m total height (0.631m cone height), 125mm wall thickness with inbuilt manhole cover frame on top and circular ring on bottom, required no of pre-cast RCC M-40 grade circular ring of dia 1.2m, height 300/ 225/ 150mm and wall thickness 125mm including concreting PCC M-10 grade (1:4:8) for 150mm thick, 1.4m dia foundation, PCC M20 for 1.3m dia benching and channel portion and up to top level of sewer pipe etc complete with curing compaction and form work, Supplying and fixing of 560 mm dia Ductile Iron manhole cover & frame (circular / rectangular), Hinged Type, Heavy Duty with test load of 400 KN, class D-400 as per BS EN 124, including shuttering, reinforcement steel, testing for water tightness and fixing ferro-cement foot steps complete in all respect (including the cost of manhole cover and frame) as per specification and the direction of the Engineer.(Note:- Excavation of earth work and road cutting for manhole will be measured and paid separately)</p>					

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
113.00	Pre-cast RCC M-40 grade circular manholes 0.92 mtr deep to invert with pre-cast conical piece, 1 no pre-cast circular ring, Cast-in-situ PCC M-10 grade foundation, PCC M15 grade benching and channel portion	1232.00	Each			
114.00	Providing and fixing pre-cast RCC M-40 grade circular ring (using sulphate resistant cement) of dia 1.2m, height 300/225/150mm for constructing extra depth of manhole for depth beyond 0.92m as per drawing and direction of Engineer.	622.00	metre			
115.00	Providing, fixing and constructing of pre-cast RCC M-40 grade circular manholes (using sulphate resistant cement) with internal dia 1.50m and up to specified depth having pre-cast RCC M-40 grade conical piece 0.69m top dia, 1.5m bottom dia, 1.22m total height (0.931m cone height), 125mm wall thickness with inbuilt manhole cover frame on top and circular ring on bottom, required no of pre-cast RCC M-40 grade circular ring of dia 1.5m, height 300/ 225/ 150mm and wall thickness 125mm including concreting PCC M-10 grade (1:4:8) for 150mm thick, 1.7m dia foundation, PCC M20 for 1.6m dia benching and channel portion and up to top level of sewer pipe etc complete with curing compaction and form work, Supplying and fixing of 560 mm dia Ductile Iron manhole cover & frame (circular / rectangular), Hinged Type, Heavy Duty with test load of 400 KN, class D-400 as per BS EN 124, including shuttering, reinforcement steel, testing for water tightness and fixing ferro-cement foot steps complete in all respect (including the cost of manhole cover and frame) as per specification and the direction of the Engineer.(Note:- excavation of earth work and road cutting for manhole will be measured and paid separately)					
116.00	Pre-cast RCC M-40 grade circular manholes 1.22 mtr deep to invert with pre-cast conical piece, 1 no pre-cast circular ring, Cast-in-situ PCC M-10 grade foundation, PCC M15 grade benching and channel portion	2163.00	Each			
117.00	Providing and fixing pre-cast RCC M-40 grade circular ring (using sulphate resistant cement) of dia 1.5m, height 300/225/150mm for constructing extra depth of manhole for depth beyond 1.22m as per drawing and direction of Engineer.	5337.00	metre			
118.00	Providing and constructing of SEWER-BRICK masonry circular manholes (using sulphate resistant cement) of "Type-A" with internal dia 0.90m and depth upto 1.65m having 230mm thick sewer brick masonry wall in cement sand mortar 1:4, including concreting PCC M-10 grade (1:4:8) for 225mm thick foundation including curing compaction and form work etc complete, PCC M15 for benching and channel portion, RCC M20 for 200mm thick cover slab including reinforcement, PCC M20 for fixing the manhole frame and cover using stone aggregate 20mm nominal size, 20mm thick inside and outside plaster in C. M. 1:3, inside plaster finished with floating coat of neat cement, vata in CM1:1 around pipe entering and leaving the manhole and also at the junction of masonry and concrete slab, providing and fixing of SFRC foot steps of approved make at every 0.30m height fixed in CM 1:3, Supplying and fixing of 560 mm dia Ductile Iron manhole cover & frame (circular / rectangular), Hinged Type, Heavy Duty with test load of 400 KN, class D-400 as per BS EN 124, including refilling of Jhiri, including curing, watering, ramming, hydro testing of manhole, conveyance & cost of water, and dewatering complete as directed by the Engineer. Note-Only Excavation work will be measured and paid separately.					
119.00	Manhole "Type-A" of depth 0.90 m	203.00	Each			
120.00	Providing and constructing extra depth of manhole (using sulphate resistant cement) "Type-A" for depth beyond 0.90 m and upto 1.65 m with SEWER-BRICK masonry including 20mm plaster inside and outside as per drawing and direction of Engineer.	21.00	metre			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
121.00	Providing and constructing of SEWER-BRICK masonry circular manholes (using sulphate resistant cement) of "Type-B" with internal dia 1.20m and depth upto 2.50m having sewer brick masonry wall 230mm thick upto 1.5m, 345mm thick from 1.50m to 2.50m in cement sand mortar 1:4, including concreting PCC M-10 grade (1:4:8) for 225mm thick foundation including curing compaction and form work etc complete, PCC M15 for benching and channel portion, RCC M20 for 200mm thick cover slab including reinforcement, PCC M20 for fixing the manhole frame and cover using stone aggregate 20mm nominal size, 20mm thick inside and outside plaster in C. M. 1:3, inside plaster finished with floating coat of neat cement, vata in CM1:1 around pipe entering and leaving the manhole and also at the junction of masonry and concrete slab, providing and fixing of SFRC foot steps of approved make at every 0.30m height fixed in CM 1:3, Supplying and fixing of 560 mm dia Ductile Iron manhole cover & frame (circular / rectangular), Hinged Type, Heavy Duty with test load of 400 KN, class D-400 as per BS EN 124, including refilling of Jhiri, including curing, watering, ramming, hydro testing of manhole, conveyance & cost of water, and dewatering complete as directed by the Engineer. Note-Only Excavation work will be measured and paid separately.					
122.00	Manhole "Type-B" of depth 1.70 m	28.00	Each			
123.00	Providing and constructing extra depth of manhole (using sulphate resistant cement) "Type-B" for depth beyond 1.70 m and upto 2.50 m with SEWER-BRICK masonry including 20mm plaster inside and outside as per drawing and direction of Engineer	8.00	metre			
124.00	Providing and constructing of SEWER-BRICK masonry circular manholes (using sulphate resistant cement) of "Type-C" with internal dia 1.50m and depth upto 5.0m having sewer brick masonry wall 230mm thick upto 1.5m, 345mm thick from 1.50m to 2.50m and 460mm from 2.50 to 5.0m in cement sand mortar 1:4, including concreting PCC M-10 grade (1:4:8) for 225mm thick foundation including curing compaction and form work etc complete, PCC M15 for benching and channel portion, RCC M20 for 200mm thick cover slab including reinforcement, PCC M20 for fixing the manhole frame and cover using stone aggregate 20mm nominal size, 20mm thick inside and outside plaster in C. M. 1:3, inside plaster finished with floating coat of neat cement, vata in CM1:1 around pipe entering and leaving the manhole and also at the junction of masonry and concrete slab, providing and fixing of SFRC footsteps of approved make at every 0.30m height fixed in CM 1:3, Supplying and fixing of 560 mm dia Ductile Iron manhole cover & frame (circular / rectangular), Hinged Type, Heavy Duty with test load of 400 KN, class D-400 as per BS EN 124, including refilling of Jhiri, including curing, watering, ramming, hydro testing of manhole, conveyance & cost of water, and dewatering complete as directed by the Engineer. Note-Only Excavation work will be measured and paid separately.					
125.00	Manhole "Type-C" of depth 2.60 m	10.00	Each			
126.00	Providing and constructing extra depth of manhole (using sulphate resistant cement) "Type-C" for depth beyond 2.60 m and upto 5.0 m with SEWER-BRICK masonry including 20mm plaster inside and outside as per drawing and direction of Engineer.	23.00	metre			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
127.00	<p>Providing, fixing and constructing of pre-cast RCC M-40 grade circular manholes (using sulphate resistant cement) with internal dia 0.9m and up to specified depth having pre-cast RCC M-40 grade cylindrical piece 0.80m total height, 125mm wall thickness with inbuilt manhole cover frame on top and circular ring on bottom, required no of pre-cast RCC M-40 grade circular ring of dia 0.9m, height 300/ 225/ 150mm and wall thickness 125mm including concreting PCC M-15 grade (1:4:8) for 150mm thick, 1.35m dia foundation, PCC M-20 for benching and channel portion and up to top level of sewer pipe etc complete with curing compaction and form work, Supplying and fixing of 560 mm dia Ductile Iron manhole cover & frame (circular / rectangular), Hinged Type, Heavy Duty with test load of 400 KN, class D-400 as per BS EN 124, including shuttering, reinforcement steel, testing for water tightness and fixing ferro-cement foot steps complete in all respect (including the cost of manhole cover and frame) as per specification and the direction of the Engineer (Note:- Excavation of earth work and road cutting for manhole will be measured and paid separately)</p>					
128.00	Pre-cast RCC M-40 grade circular manholes 0.8 m deep to invert with pre-cast conical piece, 1 no pre-cast circular ring, Cast-in-situ PCC M-15 grade foundation, RCC M-40 grade benching and channel portion	1175.00	Each			
129.00	Providing and fixing pre-cast RCC M-40 grade circular ring of dia 0.9m, height 300/225/150mm for constructing extra depth of manhole for depth beyond 0.8m as per drawing and direction of Engineer.	275.00	metre			
130.00	<p>Providing, fixing of Plastic circular manhole made from HDPE double wall (inner wall plain and outer corrugated) as per EN 13598-2-2009 (amended upto date) with internal dia 1.00m and up to specified depth having 1 No conical piece of suitable height, column (riser) shaft and base suitable for connecting incoming / outgoing sewer pipe of specified diameter, including concreting PCC M-10 grade (1:4:8) 150mm thick, 1.1m dia foundation, etc complete with curing compaction and form work. The manholes shall be provided with stainless steel foot steps or ladder suitable for corrosive environment as per EN 13101:2002 or minimum SS 316 grade, supplying and fixing of 560 mm dia Ductile Iron manhole cover & frame (circular / rectangular), Hinged Type, Heavy Duty with test load of 400 KN, class D-400 as per BS EN 124, including grouting the frame in PCC M-15; complete in all respect including testing for water tightness and complete in all respect as per specification and the direction of the Engineer. (Note:- Excavation of earth work and road cutting for manhole will be measured and paid separately)</p>					
131.00	HDPE circular manholes 1.45 mtr deep to invert	190.00	Each			
132.00	Providing and fixing HDPE circular (column) riser shaft of dia 1.0m ID of required height for constructing extra depth of manhole for depth beyond 1.45 m & upto 3.0 m deep to invert as per drawing and direction of Engineer.	110.00	metre			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
133.00	Providing, fixing of Plastic circular manhole made from HDPE double wall (inner wall plain and outer corrugated) as per EN 13598-2-2009 (amended upto date) with internal dia 1.20m and up to specified depth having 1 No conical piece of suitable height, riser (column) shaft and base suitable for connecting incoming / outgoing sewer pipe of specified diameter, including concreting PCC M-10 grade (1:4:8) 150mm thick, 1.3 m dia foundation, etc complete with curing compaction and form work. The manholes shall be provided with stainless steel foot steps or ladder suitable for corrosive environment as per EN 13101:2002 or minimum SS 316 grade, supplying and fixing of 560 mm dia Ductile Iron manhole cover & frame (circular / rectangular), Hinged Type, Heavy Duty with test load of 400 KN, class D-400 as per BS EN 124, including grouting the frame in PCC M-15; complete in all respect including testing for water tightness and complete in all respect as per specification and the direction of the Engineer. (Note:- Excavation of earth work and road cutting for manhole will be measured and paid separately)					
134.00	HDPE circular manholes 1.57 mtr deep to invert	80.00	Each			
135.00	Providing and fixing HDPE circular riser (column) shaft of dia 1.2m ID of required height for constructing extra depth of manhole for depth beyond 1.57m & upto 3.0 m deep to invert as per drawing and direction of Engineer.	140.00	metre			
136.00	Providing PVC-U pipes as per IS 15328 drop connection externally for depth from 0.60 m and upto 1.0 m drop from branch sewer line to main sewer manhole or vise versa including inspection and cleaning eye, PVC-U drop pipe and bend encased around with cement concrete M15 with all form work, cutting holes in walls and making good with brick/ stone masonry work in cement sand mortar 1:4 plastered with cement sand mortar 1:3 with stiff cement mortar 1:1 around PVC-U pipe in masonry wall, making required channels complete as per standard design and specifications and/ or as the directed of the Engineer:					
137.00	110mm dia	860.00	Each			
138.00	160mm dia	4.00	Each			
139.00	200mm dia	2.00	Each			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
140.00	Extra for additional drop depth of PVC-U pipes as per IS 15328 drop connection beyond 1.0 m complete as per standard specification and the direction of the Engineer. (To be paid for actual depth beyond 1.0 m)					
141.00	110mm dia	755.00	metre			
142.00	160mm dia	2.00	metre			
143.00	200mm dia	1.00	metre			
144.00	<p>Providing, fixing and constructing of pre-cast RCC M-40 grade circular Road Side Inspection Chamber (using sulphate resistant cement) with internal dia 0.30m and up to 0.45m depth having pre-cast RCC M-40 grade cylindrical piece 0.45m total height, 100mm wall thickness with inbuilt manhole cover frame on top including concreting PCC M-15 grade for 100mm thick, 0.55m dia foundation, PCC M-20 for benching and channel portion and up to top level of sewer pipe etc complete with curing compaction and form work, supplying and fixing with circular 450mm dia precast SFRC MD manhole frame and cover complete in all respect including shuttering, reinforcement steel testing for water tightness including opening for 2 Nos. 110 OD and plugging the same etc complete in all respect (including the cost of manhole cover and frame) as per specification and the direction of the Engineer</p> <p>(Note:- Excavation of earth work and road cutting for chamber will be measured and paid separately)</p>	384.00	Nos			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
145.00	Providing, fixing and constructing of pre-cast RCC M-40 grade circular Road Side Inspection Chamber (using sulphate resistant cement) with internal dia 0.45m and up to 0.60m depth having pre-cast RCC M-40 grade cylindrical piece 0.60m total height, 100mm wall thickness with inbuilt manhole cover frame on top including concreting PCC M-15 grade for 100mm thick, 0.70m dia foundation, PCC M-20 for benching and channel portion and up to top level of sewer pipe etc complete with curing compaction and form work, supplying and fixing with circular 450mm dia precast SFRC MD manhole frame and cover complete in all respect including shuttering, reinforcement steel testing for water tightness including opening for 2 Nos. 110 OD and plugging the same etc complete in all respect (including the cost of manhole cover and frame) as per specification and the direction of the Engineer (Note:- Excavation of earth work and road cutting for chamber will be measured and paid separately)	36780.00	Nos			
146.00	Providing, fixing and constructing of pre-cast RCC M-40 grade circular Road Side Inspection Chamber (using sulphate resistant cement) with internal dia 0.45m and depth beyond 0.6 m & up to 0.90m depth having pre-cast RCC M-40 grade cylindrical piece 0.90m total height, 100mm wall thickness with inbuilt manhole cover frame on top including concreting PCC M-15 grade for 100mm thick, 0.70m dia foundation, PCC M-20 for benching and channel portion and up to top level of sewer pipe etc complete with curing compaction and form work, supplying and fixing with circular 450mm dia precast SFRC MD manhole frame and cover complete in all respect including shuttering, reinforcement steel testing for water tightness including opening for 2 Nos. 110 OD and plugging the same etc complete in all respect (including the cost of manhole cover and frame) as per specification and the direction of the Engineer (Note:- Excavation of earth work and road cutting for chamber will be measured and paid separately)	444.00	Nos			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
147.00	Construction of road side inspection chamber (using sulphate resistant cement) of "Type-A" internal dia 450mm and depth of 900mm with 200 mm thick PCC M10 in foundation, 75mm thick PCC M15 flooring in slop,230mm thick brick masonry in CM (1:4),20mm thick inside and outside plastering with CM (1:3), inside plaster finished with neat coat of cement, with circular 450mm dia precast SFRC MD manhole frame and cover embedded in 200mm thick PCC M20 grade concrete, refilling of Jhiri with watering and ramming including fixing 2 Nos. 110 OD uPVC pipe pieces (stiffness class SN 8) as per IS 15328 and plugging the same etc complete as per approved drawing and/or directed by Engineer. Note: Only excavation work will be measured and paid seperately	2419.00	Each			
148.00	Construction of road side inspection chamber (using sulphate resistant cement) of "Type-A1" internal dia 450mm and depth of 700mm with 200 mm thick PCC M10 in foundation, 75mm thick PCC M15 flooring in slope,230mm thick brick masonry in CM (1:4),20mm thick inside and outside plastering with CM (1:3), inside plaster finished with neat coat of cement, with circular 450mm dia precast RCC manhole cover & frame HD-20 embedded in 200mm thick PCC M20 grade concrete, refilling of Jhiri with watering and ramming including fixing 2 Nos. 110 OD uPVC pipe pieces (stiffness class SN 8) as per IS 15328 and plugging the same etc complete as per approved drawing and/or directed by Engineer. Note: Only excavation work will be measured and paid seperately	4900.00	Each			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
149.00	Construction of road side inspection chamber (using sulphate resistant cement) of "Type-A" internal dia 450mm and depth of 500mm with 200 mm thick PCC M10 in foundation, 75mm thick PCC M15 flooring in slop, 230mm thick brick masonry in CM (1:4), 20mm thick inside and outside plastering with CM (1:3), inside plaster finished with neat coat of cement, with circular 450mm dia precast SFRC MD manhole frame and cover embedded in 200mm thick PCC M20 grade concrete, refilling of Jhiri with watering and ramming including fixing 2 Nos. 110 OD uPVC pipe pieces (stiffness class SN 8) as per IS 15328 and plugging the same etc complete as per approved drawing and/or directed by Engineer. Note: Only excavation work will be measured and paid separately	7360.00	Each			
150.00	Providing at site, lowering & laying in trenches, aligning & jointing of PVC-U pipes (SN 8) as per IS 15328 (amended up to date) and as per specifications with rubber rings with socket and spigot joint, (EPDM/SBR) for all depths for pipe length as per drawing and specification including hydraulic field testing and commissioning etc complete as directed by Engineer. Note : E/w to be measured and paid separately 110 mm Nominal Dia	208554.00	metre			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
151.00	Providing at site, lowering & laying in trenches, aligning & jointing of PVC-U pipes (SN 8) as per IS 15328 (amended up to date) and as per specifications with rubber rings with socket and spigot joint , (EPDM/SBR) for all depths for pipe length as per drawing and specification including hydraulic field testing and commissioning etc complete as directed by Engineer. Note : E/w to be measured and paid separately 160 mm Nominal Dia	52139.00	metre			
152.00	Providing, fixing and erecting precast RCC (M20) Vent shaft with cowl, 125mm and 225mm internal and external dia respectively at top, 300mm and 450mm internal and external dia at bottom and 9.0m over all length, bottom 1.175m below ground level fixed in the pit 900mmx900mmx1500mm with PCC M15, 250mm in bed and minimum 200mm all around with top 150mm in PCC M15 with 20mm nominal size graded stone aggregate , junction of vent shaft and concrete grouted with cement mortar 1: including making connection with sewer manhole with 150mm dia NP4 RCC pipe (IS 458-amended upto date) as required including Type-A bedding complete as per standard design and finished with water proofing cement of approved brand as per drawings and/or as directed by Engineer. Only Excavation work will be measured and paid separately	49.00	Each			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
153.00	Raising circular manhole with circular cover 560mm dia and frame slab to required level including dismantling existing slab, taking out the existing CI frame & cover of manhole and raising it upto ground/ road level, refixing of frame and cover in M15 (1:2:4) concrete all around the frame, including making good the damage, form work, curing, complete as directed by Engineer. (Brick/ concrete work of raising depth of manhole to be paid separately)	350.00	Each			
154.00	Lowering of circular manhole with circular cover 600mm dia and frame slab to required level including dismantling existing slab and manhole wall, taking out the existing CI frame & cover of manhole and lowering it upto ground/ road level, refixing of frame and cover in M15 (1:2:4) concrete all around the frame, including making good the damage, form work, curing, complete as directed by Engineer. (Dismantling of brick/ concrete work depth of manhole to be paid separately)	350.00	Each			
155.00	Part C: Railway Crossing & Trenchless Work					

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
156.00	Supply and Pushing of MS casing pipe of specified thickness by trenchless method adopting any suitable technology below ground at required depth under running traffic condition as per railway standard including carrying out survey work at the job site for determining underground cable trenches like telephone, cable, water & sanitary lines and resistivity test for finding the soil strata using necessary equipments for completion of works, mobilizing of machineries and specialized crew at the job site complete in all respect, including excavation of driven pit and exit pit (upto 3 metre depth) with proper protection at three sites with shoring sheets and ISMB's. Providing MS cutting edges for front shield and constructing thrust bed at designated level. Necessary de-watering and providing concrete foundation at the base of the driven pit, PVC/Rubber saddle as per the requirement of Railway Authority, crane for handing of pipe and any other machinery, tools, and tackles required, construction of temporary works as per requirement and as per approved by railway authorities, specification and the direction of the Engineer. (Protective coating/lining if done that will be paid extra)					
157.00	In all type of soils 1100 mm dia 16 mm thick casing pipe	40.00	Rmtr			
158.00	In Rock 1100 mm dia 16mm thick casing pipe	10.00	Rmtr			
159.00	Extra for excavation of driven pit/ exit pit / intermediate pit beyond 3 metre depth, required for pushing/ pulling of MS/HDPE/RCC pipe in trenchless technology, with proper protection at three sides with shoring sheets/ wooden planks and ISMB's, maintaining during pushing/ pulling of pipe, back filling, necessary de-watering including all machinery, tools, and tackles required as per specification and the direction of the Engineer					
160.00	In all types of soil	1747.00	Per pit per metre			
161.00	In rocks	302.00	Per pit per metre			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
162.00	<p>Providing, jointing, laying, testing and commissioning of HDPE PE- 100/PN-6 (suitable for pulling method for jointing) pipes for sewer line as per IS-14333:1996 by trenchless method adopting any suitable technology below ground at required depth including carriage etc. complete in all respect, construction of thrust pit and receiving pit of required size upto 3 metre depth and soil investigation, making suitable arrangement for barricading of pits, traffic diversion, lights, traffic permission from relevant authority (though department will assist in getting the permission), refilling of pits in compacted layers of 150 mm including disposal of surplus material with all lift and lead upto 50 metre as per specification and the direction of the Engineer.</p> <p>In all types of soil</p>					
163.00	200 mm dia HDPE Pipe	10849.00	metre			
164.00	250 mm dia HDPE Pipe	1986.00	metre			
165.00	315 mm dia HDPE Pipe	2388.00	metre			
166.00	400 mm dia HDPE Pipe	3676.00	metre			
167.00	500 mm dia HDPE Pipe	5012.00	metre			
168.00	630 mm dia HDPE Pipe	3046.00	metre			
169.00	700mm dia HDPE Pipe	29.00	metre			
170.00	800mm dia HDPE Pipe	1000.00	metre			
171.00	900mm dia HDPE Pipe	200.00	metre			
172.00	1000mm dia HDPE Pipe	10.00	metre			
173.00	In Rock					
174.00	200 mm dia HDPE Pipe	571.00	metre			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
175.00	250 mm dia HDPE Pipe	104.00	metre			
176.00	315 mm dia HDPE Pipe	125.00	metre			
177.00	400 mm dia HDPE Pipe	194.00	metre			
178.00	500 mm dia HDPE Pipe	264.00	metre			
179.00	630 mm dia HDPE Pipe	160.00	metre			
180.00	Fabrication, supply of flanged/ plain ended MS pipe made from MS sheet strips of relevant IS specification of approved thickness by welding, lowering, laying, aligning, fixing in position at all level/ depths in trenches complete (excluding flanged jointing wherever required) including all material, labour, testing and commissioning along with pipe line as per Technical Specifications and as per direction of Engineer.					
181.00	MS pipe above 600mm dia (with minimum 6.3mm thickness sheet)	9766.00	Kg			
182.00	Part D: Sewer Pumping main & Effluent pipe					
183.00	Providing, lowering, laying in trenches, aligning, fixing in position and jointing Ductile Iron (DI) ISI marked K-7 grade S&S pipes as per IS:8329-2000 (amended upto date), with internal cement mortar lining for potable water with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 (excluding special accessories) complete including all material, labour, hydraulic testing and commissioning as per Technical Specifications and as per direction of Engineer.					

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
184.00	250 mm diameter	500.00	metre			
185.00	700 mm diameter	500.00	metre			
186.00	Providing, lowering, laying, aligning, fixing in position at and jointing at all level/ depths S&S standard specials with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 such as tees, bends, tapers, caps etc. within trenches in DI pipe line complete including all material, labour, testing and commissioning along with pipeline as per Technical Specifications and as per direction of Engineer.					
187.00	Specials S&S DI K-9: Upto 300 mm	300.00	Kg			
188.00	Specials S&S DI K-9: Above 300 mm	500.00	Kg			
189.00	Providing, lowering, laying, aligning, fixing in position at all level/ depths flanged standard specials such as tees, bends, tapers, caps etc. within trenches in DI pipe line complete as per Technical Specifications and as per direction of Engineer.					
190.00	Special Flanged DI K-9: Upto 300mm diameter	50.00	Kg			
191.00	Special Flanged DI K-9: Above 300mm diameter	300.00	Kg			
192.00	Fabrication, supply of flanged/ plain ended MS pipe made from MS sheet strips of relevant IS specification of approved thickness by welding, lowering, laying, aligning, fixing in position at all level/ depths in trenches complete (excluding flanged jointing wherever required) including all material, labour, testing and commissioning along with pipe line as per Technical Specifications and as per direction of Engineer					
193.00	MS pipe specials upto 600mm dia (with minimum 5mm thickness sheet)	200.00	Kg			
194.00	Providing bedding/ hunching for pipe with clean sand passing through IS sieve 2.36mm and retained on 180 micron sieve in layers including ramming, consolidation complete in all respect as per specification and the direction of the Engineer with all lead and lift.	125.00	Cum			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
195.00	Part E- Water Supply Works					
196.00	Earthwork in excavation in foundation, trenches etc. including dressing of sides and ramming of bottoms, including getting out the excavated material, refilling after laying pipe/foundation in layers duly compacted to maximum dry density and disposal of surplus excavated material at a lead upto 50m suitable site as per direction of Engineer for following depth, below natural ground/road top level.					
197.00	In all types soils/saturated soil such as moorum, sand, sandy silt, clay, black cotton soil, kankar etc.					
198.00	Depth upto 1.50m	388351.47	cum			
199.00	Above 1.5 m and up to 3.0 mtr	400.00	cum			
200.00	In ordinary rock					
201.00	Depth upto 1.50m	21575.08	cum			
202.00	Above 1.5 m and up to 3.0 mtr	300.00	cum			
203.00	In hard rock (blasting prohibited)					
204.00	Depth upto 1.50m	21575.08	cum			
205.00	Above 1.5 m and up to 3.0 mtr	500.00	cum			
206.00	Add extra over item 1 for excavation in saturated soil, silt and sludge where pumping or bailing out of water is required including shoring, strutting where required and dewatering, where width is upto 6 metre					
207.00	Exavation from encountered depth of water table 0.0 to 1.50 m	4861.97	cum			
208.00	Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 50 metres, stacking serviceable and unserviceable materials separately as directed by Engineer					
209.00	Bituminous courses	28790.00	cum			
210.00	Granular courses	10934.00	cum			
211.00	Dismantling of cement concrete pavement by mechanical means using mechanical cutter, pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately as per MoRT&H specification clause 202.	25000.00	cum			
212.00	Providing sand bedding/ hunching for pipe with clean sand passing through IS sieve 2.36mm and retained on 180 micron sieve in layers including ramming, consolidation complete in all respect as per specification and the direction of the Engineer with all lead and lift. (If rock strata arise). HDPE/DI pipe (110mm to 500mm diameter) for trench portion	19961.39	cum			
213.00	Providing Barricading for Trenches using 80 - 100mm dia. wooden Ballies as vertical post, atleast 1.5m above ground level and atleast 30-45 cm below ground level at a spacing of 3 m. Two rows of PVC Tape (preferably red in colour) strip barricading horizontal strip securely tied by the vertical members. Vertical members shall be painted in red and white colour. Rate is inclusive removal and cleaning of site complete in all respect.	284987.85	metre			
214.00	Providing and fixing Barricading at site of work for restricting the general public using 40 mm dia M.S. pipe ("B" class) as vertical post with average spacing of 1.80 meter between two vertical posts, having height at least 1.5m above road/ ground level and atleast 30-45 cm below road/ ground level by making suitable size hole in road/ ground, providing and fixing suitably two rows of 100mm wide PVC Tape preferably of red colour. The M.S. pipe shall be painted in red and white colour strips as per approved pattern as and when it becomes shabby but at least after every alternate shifting at new location. After shifting/ removal of barricading the hole shall be filled up properly and site is to be cleared in all respect. (Note: measurement is to be done in linear basis)	407125.50	metre			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
215.00	Providing and fixing Barricading at site of work for restricting the general public using 40 mm dia M.S. pipe ("B" class) as vertical post with average spacing of 1.80 meter between two vertical posts, having height at least 1.5 m above road/ ground level and atleast 30-45 cm below road/ ground level by making suitable size hole in road/ ground, providing and fixing two rows of 40 mm dia M.S. pipe ("B" class) as horizontal members with nuts & bolts. Both vertical and horizontal members shall be painted in red and white colour strips as per approved pattern as when it becomes shabby but atleast after every alternate shifting at new location. After shifting/ removal of barricading holes shall be filled up properly and site is to be cleared in all respect. (Note: measurement is to be done in linear basis)	81425.10	metre			
216.00	Providing and Fixing Minimum 0.63mm thick GI corrugated sheets (minimum width of each sheet shall be 60 cm) for covering the barricading in one/ two rows one above another and painting in red and white stripes as per the specifications and directions of the Engineer-in-charge with proper fixing arrangements with GI limpet washers nuts and bolts complete in all respect.	40712.55	metre			
217.00	Providing, lowering, laying, aligning, fixing in position at and jointing at all level/depths ISI marked HDPE pipes, accessories / fittings of PE-100 grade & PN-6 (electro-fusion) for potable water as per IS: 4984 (amended upto date) in trenches in complete including all material, labour, testing and commissioning as per Technical Specifications and as per direction of Engineer.					
218.00	110mm diameter	468720.00	metre			
219.00	140mm diameter	67809.00	metre			
220.00	160mm diameter	28552.00	metre			
221.00	200mm diameter	28144.00	metre			
222.00	250mm diameter	25645.00	metre			
223.00	280mm dia	9807.00	metre			
224.00	315mm diameter	11042.00	metre			
225.00	Providing, lowering, laying in trenches, aligning, fixing in position and jointing Ductile Iron (DI) ISI marked K-9 grade S&S pipes as per IS:8329-2000 (amended upto date), with internal cement mortar lining for potable water with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 (excluding special accessories) complete including all material, labour, hydraulic testing and commissioning as per Technical Specifications and as per direction of Engineer					
226.00	200mm dia	2250.00	metre			
227.00	250mm dia	12100.00	metre			
228.00	300mm dia	7600.00	metre			
229.00	Providing, lowering, laying in trenches, aligning, fixing in position and jointing Ductile Iron (DI) ISI marked K-7 grade S&S pipes as per IS:8329-2000 (amended upto date), with internal cement mortar lining for potable water with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 (excluding special accessories) complete including all material, labour, hydraulic testing and commissioning as per Technical Specifications and as per direction of Engineer					
230.00	350mm dia	8570.00	metre			
231.00	400mm dia	8932.00	metre			
232.00	450mm dia	1310.00	metre			
233.00	500mm dia	5770.00	metre			
234.00	Providing, lowering, laying, aligning, fixing in position at and jointing at all level/ depths S&S standard specials with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 such as tees, bends, tapers, caps etc. within trenches in DI pipe line complete including all material, labour, testing and commissioning along with pipeline as per Technical Specifications and as per direction of Engineer.					
235.00	DI K-9 Upto 300mm diameter	7000.00	Kg			
236.00	DI K-9 above 300mm diameter	5690.00	Kg			
237.00	DI K-12 Upto 300mm diameter	3000.00	Kg			
238.00	DI K-12 above 300mm diameter	2000.00	Kg			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
239.00	Providing, lowering, laying, aligning, fixing in position at all level/ depths CI Class - B double flanged specials as per IS : 7181 in trenches complete (excluding jointing) including all material, labour, testing and commissioning along with pipe line as per Technical Specifications and as per direction of Engineer					
240.00	Standard Specials	4000.00	Kg			
241.00	Non Standard Specials	4075.00	Kg			
242.00	Fabrication, supply of flanged/ plain ended MS pipe made from MS sheet strips of relevant IS specification of approved thickness by welding, lowering, laying, aligning, fixing in position at all level/ depths in trenches complete (excluding flanged jointing wherever required) including all material, labour, testing and commissioning along with pipe line as per Technical Specifications and as per direction of Engineer					
243.00	MS pipe specials upto 600mm dia (with minimum 5mm thickness sheet)	7875.00	Kg			
244.00	Providing, lowering, laying, aligning, fixing in position and jointing in pipe line single chamber automatic Ductile Iron Air Valves of following diameter (including jointing and jointing material), including all material, labour, testing and commissioning as per Technical Specifications and as per direction of Engineer					
245.00	80mm diameter	5.00	Each			
246.00	Providing, lowering, laying, aligning, fixing in position in pipeline, manually operated Resilient Seated D/F Sluice valves of approved make & design standard PN 1.0 class of following dia. complete (including jointing & jointing material) including all material, labour, testing and commissioning along with pipeline as per Technical Specification & as per direction of Engineer.					
247.00	80 mm dia	5.00	Each			
248.00	100 mm dia	180.00	Each			
249.00	125 mm dia	15.00	Each			
250.00	150 mm dia	14.00	Each			
251.00	200 mm dia	11.00	Each			
252.00	250 mm dia	12.00	Each			
253.00	300 mm dia	4.00	Each			
254.00	350 mm dia	4.00	Each			
255.00	400 mm dia	2.00	Each			
256.00	Providing, lowering, laying, aligning, fixing in position and jointing CI dismantling joint (suitable for sluice valves etc.) as per IS specifications complete of the following sizes including all jointing material, cost of all labour, testing and commissioning as per Technical Specifications and as per direction of Engineer					
257.00	80mm diameter PN 1.0	5.00	Each			
258.00	100mm diameter PN 1.0	180.00	Each			
259.00	125mm diameter PN 1.0	15.00	Each			
260.00	150mm diameter PN 1.0	14.00	Each			
261.00	200mm diameter PN 1.0	11.00	Each			
262.00	250mm diameter PN 1.0	12.00	Each			
263.00	300mm diameter PN 1.0	4.00	Each			
264.00	350mm diameter PN 1.0	4.00	Each			
265.00	400mm diameter PN 1.0	2.00	Each			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
266.00	Construction of RCC valve chamber for fixing different type of valves including earthwork excavation, plain cement concrete 1:3:6 (1 Cement : 3 fine/ coarse sand : 6 graded stone aggregate 20mm nominal size) as levelling course, Reinforced Cement Concrete of 1:1½:3 (1 Cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size) for base slab, side wall & cover slab with 600x600 mm DI manhole cover with frame, including cost of structural work, proper curing of concrete work and providing cover slab, SFRC steps with all material cost, labour cost, including all taxes and duties, with all lead and lift charges etc. complete as per standard specifications and drawings and also as directed by Engineer.					
267.00	80 mm dia	5.00	Each			
268.00	100 mm dia	180.00	Each			
269.00	125 mm dia	15.00	Each			
270.00	150 mm dia	14.00	Each			
271.00	200 mm dia	11.00	Each			
272.00	250 mm dia	12.00	Each			
273.00	300 mm dia	4.00	Each			
274.00	350 mm dia	4.00	Each			
275.00	400 mm dia	2.00	Each			
276.00	Providing, lowering, laying, aligning, fixing in position at and jointing at all level/ depths HDPE pipe accessories/ fittings of PE-100 grade & PN-6 for potable water moulded/ machined within pipeline in trenches complete including all material, labour, testing and commissioning as per Technical Specifications and as per direction of Engineer. (HDPE fittings suitable for Valve) Following HDPE Stub End (Long neck pipe end) with MS galvanised flange as per to BS-10 table D/IS:1538					
277.00	110mm HDPE Stub End (LNPE) with MS Galvanised Slip on flange Suitable connecting Valve of 100mm diameter	180.00	Each			
278.00	140/160 mm HDPE Stub End (LNPE) with MS Galvanised Slip on flange Suitable connecting Valve of 125mm diameter	15.00	Each			
279.00	200mm HDPE Stub End (LNPE) with MS Galvanised Slip on flange Suitable connecting Valve of 200mm diameter	11.00	Each			
280.00	250mm HDPE Stub End (LNPE) with MS Galvanised Slip on flange Suitable connecting Valve of 200mm diameter	12.00	Each			
281.00	315 mm HDPE Stub End (LNPE) with MS Galvanised Slip on flange Suitable connecting Valve of 200mm diameter	4.00	Each			
282.00	Disinfecting water mains by flushing with water containing bleaching powder at 0.50 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory.					
283.00	110mm dia	468720.00	metre			
284.00	140mm dia	67809.00	metre			
285.00	160mm dia	28552.00	metre			
286.00	200mm dia	30394.00	metre			
287.00	250mm dia	37745.00	metre			
288.00	280mm dia	9807.00	metre			
289.00	315mm dia	11042.00	metre			
290.00	350mm dia	8570.00	metre			
291.00	400mm dia	8932.00	metre			
292.00	450mm dia	1310.00	metre			
293.00	500mm dia	5770.00	metre			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
294.00	Construction of RCC valve chamber for fixing different type of valves including earthwork excavation, plain cement concrete 1:3:6 (1 Cement : 3 fine/ coarse sand : 6 graded stone aggregate 20mm nominal size) as levelling course, Reinforced Cement Concrete of 1:1½:3 (1 Cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size) for base slab, side wall and cover slab with ferro cement cover of class A loading, including cost of structural work, proper curing of concrete work and providing cover slab, SFRC steps with all material cost, labour cost, including all taxes and duties, with all lead and lift charges etc. complete as per standard specifications and drawings and also as directed by Engineer.					
295.00	200mm diameter	56.00	Each			
296.00	250mm diameter	82.00	Each			
297.00	300mm diameter	10.00	Each			
298.00	315mm diameter	6.00	Each			
299.00	350mm diameter	6.00	Each			
300.00	400mm diameter	2.00	Each			
301.00	450mm diameter	6.00	Each			
302.00	500mm diameter	2.00	Each			
303.00	Supply, fixing, testing and commissioning of Multi jet magnetic type water meter of with end coupling as per relevant technical specification with 7 years warranty and the direction of the Engineer , Class-B confirming IS:779-1996 / EEC/ MDIL					
304.00	15mm size	43324.00	Each			
305.00	25mm size	4748.00	Each			
306.00	Making 15 mm house service connection from water supply distribution pipe line upto water meter chamber, with HDPE (Class-PE 80) composite pipes of 20 mm Diameter below the ground & 15 mm GI pipe class B above the ground including supply and fixing of ferrules, Electrofusion tapping saddle for PE pipes/ clamps for DI/ welded for GI pipes, union, end plug, compression fittings including all material, labour, testing and commissioning as per technical specifications and the direction of the Engineer					
307.00	For Connection upto 10 M	34659.20	Each			
308.00	For Connection more than 10 M and upto 20 M	8664.80	Each			
309.00	METER BOX for 15 mm service connection water meter with Weather resistant PE, Lid fixing & locking: press fitted and locked with built-in or external lock for house sevice connections.	25994.40	Each			
310.00	Making 25 mm service connection from water supply distribution pipe line upto water meter chamber, with HDPE (Class-PE 80) composite pipes of 32 mm Diameter below the ground & 25 mm GI pipe class B above the ground including supply and fixing of ferrules, Electrofusion tapping saddle for PE pipes/ clamps for DI/ welded for GI pipes, union, end plug, compression fittings including all material, labour, testing and commissioning as per technical specifications and the direction of the Engineer					
311.00	For Connection upto 10 M	3798.40	Each			
312.00	For Connection more than 10 M and upto 20 M	949.60	Each			
313.00	METER BOX for 25 mm service connection water meter- with Weather resistant PE, Lid fixing & locking: press fitted and locked with built-in or external lock.	2848.80	Each			
314.00	Making 75 mm service connection from water supply distribution pipe line upto water meter chamber, with HDPE (Class-PE 80) composite pipes of 90 mm Diameter below the ground & 80 mm diameter (NB) GI pipe class B above the ground including supply and fixing of ferrules, Electrofusion tapping saddle for PE pipes/ clamps for DI/ welded for GI pipes, union, end plug, compression fittings including all material, labour, testing and commissioning as per technical specifications and the direction of the Engineer					
315.00	For Connection upto 10 M	1500.00	Each			
316.00	For Connection more than 10 M and upto 20 M	375.00	Each			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
317.00	METER BOX for 75 mm service connection water meter with Weather resistant PE, Lid fixing & locking: press fitted and locked with built-in or external lock.	1125.00	Each			
318.00	Part F: Electro mechanical work					
319.00	Providing, installation, testing and commissioning of SCADA Compatible Electromagnetic Flow meter etc. including all materials (excluding CI/DI fittings) and making connection with existing pipeline required for Electromagnetic Flow meter including cutting the existing pipe line etc., complete in all respect as per technical specification and as per direction of Engineer.					
320.00	EMF 200 for DN 200mm	3.00	Each			
321.00	EMF 250 for DN 250mm	4.00	Each			
322.00	EMF 300 for DN 315mm	3.00	Each			
323.00	EMF 350 for DN 350mm	3.00	Each			
324.00	EMF 400 for DN 400mm	1.00	Each			
325.00	EMF 450 for DN 450mm	3.00	Each			
326.00	EMF 500 for DN 500mm	1.00	Each			
327.00	Providing, installation, testing and commissioning of Bulk Flow Meter with removable mechanism class "B" confirming to IS: 4064/1 including all materials (excluding CI/DI fittings) and making connection with existing pipeline required for Bulk Flow Meter including cutting the existing pipe line etc complete in all respect as per technical specification and as per direction of Engineer					
328.00	BFM 80 for DN 80mm	1875.00	Each			
329.00	BFM 200 for DN 200mm	10.00	Each			
330.00	BFM 250 for DN 250mm	35.00	Each			
331.00	BFM 300 for DN 300mm	5.00	Each			
332.00	Providing, lowering, laying, aligning, fixing in position in pipeline, Resilient Seated, vacuum tight D/F Butterfly valves with electrical acuator (SCADA compatible) of approved make & design standard IS:13095 PN 1.0 class of following dia. complete (including jointing & jointing material) including all material, labour, testing and commissioning along with pipeline as per Technical Specification & as per direction of Engineer.					
333.00	In the DMA					
334.00	FCV 200 for DN 200mm	13.00	Each			
335.00	FCV 250 for DN 250mm	41.00	Each			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
336.00	FCV 300 for DN 300mm	8.00	Each			
337.00	FCV 350 for DN 350mm	3.00	Each			
338.00	FCV 400 for DN 400mm	1.00	Each			
339.00	FCV 450 for DN 450mm	3.00	Each			
340.00	FCV 500 for DN 500mm	1.00	Each			
341.00	Providing, lowering, laying, aligning, fixing in position and jointing in pipe line, dual plate check valves resilient seated in accordance with EN 12334 of PN 1.0 rating of following dia (including jointing and jointing material), including all material, labour, testing and commissioning as per Technical Specifications and as per direction of Engineer. (Non Return Valve)					
342.00	200mm diameter	2.00	Each			
343.00	250mm diameter	2.00	Each			
344.00	Providing, Supplying and fixing of DI D/F Pressure Reducing Valve as per standard/ technical specification and direction of Engineer-in-Charge etc., complete.					
345.00	150mm diameter	3.00	Each			
346.00	200mm diameter	4.00	Each			
347.00	350mm diameter	1.00	Each			
348.00	400mm diameter	1.00	Each			
349.00	Supply, Installation and Commissioning of Pressure sensor and Transmitters with accessories	100.00	Each			
350.00	Part G:Office Building, Consumer Service Centre					
351.00	Earth work in excavation in foundation, trenches etc. including dressing of sides and ramming of bottoms, including getting out the excavated material, refilling after laying foundation and disposal of surplus excavated material at a lead upto 50m suitable site as per direction of Engineer for following depths, below natural ground / Road top level					
352.00	In all types soils/ saturated soil such as moorum, sand, sandy silt, clay, black cotton soil, kankar, etc.	132.00	Cum			
353.00	In Ordinary rock	15.00	Cum			
354.00	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level					
355.00	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size (M15) Footing	6.80	Cum			
356.00	Form work Centering and shuttering upto two stories or height upto 7.5 metre above plinth level including strutting, propping etc. and removal of form for					
357.00	Foundations, footings, bases of columns, etc. for mass concrete	98.42	sqm			
358.00	Suspended floors, roofs, landings, balconies and access platform	58.50	sqm			
359.00	Lintels, beams, plinth beams, girders, bressumers and cantilevers	205.59	sqm			
360.00	Columns, Pillars, Piers, Abutments, Posts and Struts	58.80	sqm			
361.00	Reinforced Cement Concrete					
362.00	Providing and laying in position specified grade of reinforced cement concrete1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size) (M20) in Footing excluding the cost of centering, shuttering, finishing and reinforcement - All work upto plinth level	24.60	Cum			
363.00	Reinforced cement concrete 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size) (M20) work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. upto two stories excluding cost of centering, shuttering, finishing and reinforcement	5.15	Cum			
364.00	Reinforced cement concrete M-20 Grade Concrete (1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size) -As per design mix) work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases upto two stories excluding the cost of centering, shuttering, finishing and reinforcement	22.82	Cum			
365.00	Random rubble masonry with hard stone in Cement mortar 1:6 (1 cement : 6 coarse sand) in foundation and plinth	15.00	Cum			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
366.00	Random rubble masonry with hard stone in cement mortar 1:4 (1 cement : 4 coarse sand) in foundation and plinth.	15.00	Cum			
367.00	Brick work with bricks of class designation 75 in superstructure above plinth level upto two stories in all shapes and sizes in Cement mortar 1:4 (1 cement : 4 coarse sand)	35.12	Cum			
368.00	Half brick masonry with bricks of class designation 75 in superstructure above plinth level upto two stories in Cement mortar 1:4 (1 cement :4 coarse sand)	12.88	Sqm			
369.00	Earth filling with available surplus soil excavated from foundations and taken only from outside of building plinth in layers not exceeding 20cm in depth, consolidating each deposited layer including ramming and watering and consolidation with lead up to 50m and lift upto 1.5m.	46.50	Cum			
370.00	Carriage of excavated earth materials by mechanical transport including loading, unloading and stacking with all lead & lift. (average lead 2.0 km)	99.70	Cum			
371.00	Providing laminated veneer lumber conforming to IS:14616 and TAD-15: 2001 (Part B) in factory made frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position as per directions of Engineer-in-charge	1.52	cum			
372.00	Providing and fixing ISI marked flush door shutters conforming to IS:2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters 35mm thick including ISI marked Stainless Steel butt hinges with necessary screws	6.00	sqm			
373.00	25mm thick PVC flush door shutters made out of a one piece Multichamber extruded PVC section of the size of 762mm X 25mm or less as per requirement with an average wall thickness of 1mm ± 0.3mm. PVC foam end cap of size 23x10mm are provided on both vertical edges to ensure the overall thickness of 25mm. An M.S. tube having dimensions 19mm x 19mm is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25mm X 11mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufactures' specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places	5.00	sqm			
374.00	Providing and fixing factory made door frame (single rebate) made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 60mm width & 30mm thickness and shall be fixed to wall as per instructions of engineer-in-charge using 100x8 sheet metal CSK screws	14.00	metre			
375.00	Reinforcement for RCC work at all levels i/c straighteing, cutting, bending, placing, in position and binding all complete, Thermo mechanically treated bars.	5257.00	Kg			
376.00	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	5.00	cum			
377.00	Marble tiles (polished) Raj Nagar work in skirting, risers of steps and dado (upto 2 m height) over 12 mm thick bed of cement mortar 1:3 (1 cement :3 coarse sand) and jointed with grey cement slurry @ 3.3 kg/sqm including pointing in white cement mixed with pigment of matching shade complete	9.00	Sqm			
378.00	Raj Nagar plain marble stone flooring with 18mm thick marble stone (sample of marble shall be approved by Engineer-in-charge) over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry including rubbing and polishing complete with	41.00	Sqm			
379.00	Precast terrazo tiles 22mm thick with graded marble chips of size upto 12mm laid in floors, and landings, jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete with precast tiles on 20mm thick bed of cement mortar 1:4 (1 cement :4 coarse sand) : Medium shade using 50%white cement and 50% ordinary cement. Over roof, qty same as flooring	41.00	Sqm			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
380.00	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete	22.00	sqm			
381.00	Providing and laying Ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc., complete.	7.06	sqm			
382.00	Random rubble dry stone Kharanja (soling) under floor	7.00	cum			
383.00	Providing and fixing on wall face Unplasticised Rigid PVC rain water pipes conforming to IS:13592 Type A including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion. Single socketed pipes 110mm diameter	32.00	m			
384.00	Cement plastering including T&P, scaffolding, material and complete labour, including cost of water, curing, racking of joints etc. with 20mm cement plaster on rough side of brick wall finished with a floating coat of neat cement of mix 1:3 (1 cement : 3 fine/ coarse sand) Outer plastering : 20mm plaster on brick work	121.80	Sqm			
385.00	Cement plastering including T&P, scaffolding, material and complete labour, including cost of water, curing, racking of joints etc. with 12mm cement plaster finished with a floating coat of neat cement of mix 1:3 (1 cement : 3 fine/ coarse sand) Inner plastering : 12mm plaster on brick work	171.00	Sqm			
386.00	Distempering with dry distemper of approved brand and manufacture (two or more coats) and of required shade on new work, over and including priming coat of whitening to give an even shade.	171.00	sqm			
387.00	Finishing walls with water proofing cement paint of required shade for new work (Two or more coats applied @ 3.84 kg/10 sqm) Outside (As per outside plastering area)	122.00	sqm			
388.00	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/ 10 sqm of approved brand or manufacture.	6.00	sqm			
389.00	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes PN - 16 Pipe, 16 mm OD SDR 7.4 U V stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply including all PP - R plain & brass threaded polypropylene random fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases and making good the same including testing of joints complete in Concealed work including cutting chases and making good the wall etc. as per direction of Engineer in Charge	20.00	metre			
390.00	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) 20mm nominal outer dia. Pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This included jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete for External work as per direction of Engineer in Charge	50.00	metre			
391.00	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. for Internal work - Exposed on wall:					
392.00	15 mm dia. nominal bore	50.00	metre			
393.00	25 mm dia. nominal bore	50.00	metre			
394.00	Providing and fixing brass bib cock 15mm nominal bore of approved quality	2.00	Each			
395.00	Providing and fixing brass stop cock 15mm nominal bore of approved quality	2.00	Each			
396.00	Providing and fixing 25mm nominal bore gun metal gate valve with C.I. Wheel of approved quality	2.00	Each			
397.00	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet and 100mm diameter	2.00	Each			
398.00	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank	2000.00	per litre			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
399.00	Providing and fixing PTMT extension nipple 15 mm nominal bore and Weighing not less than 32 gms for water tank pipe, fittings of approved quality and colour	2.00	Each			
400.00	Providing, laying and jointing glazed stoneware pipes 100mm diameter grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete	50.00	metre			
401.00	Constructing brick masonry road gully chamber 50x45x60 cm with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450mm precast R.C.C. horizontal grating with frame complete as per standard design with bricks	2.00	Each			
402.00	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required W.C. pan with ISI marked white solid plastic seat and lid	2.00	Each			
403.00	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require White Vitreous China Wash basin size 630x450 mm with a pair of 15mm C.P. brass pillar taps	2.00	Each			
404.00	Providing and fixing mirror of superior glass Circular shape 450mm dia. (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing	2.00	Each			
405.00	Providing and fixing C.P. brass toilet paper holder	2.00	Each			
406.00	Providing and fixing soil, waste and vent pipes 100 mm diameter: Sand cast iron S&S pipe as per IS: 1729	12.00	metre			
407.00	Providing and fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partition etc. with 6mm thick clear float glass both side having 12mm air gap including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. as per specifications, drawings and direction of Engineer-in-charge complete.	17.00	sqm			
408.00	Polyester powder coated minimum thickness 50 micron aluminium tubular handle bar for bath room	2.00	Each			
409.00	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete For Bath room doors (Inside & outside)	4.00	Each			
410.00	Providing fixing aluminium round shape handle of outer dia. 100mm with SS screws etc. complete as per direction of Engineer-in-charge, Anodized (AC15) Aluminium For other doors (Inside & Outside)	6.00	Each			
411.00	PVC Insulated Wiring in PVC Casing Capping for light point / fan point / exhaust fan point / call bell point with 1.5 sq.mm FR PVC insulated unsheathed 1.1kV grade flexible copper conductor and 1.5 sq.mm FR PVC insulated copper earth conductor (IS:694) of approved make in double lock/ ISI marked single lock pvc casing capping & it's accessories, 18 SWG M.S. box with earth terminal, screwless cage connectors for neutral looping in switch board & false ceiling point, 6 A switch 3.0 mm thick phenolic laminated sheet, zinc plated / brass screws, cup washers , making connections, testing etc. as required Group 1					
412.00	Short point (upto 3 mtr.)	12.00	P.Point			
413.00	Medium point (upto 6 mtr.)	10.00	P.Point			
414.00	Long point (upto 10 mtr.)	8.00	P.Point			
415.00	PVC Insulated Wiring in PVC Casing Capping for 3 pin 6 amp. Light plug point with 1.5 sq. mm FR PVC insulated unsheathed 1.1 kV grade flexible copper conductor and 1.0 sq.mm FR PVC insulated unsheathed 1.1 kV grade copper earth conductor (IS:694) of approved make double lock/ ISI marked single lock pvc casing capping & it's accessories, 18 SWG M.S. box with earth terminal, screwless cage connectors for neutral looping in switch board & false ceiling point, 6 A switch, 6 A socket, 3.0 mm thick phenolic laminated sheet, zinc plated / brass screws, cup washers, making connections, testing etc. as required, Group 1					
416.00	On board	8.00	P.Point			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
417.00	Short point (upto 3 mtr.)	5.00	P.Point			
418.00	PVC Insulated Wiring in Steel Conduit for 6 pin 15 amp. power point with 4.0 sq.mm PVC insulated unsheathed solid / stranded copper conductor 1.1 kV grade of approved make in surface / recessed ISI marked steel conduit & it's accessories, 18 SWG M.S. box with earth terminal, screw less cage connectors for neutral looping in switch board, 15 A switch, 15 A socket, 3.0mm thick phenolic laminated sheet, zinc plated / brass screws, cup washers, bushes, check nuts, making connections, testing etc. as required. Group- 1					
419.00	Short point (upto 3 mtr.)	5.00	P.Point			
420.00	Medium point (up to 6 mtr.)	5.00	P.Point			
421.00	Long point (up to 10 mtr.)	1.00	P.Point			
422.00	Supplying and drawing FR PVC insulated & unsheathed flexible copper conductor ISI marked (IS:694) of 1.1 kV grade and approved make in existing surface or recessed conduit/casing capping including making connections etc. as required. Group- 1					
423.00	2 x 2.5 sq.mm	100.00	metre			
424.00	2 x 4.0 sq.mm	100.00	metre			
425.00	P & F 18 SWG Sheet steel boxes duly finished with two coats of red oxide and with earthing terminal of following sizes (nominal size) on surface or in recessed as required.					
426.00	100mm x 100mm x 50mm	11.00	Each			
427.00	225mm x 100mm x 60mm	8.00	Each			
428.00	P&F 240/415 V MCB of breaking capacity not less than 10 KA (B/ C/ D tripping characteristic) ISI marked IS:8828(1996) / conforming to IEC 60898 in existing board/sheets including making connections with lugs, testing etc. as required, Group -1					
429.00	Single pole MCB 6 A to 32 A rating	8.00	Each			
430.00	Four pole MCB 40 A to 63 A rating	2.00	Each			
431.00	P&F 240/415 V Residual current circuit breaker conforming to IS:12640:1988/ IEC 61008 on existing board/ sheet including making connections with lugs, testing etc. as required, Group -1 Four pole 100/300 mA sensitivity 25-40 A rating	1.00	Each			
432.00	P&F Recessed/ Surface mounting heavy duty horizontal type sheet steel Distribution board phopatised/ powder painted complete with copper bus bar, shorting link , neutral link, earth link and din bar, conforming to IS13032 & IS8623 including making internal DB terminations with copper lugs , testing etc. as required, Group -1 Single door (Three phase) 8 Way	1.00	Each			
433.00	P & F following modular accessories made out of unbreakable and fire retardant poly carbonate with silver contacts including making connections testing etc. as required, Group -1 6 A one way switch	35.00	Each			
434.00	P & F of energy analyser (multy function energy meter) with LCD/ LED display capable of minimum 20 numbers electrical parameters display with 1A/5A CT input for LV/ HV network, RS 485 communication port etc. complete in all respect.	1.00	Each			
435.00	SF of CT operated direct reading type Ampere meter on existing panel , making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required. Analog type (96 mm x 96 mm)					
436.00	Below 500A	1.00	Each			
437.00	SF of Current Transformer , with all necessary support in existing panel including connection etc. as required .					
438.00	from 200 / 5 to 400/5 Ratio , 10 VA , class 1 accuracy	4.00	Each			
439.00	SF of CT linked selector switch of 10 A for Ampere meter (4 position) including making connection etc. as required .	1.00	Each			
440.00	SF of (0-500) V range Volt meter on existing panel , making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required.					
441.00	Analog Type (96 mm x 96 mm)	1.00	Each			
442.00	SF of selector switch for voltmeter (4 position) including making connection etc. as required .	1.00	Each			

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1	2	3	4	5	6	7
443.00	SF of 240/220 V, LED (22.5 mm dia) Pilot lamp with integral circuit, terminal block, including connection etc. as required.					
444.00	Red/yellow/Green colour	3.00	Each			
445.00	SITC of quick make and quick break 4 POLE current limiting MCCB having following current rating, short circuit breaking capacity at 440/415 V, 50 Hz; O/L & S/C settings and conforming to IS 13947-2 / IEC 60947-2 with front face and centralised adjustable, line load interchangeability, having positive isolation capability, provision for UVR , shunt trip, earth fault trip, push (test) to trip, including making connections with lugs / spreaders etc. as required, Group -1 With Thermal Magnetic Release upto 100 Amp, 10 kA, fixed O/L & S/C setting	1.00	Each			
446.00	Ceiling, Fresh Air, Exhaust & Ventilation Fans and Air Circulator Making of hole in wall of required size for housing exhaust fan and making good the same, with cement plaster as required of following size, Group -1 Upto 457 mm size	3.00	Each			
447.00	Fixing of fresh air fan/exhaust fan up to size of 300mm on ply/ poly board of 6.0 mm in existing window frame including cutting of hole in ply. Nut bolts etc. as required, Group -1	3.00	Each			
448.00	I T C of ceiling fan and regulator including wiring the down rod upto 30 cm with 3 x 1.5 sq.mm PVC insulated flexible copper conductor making connection testing etc. as required., Group -1 With regulator	2.00	Each			
449.00	P & F double ball bearing capacitor start ceiling fan of approved make complete with regulator and other accessories as required. (for estimation purpose only), Group -1 900mm sweep	8.00	Each			
450.00	P&F of Heavy duty capacitor start 900/1400 RPM single phase ISI marked Exhaust fan, IS:2312 marked in existing opening including making connections testing etc. as required, Group -1 300mm sweep (900/1400 RPM)	6.00	Each			
451.00	P & F strip type fluorescent tube fitting fabricated from (CRCA sheet and finished with powder coating / stove enamelled paint)/(extruded non corrosive UV resist EP channel) complete with accessories like (OCCB, starter, starter seat)/ EB, rotor holder, terminal block duly prewired with copper conductor including making connection, testing etc. as required. (without tube), Group -1 1 X 36 Watts with EB	8.00	Each			
452.00	P & F box type fluorescent tube fitting fabricated from CRCA sheet and finished with powder coating / stove enamelled paint complete with accessories like (OCCB, starter, starter seat)/ EB, condenser, rotor holder, terminal block duly prewired with copper conductor including making connection, testing etc. as required. (without tube), Group -1 2 X 36 Watts with EB	8.00	Each			
453.00	P & F Fluorescent tube rod in existing fixtures as required Fluorescent powder coated 36/40 Watts, Group -1	24.00	Each			
454.00	P & F energy efficient direct fit (Retrofit) composite compact fluorescent lamp of energy saving labelling not less than 3 star in existing holder/ fixture as required 18/20 Watt, Group -1	6.00	Each			
455.00	P & F round/square shape surface mounting ceiling fitting complete with holder, aluminium anodized back plate glass globe of approved design, prewired terminal block making connection, testing etc. as required 150mm , Group -1	4.00	Each			
456.00	P & F IP-43 protected street light luminaire on existing bracket suitable for FTL, made out from CRCA sheet steel finished with stove enameled paint, having deep drawn aluminium alloy canopy reflector cum control gear tray, clear ribbed acrylic diffuser held with synthetic gasket, with all necessary accessories copper wound ballast, capacitor, starter, holder prewired with pvc insulated copper conductor including making connection testing etc. as required. (without tube), Group -1 1 X 36 Watts with EB	8.00	Each			
457.00	P & F IP-65 protected street light luminaire on existing bracket suitable for HPSV/ MH LAMP, made out from powder coated single piece die cast aluminium housing, electrochemically brightened and anodized POT optics aluminium reflector, heat resistant and toughened glass cover and accessories like copper ballast, electronic ignitor, capacitor, holder prewired upto terminal block etc. as required including making connection testing etc. as required (without lamp), Group -1 1 X 70 Watt	1.00	Each			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
458.00	P & F IP65 protected decorative lighting luminaire Post top/ Bollard suitable for following lamps, made of powder coated cast aluminium housing, moulded acrylic lamp compartment with built in anodized aluminium louvers for lamp shielding and glare control, metallic lid top cover, including the cost of control gear complete in all respect. Bollards are including cost of decorative base pipe/ plate. (without lamp), Group -1 70 Watt Metal Halide Bollard	1.00	Each			
459.00	Supply, Drawing and Testing of 4 pair , 100 ohm, 24 AWG UTP E Cat 5 Cable as per latest amendments of TIA /EIA 568 B.2 Specifications in existing MS/PVC Conduits including making connections to Information outlets and Patch Panels with ferruling at both ends for identification with necessary tools for punching, stripping, crimping and testing required, Group -1	100.00	metre			
460.00	SITC of Air Cooled split Air conditioners complete with Indoor unit(IDU), Outdoor unit (ODU), surface / concealed copper Refrigerant piping with insulation (EP foam pipe section) upto 10Mtr (IDU to ODU), copper power cable upto 10 Mtr (IDU to ODU), R-22 Refrigerant suitable for 400/230V +10% of 50 Hz 1 /3 AC supply capable of performing COOLING, DEHUMIDIFICATION, AIR CIRCULATION, FILTRATION & VENTILATION of following capacity with reciprocating/ rotary/ scroll compressor as specified (Wall/Ceiling Mounted)					
461.00	1.50 ton	1.00	Each			
462.00	2 ton	2.00	Each			
463.00	Providing and fixing charged ABC type fire extinguisher including the cost of fixing with nut, bolts etc as required 5kg	2.00	Each			
464.00	Formation of Internal Road (3.75m wide & 200m length) Dressing of earth work in surface excavation including cutting and filling upto 30cm depth including disposal of excavated earth upto 50m and lift upto 1.5 m.	750.00	sqm			
465.00	Construction of embankment with approved material obtained from borrow pit with all lifts and leads, transporting to site, spreading, grading to required slope and compacting by vibratory roller 8-10 tonne to meet requirement of table 300-2 including cost of compensation for earth taken from private land complete as per MoRT&H specification clause 305. (Lead taken upto 5 km)	225.00	cum			
466.00	Providing, laying, spreading and compacting of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per MoRT&H specification clause - 401 including all material, labour, machinery, lighting, guarding and maintenance of diversion Grading - I Material	112.50	cum			
467.00	Providing, laying, spreading (with paver finisher only) and compacting wet mix macadam (WMM) base course comprising of graded stone aggregate and granular material conforming to MORT&H specifications (Table 400-II) in layers of equal compacted thickness each consolidated, including pre-mixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tippers to site, laying in uniform layers in base course on a well prepared sub-base/ base course and compacting with power vibratory-roller to achieve the desired density complete as per MoRT&H specification clause - 406 including all material, labour, machinery, lighting, guarding and maintenance of diversion	112.50	cum			
468.00	Providing and applying tack coat on the prepared surface with bitumen emulsion as per IS: 8887 and approved quality @ 0.225 kg/sqm with the help of spray set fitted on bitumen Container (boiler) after cleaning the surface with brooms or soft brushes and finally dusting with old gunny bags and compressed air to receive bituminous treatment complete as per clause 502 of MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion	750.00	sqm			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
469.00	Providing and applying primer coat over prepared surface of granular base with bitumen emulsion as per IS : 8887 and approved quality @ 0.75 kg/sqm with the help of spray set fitted on bitumen Container (boiler) after cleaning the surface including removing of binding material and other foreign matter with wire brushes and small picks, sweeping with brooms or soft brushes and finally dusting with old gunny bags and compressed air to receive bituminous treatment complete as per clause 502 of MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion.	750.00	sqm			
470.00	Providing laying and consolidation Semi Dense Bituminous Concrete, as per Design Mix (approved by Engineer), on prepared surface with specified graded crushed aggregates as per table 500- 15 for wearing coarse including loading of material with F.E. loader, hot mixing of stone aggregate, filler and bitumen (including cost of anti-stripping compound wherever required) heating and mixing in in computerised hot mix plant, transporting the mixed material by tippers to paver and laying with paver finisher fitted with electronic sensor control to the required level and grade, compacting by power rollers and vibratory rollers or 150 to 250 KN pneumatic tyred roller with TP = 0.7 Mpa, to achieve the desired density (approximately 2.3 tonne/cum) complete as per clause 508 o f MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion but excluding primer/tack coat. 25-30 mm compacted thickness (Grade-2) using Bitumen VG-grade 30 @ 5% (percent by weight of total mix)	18.75	cum			
471.00	Providing and laying bituminous macadam in 50/75mm compacted thickness on prepared surface with specified graded crushed stone aggregates as per Table 500-4, Grading-II for base/ binding course, loading of aggregate with F.E. loader, heating and mixing of stone aggregate and bitumen in computerised hot mix plant, transported to site by tippers to paver, laid over a previously prepared surface with paver finisher fitted with electronic sensing device to the required grade, level and alignment and rolling with power roller and vibratory compactor as per clauses 501.6 and 501.7 to achieve the desired compaction complete as per clause 504 of MoRT&H specification and including all material, labour, machinery, lighting, guarding and maintenance of diversion but excluding cost of primer/ tack coat. With Bitumen VG-grade 30 @ 3.3% (percentage by weight of total mix)	37.50	cum			
472.00	Providing and fixing of following furniture in office room & Consumer Service centre, the cost including loading, unloading and transportation charges etc. complete as directed by the Engineer-in-charge.	1.00	Set			
473.00	Executive Table of Size of 2135 mm x 865mm - height 735mm- 4 nos.					
474.00	Table of Size of 1675mmx865mm - height- 750mm- 32 nos.					
475.00	Computer Table of Size of 73 mm(w) x 88mm(D) x 75mm(H)- 30 nos.					
476.00	Revolving Chairs With Arms of Size of 66mm(d)x66mm(w) Height - 102.5mm-114.5mm Seat height -44mm-56mm- 60 nos.					
477.00	Visitor Chair of Size of 46mm(w)x82mm(h) Seat height – 45mm- 100 nos.					
478.00	Steel Almira of Sizes 1980mmx915mmx485mm (Big) & 1270mmx765mmx440mm (Small)- 10 nos.					
479.00	Filing Cabinet - 20 nos.					
480.00	Locker- 1 no.					
481.00	Drawing Cabinet : Overall dimension - 625mm(h) x1170mm (w) x865mm (d) Drawer dimension - 65mm(h) x1040mm (w) x780mm (d) No. of drawers – 6					
482.00	Meeting / Conference Table - 1 no.					
483.00	Ordinary Cane Chair : 43mm(w) x 57mm(d) x 88.5mm(h) 45mm seat height- 50 nos.					
484.00	Side Racks: 5 tier - 1800mmx900mmx375mm- 10 nos.					
485.00	Sofa Set- 2 nos.					
486.00	Central Table-10 nos.					

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
487.00	Providing Solar Outdoor Lights with PV module, Batteries, Cable as per IS:1694/IS:155 including earthwork, pole erection and fixing of Solar lamp accessories etc. complete as directed by the Departmental Engineers. (Wattage : 40 W, PV Module : 150 W and Battery : 150 AH and Pole height of 6.0m)	6.00	Nos.			
488.00	P & F IP-65 protected street light luminaire on existing bracket suitable for HPSV/ MH LAMP, made out from powder coated single piece die cast aluminium housing, electrochemically brightened and anodized POT optics aluminium reflector, heat resistant and toughened glass cover and accessories like copper ballast, electronic ignitor, capacitor, holder prewired up to terminal block etc. as required including making connection testing etc. as required (without lamp) (Group-1)					
489.00	1 X 150 Watt	10.00	Each			
490.00	P & F High pressure sodium vapour/ High pressure mercury vapour/ Metal halide/ Halogen lamp as required. (Group-1)					
491.00	125W	10.00	Each			
492.00	Supply and erection of hot dipped galvanised steel swaged tubular pole conforming to IS: 2713-1980 (part I to II) with galvanised base plate of size 400mm x 400mm x 7mm in position including excavation of the pit and filling the same with C.C. of M-10 grade (1:3:6) from base plate to 50cm above ground level, with the help of steel frame not less than 40 cm dia up to 114.3mm outer dia and 50 cm beyond 114.3mm outer dia around the pole. Duly finished with cement plaster, earthing terminals , cable entry, GI cable sleeve complete as required. The pole shall be galvanised using ISI mark tube for structural purpose. (SEE TABLE)					
493.00	8.5 mtr (Group-1)	10.00	Each			
494.00	Add for supply and fixing of hot dipped galvanised Overhang of following size over the existing poles (Group-1)					
495.00	76.1mm OD x 3.25mm thickness	10.00	Each			
496.00	Providing andFixing of marshalling box on street light pole with 2 mm CRCA sheet steel, 6 amp 2 nos. MCB bakelite sheet, insulators, connectors, etc. As required size 200 mmx 100mmx375 mm	10.00	Each			
497.00	Providing andFixing of pillar box for street light with 2 mm CRCA sheet steel, 63 amp LT disconnectors switch fuse units, bakelite sheet, insulators, connectors, etc. As required size 500 mmx 100mmx375 mm with tapered top.	1.00	Each			
498.00	P/laying XLPE insulated / PVC sheathed cable of 1.1 KV grade with aluminium conductor armoured of IS:7098-I/1554-1 approved make in ground as per IS:1255 including excavation of 30 cmx 75 cm size trench, 25 cm thick under layer of sand , lind class bricks covering, refilling earth, compaction of earth, making necessary connections, testing etc. as required of size:					
499.00	3.5 core x 25 sqmm	350.00	Meter			
500.00	4 core x 2.5 sqmm	100.00	Meter			
501.00	Plate Earthing as per IS:3043 with copper Earth plate of size 600mm x 600mm x 3.0mm by embodying 3 to 4 mtr. below the ground level with 20 mm dia. G.I. 'B' class watering Pipe including all accessories like nut, bolts, reducer, nipple ,wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size300mm x 300mm complete with alternate layers of salt and coke/charcoal, testing of earth resistance as required.	2.00	Each			
502.00	S & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required. 8 SWG GI strip					
503.00	25mm x 3mm GI strip	40.00	Meter			
504.00	Part H: Restoration works of Lakhotia Talab					
505.00	Earth work in excavation in soil unsuitable for road construction such as marshy soil including pumping out water, removal of the same and disposal with all lift and lift upto 1 km as per MoRT&H specification clause 301.	26330.40	Cum			
506.00	Dressing of bed and preparation of sub grade for lining, including removal of irregularities up to 7.5 cm.	97500.00	Sqm			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
507.00	Supplying, Laying and Spreading of LDPE film of 250 micron thickness as per IS Specifications on sub grade including jointing & cost of jointing material etc.	97500.00	Sqm			
508.00	Earth work in excavation in foundation, trenches etc. including dressing of sides and ramming of bottoms, including getting out the excavated material, refilling after laying pipe/ foundation and disposal of surplus excavated material at a lead upto 50m suitable site as per direction of Engineer for following depths, below natural ground / Road top level.Depth upto 1.5 m	588.42	Cum			
509.00	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level :1:4:8 (1 Cement : 4 fine/ coarse sand : 8 graded stone aggregate 40 mm nominal size).	329.49	Cum			
510.00	Random rubble masonry with hard stone in foundation and plinth :Cement mortar 1:4 (1 cement : 4 coarse sand)	955.35	Cum			
511.00	Stone work, plain in copings, cornices, string courses and plinth courses, upto 75 mm thick in Cement mortar 1:6 (1 cement : 6 coarse sand) including pointing with white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade.White sand stone	146.06	Cum			
512.00	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) :Flush/ Ruled pointing	657.00	Sqm.			
513.00	Providing and fixing 50 mm dia G.I. steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 metres high above ground, 2 m centre to centre, complete as per approved drawings including all material, labour.	292.00	Sqm.			
514.00	Providing and laying un-reinforced, dowel jointed, plain cement concrete mix in pavement over a prepared sub base with 43 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to IS: 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades complete as per drawing and as per clause 602, 112 of MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion.	96.00	Cum			
515.00	Supply and erection of Decorative Cast Iron pole as per approved design of following length with base plate on the cement concrete foundation of M-15 grade (1:1.5:3) with the help of anchor bolts of grade 6.8 (IS 1367 P III). The pole shall be made of Cast Iron as per IS 210:1993, precision machining and filling job to achieve good finish and a fine coat of primer on each element before assembling. After assembling of each element one coat of primer and two coats of P.U. paint are applied. Approved coloured UV resist coating of mat/ glossy/ metallic finish followed after air drying of pole. The pole shall have a weatherproof flush door and locking arrangements, two/ one arm bracket of length of 430/380mm complete in all respect.3 Mtr.	36.00	Nos.			
516.00	P/ F IP-65/ IP-66 protected street light luminaries on existing bracket. Fixture made from powder coated single piece pressure die cast aluminum housing with heat dissipation fins on housing with high power LEDs of CREE/ NICHIA/ OSRAM/ PHILIPS make. Diffuser / RUIDP 356 SOR SEPTEMBER 2013 Code Rate Rs.No Description Unit Group 1 Group 2 glass cover for ensuring IP-65 protection for lamp and control gear compartment, system lumen output of 1500—8500 high power LED. Integrated driver shall be high efficiency having efficiency more than 85 % and in compliance to IEC tandards. System life of 25000 burning hours with 70 % of initial lumens maintained . Fixture shall be in CE compliance.LED street light fixture 20-25 watt	72.00	Nos.			
517.00	Providing and laying PVC insulated and PVC sheathed cable of 1.1. KV grade with aluminum conductor of IS 1554 P-1 of group 1 of approved make in ground as per IS:1255 including excavation of 30 cm & 75 cm size trench 25 mm thick under layer of sand IInd class brick covering refilling earth compacted of earth, making necessary connection, testing etc. as required of size 10 sq.mm 2 core armored cable.	1900.00	Mtr.			

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1	2	3	4	5	6	7
518.00	Plate Earthing as per IS:3043 with G.I. Earth plate of size 600mm x600mm x 6.0mm by embodying 3 to 4 mtr. below the ground level with 20 mm dia. G.I. 'B' class watering Pipe including all accessories like nut, bolts, reducer ,nipple, wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size300mm x 300mm complete with alternate layers of salt and coke/charcoal, testing of earth resistance as required.	4.00	Nos.			
519.00	S & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required 8 SWG G.I. Wire	1200.00	Mtr.			
520.00	Supplying and drawing FR PVC insulated & unsheathed flexible copper conductor ISI marked (IS:694) of 1.1 kV grade and approved make in existing surface or recessed conduit/casing capping including making connections etc. as required 2 x 2.5 sq.mm	500.00	Mtr.			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
521.00	<p>Providing and fixing testing and commissioning of Kiosk type weather proof distribution feeder pillar box of size 600 x 450 x 1000mm with a taper of 75mm at top (for protection from rain water) and made out of 3.2 mm (10 gauge) thick CRCA MS Sheet, front and back both side openable, duly hinged doors with locking arrangement by providing both sides hold drafts and all hardware for fabrication of box. The cubical panel should be dust and vermin proof followed by two coats of enamel paint and primer. The cubical panel should be mounted with hardware on angle iron frame 40 x 40 x 6m and 600mm long legs duly primered and black painted. Frame be grouted with cement concrete 1:3:6 ratio in 150 x 150 x 750mm and providing brick masonry along angle iron frame above ground level. The panel should comprise of as per following :(a) P/F of 2 Nos. knife switch 400 amp. with U contacts studs and washers etc.(b) P/F of 32 amp Category-I make MCBs, 10 Nos.double pole. & 5 nos. TPN (c) P&F of connecting strips of 63 amp. 4 pole.(d) Bakelite sheet 10mm thick and size 3'x2'. (e) Epoxy insulators 40mm: as per requirement. (f) PVC copper wire 10 sq.mm. flexible connecting to bus bars to MCB's and MCB to connectiong stips in proper manner. (g) copper bus bar double and D-Type of size 30 x6mm strip approx. 1.5' long, 8 no. with hardware.(h) Provision of cable clamps at side of box and base plate with cable glands of suitable size</p>	1.00	Nos.			
522.00	Part I : Plantation Work					
523.00	Trenching in specified soil upto a depth of 60 cm. including removal and stacking of seviceable materials and then disposal by spreading and neatly leveling within a lead of 50 metres and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or/and farm-yard manure before and after flooding with water (excluding cost of imported earth and sludge or farm-yard manure).	1500.00	cum			
524.00	Prepration of mounds of various size and shape by available excavated/surplus/earth in layers not exceeding 20 cm in depth, breaking clods, watering of each layer, dressing etc. lead upto 50 metres and lift upto 1.5 m as per direction of officers in charge.	2500.00	cum			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
525.00	Supplying and stacking good earth at site of work. Note: (1) Loading, unloading and carriage to be paid extra as per actual lead. (2) Earth measured in stacks will be reduced by 20% for payment.	1500.00	cum			
526.00	Supply at site of work well decayed farm yard manure, from any available source, approved by engineer in charge including screening and stacking.	500.00	cum			
527.00	Supplying and stacking of well decayed cow dung manure at site.	500.00	cum			
528.00	Supply at site work/ store-deoiled neem cake duly packed in used gunny bags.	10.00	quintal			
529.00	Supplying sludge duly stacked at site/ store.	100.00	cum			
530.00	Rough dressing the trenched ground including breaking of clods.	5000.00	sqm			
531.00	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	5000.00	sqm			
532.00	Fine dressing the ground.	5000.00	sqm			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
533.00	Grassing with 'Doobs grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for moving including supplyinh good earth if needed. In rows 7.5 cm apart in either direction.	3000.00	sqm			
534.00	Planting of trees by road side (Avenue trees) in 0.60 m dia holes, 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for one year.	50.00	each			
535.00	Providing and fixing of RCC pre cast tree guard consisting of four panels of size 1800mm (Height) x 600mm (Width) x 35mm (thickness), Size of opening : 100mm x 100mm. All the panels shall be manufactured with monolithic legs of size 50 x 35 mm, the legs of the panels shall be 0.5 m below ground level. All the four Panels shall have a space for display of Name etc. preferably at middle level. RCC panels to be manufactured with M-30 grade of concrete using vibro-compaction process using jointless FRP moulds so as to achieve shuttering finish. RCC panels are to be suitably reinforced to promote long use and to prevent damage during handling, transportation & erection as per drawing & specifaions.	200.00	each			
536.00	Supplying and planting following species best quality container grown healthy trees of 2 mt. min. height, well established & free from disease at site in 0.90 m dia holes, 1 m deep dug in the ground , mixing the soil with decayed farm yard/sludge manure, backfilling the hole watering etc as required.					
537.00	Plumeria alba (Champa)	50.00	each			
538.00	Gulmohar (Delonix regia)	50.00	each			
539.00	Neem(Azadirachta indica)	50.00	each			
540.00	Bougain villea	50.00	each			
541.00	Part J- Road Restoration					
542.00	Providing, laying, spreading and compacting of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers manually (in trench) / with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per MoRT&H specification clause - 401 including all material, labour, machinery, lighting, guarding and maintenance of diversion Grading - I Material	43817.00	cum			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
543.00	Providing, laying, spreading and compacting wet mix macadam (WMM) base course (with paver Finish Only) comprising of graded stone aggregate and granular material conforming to MORT&H specifications (Table 400-II) in layers of equal compacted thickness each consolidated, including pre-mixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tippers to site, laying in uniform layers in base course on a well prepared sub-base/ base course and compacting with power vibratory-roller to achieve the desired density complete as per MoRT&H specification clause - 406 including all material, labour, machinery, lighting, guarding and maintenance of diversion	52755.00	Cum			
544.00	Providing and applying tack coat on the prepared surface with bitumen emulsion as per IS: 8887 and approved quality @ 0.225 kg/sqm with the help of spray set fitted on bitumen Container (boiler) after cleaning the surface with brooms or soft brushes and finally dusting with old gunny bags and compressed air to receive bituminous treatment complete as per clause 502 of MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion	652510.00	sqm			
545.00	Providing and applying primer coat over prepared surface of granular base with bitumen emulsion as per IS : 8887 and approved quality @ 0.75 kg/sqm with the help of spray set fitted on bitumen Container (boiler) after cleaning the surface including removing of binding material and other foreign matter with wire brushes and small picks, sweeping with brooms or soft brushes and finally dusting with old gunny bags and compressed air to receive bituminous treatment complete as per clause 502 of MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion.	206095.00	sqm			
546.00	Providing laying and consolidation Semi Dense Bituminous Concrete, as per Design Mix (approved by Engineer), on prepared surface with specified graded crushed aggregates as per table 500- 15 for wearing coarse including loading of material with F.E. loader, hot mixing of stone aggregate, filler and bitumen (including cost of anti-stripping compound wherever required) heating and mixing in in computerised hot mix plant, transporting the mixed material by tippers to paver and laying with paver finisher fitted with electronic sensor control to the required level and grade, compacting by power rollers and vibratory rollers or 150 to 250 KN pneumatic tyred roller with TP = 0.7 Mpa, to achieve the desired density (approximately 2.3 tonne/cum) complete as per clause 508 of MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion but excluding primer/tack coat. 25-30 mm compacted thickness (Grade-2) using Bitumen VG-grade 30 @ 5% (percent by weight of total mix)	16220.00	Cum			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
547.00	Providing and laying open graded premix carpet 20mm thick (compacted), on prepared surface in a single course as wearing course, composed of specified graded crushed stone aggregate as per Table 500-23, premixed with bituminous binder @ 14.60 kg/ 10sqm (including cost of anti-stripping compound wherever required), including loading of material with F.E. loader, hot mixing of stone aggregate and bitumen in computerised hot mix plant, transporting the mixed material by tippers to site and laying manually/ with paver finisher fitted with electronic sensor control to the required level and grade, compacting smooth wheeled roller 8-10 tonne capacity and finishing to required level to achieve the desired density as per clause 511 of MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion but excluding cost of tack coat/ seal coat. With Bitumen VG-grade 30	105000.00	sqm			
548.00	Providing and applying liquid seal coat type "A" comprising of a layer of bituminous binder @ 9.8 kg/ 10 Sqm (including cost of antistripping compound wherever required) followed by a cover of stone chipping @ 0.09 cum/10 sqm of specified grading and rolling with power roller 8-10 tonne complete as per clause 513 of MoRT&H specification including all material, labour, machinery, lighting, guarding and maintenance of diversion. With Bitumen VG-grade 30	105000.00	sqm			
549.00	Providing and laying bituminous macadam in 50/75 mm compacted thickness on prepared surface with specified graded crushed stone aggregates as per Table 500-4, Grading-II for base/ binding course, loading of aggregate with F.E. loader, heating and mixing of stone aggregate and bitumen in computerised hot mix plant, transported to site by tippers, laid over a previously prepared surface manually (in trench)/ with paver finisher fitted with electronic sensing device to the required grade, level and alignment and rolling with power roller and vibratory compactor as per clauses 501.6 and 501.7 to achieve the desired compaction complete as per clause 504 of MoRT&H specification and including all material, labour, machinery, lighting, guarding and maintenance of diversion but excluding cost of primer/ tack coat. With Bitumen VG-grade 30 @ 3.3% (percentage by weight of total mix)	7726.00	Cum			
550.00	Providing and laying in position cement concrete 1:3:6 (1 Cement : 1 graded stone aggregate 20 mm nominal size) in base course complete including all material, labour, machinery, lighting, guarding for road restoration under sewer line and manhole work to complete the task.	43327.00	Cum			
551.00	Providing and laying in position cement concrete of specified grade over prepared base course complete including finishing, curing, all material, labour, machinery, lighting, guarding for road restoration under sewer line and manhole work to complete the task. (M-30 grade, As per design mix)	88591.00	cum			
552.00	Add extra over items of Cement Plaster / Cement Concrete Flooring / Plain or RCC work providing and mixing admixture of synthetic fibre 6 mm / 12 mm @ rate of 125 gm.pack per 50 kg.of Cement or in the ratio of as specified by manufacture specification and direction of the Engineer with all leads and lifts.	22150.00	Per pack 125 gm			
553.00	Providing and laying precast cement concrete M-30 Grade interlocking paving blocks of 100mm thick over 50mm coarse sand bedding (duly compacted) including filling of joints with sand suitable for heavy pedestrian traffic/ light vehicle traffic of pattern as approved by Engineer.	9000.00	sqm			
554.00	Part K: Miscellaneous Items					
555.00	Dismantling of LT line pole (PCC - 8/9 mtr height) single phase/3 phase & 5 wires bracket, top hamper, insulators(pin or disc) earthwire and conductors.	200.00	Each			
556.00	Removal of telephone / Electric poles including excavation and dismantling of foundation concrete and lines under the supervision of concerned department, disposal with all lifts and up to a lead of 1000 metres and stacking the serviceable and unserviceable material separately as per MoRT&H specification clause 202.	200.00	Each			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
557.00	Cutting of trees, including cutting of trunks, branches and removal of stumps, roots, stacking of serviceable material with all lifts and up to a lead of 1000 mtrs and earth filling in the depression/ pit to required compaction as per MoRT&H specification clause 201. (Measurement of girth to be done at height of 1 m above ground level)					
558.00	Girth from 300 mm to 600 mm	20.00	Each			
559.00	Girth from 600 mm to 900 mm	20.00	Each			
560.00	Girth from 900 mm to 1800 mm	20.00	Each			
561.00	Girth from 1800 mm to 2700 mm	20.00	Each			
562.00	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to a lead of 50 metres from road boundary including removal and disposal of top organic soil not exceeding 150 mm in thickness as directed by Engineer.					
563.00	In area of light jungle	1.00	Hectare			
564.00	In area of thorny jungle	1.00	Hectare			
565.00	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 50 metres as directed by Engineer.					
566.00	Cement Concrete Grade M-15 & M-20 and PCC blocks	1212.00	cum			
567.00	Dismantling Brick / Tile work , In cement mortar	270.00	cum			
568.00	Dismantling Stone Masonry /Rubble stone masonry in cement mortar.	2161.00	cum			
569.00	Providing, lowering, laying in trenches, aligning, fixing in position and jointing socketed rubber gasket type ISI marked uPVC pipes of Class III (6 Kg/sqcm) suitable for potable water with rubber ring joints (as per IS 4985-2000) of following outer dia with all accessories (excluding specials) complete including all material, labour, hydraulic testing and commissioning as per Technical Specifications and as per direction of Engineer.					
570.00	90 mm dia	250.00	Rmtr			
571.00	110 mm dia	250.00	Rmtr			
572.00	125 mm dia	250.00	Rmtr			
573.00	140 mm dia	150.00	Rmtr			
574.00	160 mm dia	150.00	Rmtr			
575.00	180 mm dia	150.00	Rmtr			
576.00	200 mm dia	150.00	Rmtr			
577.00	Providing, lowering, laying, aligning, fixing in position and jointing CI D- joint class-10 as per IS specifications complete of the following sizes including all jointing material, cost of all labour, testing and commissioning as per Technical Specifications and as per direction of Engineer.					
578.00	80 mm diameter	200.00	Each			
579.00	100mm diameter	200.00	Each			
580.00	125mm diameter	250.00	Each			
581.00	150mm diameter	200.00	Each			
582.00	200mm diameter	200.00	Each			
583.00	250mm diameter	150.00	Each			
584.00	300mm diameter	50.00	Each			
585.00	Brick masonry work in cement mortar with mechanical mixer with First class bricks (min. 10.5 Mpa) in foundation (at any level) complete as per drawing and technical specification and as per clause 1000 & 1300 of MoRT&H specification including all scaffolding material, labour, machinery but excluding pointing and plastering.					

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
586.00	In cement mortar 1:3 (1 cement : 3 coarse sand)	310.00	cum			
587.00	In cement mortar 1:4 (1 cement : 4 coarse sand)	310.00	cum			
588.00	Random rubble stone masonry work in cement mortar with mechanical mixer in foundation (at any level) complete as per drawing and technical specification and as per clause 1000 and 1400 of MoRT&H specification including all scaffolding material, labour, machinery but excluding pointing and plastering.					
589.00	In cement mortar 1:3 (1 cement : 3 coarse sand)	310.00	cum			
590.00	In cement mortar 1:4 (1 cement : 4 coarse sand)	310.00	cum			
591.00	Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibrator including curing complete as per clause 2100 of MoRT&H specification including all scaffolding, material, labour, machinery.	310.00	cum			
592.00	Coursed rubble masonry (First sort) work in cement mortar 1:3 (1 cement : 3 coarse sand) with mechanical mixer in substructure/ super structure at all levels complete as per clause 1400 and 2200 of MoRT&H specification including all material, labour, scaffolding etc but excluding pointing and plastering.	310.00	cum			
593.00	Plastering with cement mortar (1:3) on Brick/stone work in substructure/ super structure at any height complete as per clause 1312 of MoRT&H specification including all material, labour, scaffolding etc.					
594.00	12 mm plaster on brick work	1500.00	Sqm			
595.00	20 mm plaster on stone work	1500.00	Sqm			
596.00	Providing and laying structural plain/ reinforced cement concrete (design mix) of specified grade in substructure at all levels using concrete mixer and vibrator, including cost of form work, as per drawing and technical specifications complete as per clause 1500, 1700 and 2200 of MoRT&H specification including all material, labour, scaffolding etc.					
597.00	PCC Grade M -20	310.00	cum			
598.00	RCC Grade M -25	310.00	cum			
599.00	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete.40mm thick with 20mm nominal size stone aggregate.	1200.00	Sqm			
600.00	Random rubble masonry with hard stone in foundation and plinth					
601.00	Cement mortar 1:6 (1 cement : 6 coarse sand)	1325.00	cum			
602.00	Cement mortar 1:4 (1 cement : 4 coarse sand)	1100.00	cum			
603.00	Cement plastering including T&P, scaffolding, material and complete labour, including cost of water, curing, racking of joints etc. with 20 mm cement plaster of mix : 1:4 (1 cement : 4 fine/ coarse sand)	4000.00	Sqm			
604.00	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. upto two stories, excluding the cost of centring, shuttering and finishing : 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	700.00	cum			
605.00	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centring, shuttering, finishing and reinforcement - All work upto plinth level : 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20 mm nominal size)	1750.00	cum			
606.00	Reinforcement for R.C.C. work at all levels including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars.	7000.00	Kg			
607.00	Centring and shuttering upto two stories or height upto 7.5 metre above plinth level including strutting, propping etc. and removal of form for :					

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
608.00	Foundations, footings, bases of columns etc for mass concrete	1200.00	Sqm			
609.00	Walls (any thickness) i/c attached pillasters, buttresses, plinth & string course.	400.00	Sqm			
610.00	Suspended floors, roofs, landings, balconies and access platform	500.00	Sqm			
611.00	Brick work with bricks of class designation 75 in foundation and plinth in:					
612.00	Cement mortar 1:4 (1 cement : 4 coarse sand)	180.00	cum			
613.00	Cement Mortar 1:6 (1 cement : 6 coarse sand).	180.00	cum			
614.00	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level :					
615.00	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	140.00	cum			
616.00	1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	190.00	cum			
617.00	1:4:8 (1 Cement : 4 fine/ coarse sand : 8 graded stone aggregate 40 mm nominal size).	490.00	cum			
618.00	Extra for random rubble masonry with hard stone in superstructure above plinth level and upto two stories.	100.00	cum			
619.00	Emptying of septic tank/ soakage well etc, disposing of sludge within a lead of 5km and taking out sewage including refilling with local earth, ramming and compaction in layers, cleaning of site.	2625.00	Each			
620.00	Providing and making connection to the manhole/ road side chamber/ property chamber by cutting hole in wall, making good the same with brick work/ stone masonry work in cement mortar 1:4, plaster in cement mortar 1:3, encasement of pipe at manhole with 75mm thick M15 grade concrete etc complete as directed by Engineer.	100.00	Each			
621.00	Dismantling of C.I. sluice valve in the existing water distribution system including stacking of useful materials within a lead of 50metres.					
622.00	Upto 150mm diameter	231.00	Each			
623.00	Above 150mm diameter	89.00	Each			
624.00	Labour Charges for making connection with proposed pipe line to existing pipeline of AC/ DI/ CI including dewatering etc. complete but excluding the cost of pipes, specials, joints etc as directed by site engineer for following dia. (Earthwork to be measured and paid separately)					
625.00	80-200mm diameter	106.00	Each			
626.00	250-500mm diameter	64.00	Each			
627.00	Labour Charges for making connection with proposed pipe line to existing pipe line of PVC/ HDPE/ GRP including dewatering etc. complete but excluding the cost of pipes, specials, joints etc as directed by site engineer for following dia. (Earthwork to be measured and paid separately)					
628.00	80-200mm diameter	76.00	Each			
629.00	Carriage of Materials by mechanical transport including loading, unloading and stacking of earth for Earthwork excavation quantity					
630.00	Rate for Lead of 1Km	249668.05	cum			
631.00	Rate for Lead of 2Km	99867.22	cum			
632.00	General Obligations					
633.00	Provide and maintain 4 wheeler (cars) including driver, comprehensive insurance, fuel, oil and lubricants, for average running of 2000 kms per month. Vehicle should be newer than of model 2012.	108.00	vehicle months			
634.00	Part L: Environmental Monitoring Items					
635.00	Collection and analysis of samples for					
636.00	Air Ambient Quality (SPM 2.5 & 10)	30.00	Nos.			
637.00	Noise Level	30.00	Nos.			
638.00	Ground Water Quality	12.00	Nos.			
639.00	Surface Water Quality	12.00	Nos.			
640.00	Soil Quality	30.00	Nos.			
641.00	Sprinkling of water for dust Suppression	60000.00	KL			
642.00	Part M- STP & SPS					

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
643.00	15 MLD STP					
644.00	Design, Drawing, construction, Supply, installation, testing & commissioning of Sewage Treatment Plant capacity 15 MLD based on SBR Technology on Turnkey basis including all civil, mechanical, electrical, instrumentation etc and all relevant work to complete the work as per scope of work and specifications.	1.00	Lot			
645.00	SPS					
646.00	Design, Drawing, construction, Supply, installation, testing & commissioning of 1 MLD Intermediate Sewage Pumping Station including all civil, mechanical, electrical, instrumentation etc and all relevant work to complete the work as per scope of work and specifications.	1.00	Lot			
647.00	Part N- Procurement of Sewer Jetting Machine					
648.00	Supply and Delivery of vehicle mounted sewer jetting machines of 500 litre capacity .	1.00	Nos.			
649.00	Supply and Delivery of vehicle mounted sewer suction cum jetting machines of 4000 litre capacity .	1.00	Nos.			
650.00	Part O- Operation and Maintenance					
651.00	Operation, maintenance and management of sewerage collection, Intermediate sewage Pumping Station (1 MLD) and treatment system in commissioned areas from consumer end upto the STP location (including STP) and provide customer services as per scope of work, Section 6: Employer's Requirement from initial takeover date to contract completion date	56700.00	ML			
652.00	Raising/ lowering of manholes up to 150 mm depth.	5000.00	Nos.			
653.00	Supplying, fixing i/c replacement of existing Manhole covers in case of Theft over a period of operation services	1000.00	Nos.			
654.00	Providing at site, lowering & laying in trenches, aligning & jointing of PVC-U pipes (SN 8) as per IS 15328 (amended up to date) and as per specifications with rubber rings with socket and spigot joint , (EPDM/SBR) for all depths for pipe length as per drawing and specification including hydraulic field testing and commissioning etc complete as directed by Engineer. Note : The item includes earthwork in all types of soils, rocks etc., dismantling of all types of pavement and reinstatement of road to original condition					
655.00	110 mm Nominal Dia	20000.00	m			
656.00	160 mm Nominal Dia	5000.00	m			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
657.00	<p>Providing, fixing and constructing of pre-cast RCC M-40 grade circular Road Side Inspection Chamber (using sulphate resistant cement) with internal dia 0.45m and up to 0.90m depth having pre-cast RCC M-40 grade cylindrical piece 0.90m total height, 100mm wall thickness with inbuilt manhole cover frame on top including concreting PCC M-15 grade for 100mm thick, 0.70m dia foundation, PCC M-20 for benching and channel portion and up to top level of sewer pipe etc complete with curing compaction and form work, supplying and fixing with circular 450mm dia precast SFRC MD manhole frame and cover complete in all respect including shuttering, reinforcement steel testing for water tightness including opening for 2 Nos. 110 OD and plugging the same etc complete in all respect (including the cost of manhole cover and frame) as per specification and the direction of the Engineer</p> <p>(Note:- The item includes earthwork in all types of soils, rocks etc., dismantling of all types of pavement and reinstatement of road to original condition)</p>	5000.00	Each			
658.00	<p>Operation, maintenance and management of water supply system from ESRs to consumer end and supply water to connected consumers and providing services as per scope of work from initial takeover date to contract completion period (months average) for functional consumer connection</p>	6840000.00	consumer month			
659.00	<p>Making 15 mm house service connection from water supply distribution pipe line upto water meter chamber, with HDPE (Class-PE 80) composite pipes of 20 mm Diameter below the ground & 15 mm GI pipe class B above the ground including earthwork in all types of soils, rocks etc., dismantling of all types of pavement & restoration of road to original condition and Supply, fixing, testing & commissioning of Multi jet magnetic type water meter of with end coupling as per relevant supply and fixing of ferrules, Electrofusion tapping saddle for PE pipes/ clamps for DI/ welded for GI pipes, union, end plug, compression fittings with METER BOX of water meter with Weather resistant PE, Lid fixing & locking: press fitted and locked with built-in or external lock. including all material, labour, testing and commissioning complete as directed by the Engineer.</p>	4600.00	Each			
660.00	<p>Making 25 mm house service connection from water supply distribution pipe line upto water meter chamber, with HDPE (Class-PE 80) composite pipes of 32 mm Diameter below the ground & 25 mm GI pipe class B above the ground including earthwork in all types of soils, rocks etc., dismantling of all types of pavement & restoration of road to original condition and Supply, fixing, testing and commissioning of Multi jet magnetic type water meter of with end coupling as per relevant supply and fixing of ferrules, Electrofusion tapping saddle for PE pipes/ clamps for DI/ welded for GI pipes, union, end plug, compression fittings with METER BOX of water meter with Weather resistant PE, Lid fixing & locking: press fitted and locked with built-in or external lock. including all material, labour, testing and commissioning complete as directed by the Engineer.</p>	360.00	Each			

Sl. No.	Item Description	Qty	Unit	Unit Price	Currency Type (INR / USD / EURO / AUD / GBP / EGP / JPY)	Total Amount
1	2	3	4	5	6	7
661.00	Making 50 mm house service connection from water supply distribution pipe line upto water meter chamber, with HDPE (Class-PE 80) composite pipes of 63 mm Diameter below the ground & 50 mm diameter GI pipe class B above the ground including earthwork in all types of soils, rocks etc., dismantling of all types of pavement & restoration of road to original condition and Supply, fixing, testing and commissioning of Multi jet magnetic type water meter of with end coupling as per relevant supply and fixing of ferrules, Electrofusion tapping saddle for PE pipes/ clamps for DI/ welded for GI pipes, union, end plug, compression fittings with METER BOX of water meter with Weather resistant PE, Lid fixing & locking: press fitted and locked with built-in or external lock. including all material, labour, testing and commissioning complete as directed by the Engineer.	100.00	Each			
662.00	Making 75 mm house service connection from water supply distribution pipe line upto water meter chamber, with HDPE (Class-PE 80) composite pipes of 90 mm Diameter below the ground & 80 mm diameter GI pipe class B above the ground including earthwork in all types of soils, rocks etc., dismantling of all types of pavement & restoration of road to original condition and Supply, fixing, testing and commissioning of Multi jet magnetic type water meter of with end coupling as per relevant supply and fixing of ferrules, Electrofusion tapping saddle for PE pipes/ clamps for DI/ welded for GI pipes, union, end plug, compression fittings with METER BOX of water meter with Weather resistant PE, Lid fixing & locking: press fitted and locked with built-in or external lock. including all material, labour, testing and commissioning complete as directed by the Engineer.	40.00	Each			
663.00	Replacement of domestic water meter (Water meter replacement will be considered after 7 years from date of installation)	50000.00	Nos.			
664.00	Water supply through own water tankers to meet additional needs as directed by the Employer	10000.00	KL			
***Total in Figures						
***Total in Words						
				Rupees only		