

PROPOSED 2-LANE RAILWAY OVER BRIDGE IN LIEU OF LC. NO. 48A BETWEEN RLY KM. 629/3 TO 629/4, NEAR DHRANGADHRA RLY. STATION, DHRANGADHRA.

SCHEDULE-B

RAILWAY PORTION

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
1	Excavation for foundation in sand , gravel, clay soft soils and murrum etc. including shoring, strutting dewatering as necessary and disposing of the excavated stuff as directed.(A) Depth upto 3.0 M. and lead upto 100m for 10 Cum	Cum	270	486.77	1,31,427.90
2	Excavation in large boulders and soft rock by welding including shoring, strutting and dewatering as necessary and disposing of the excavated stuff as directed.	Cum	230	682.44	1,56,961.20
3	Providing and filling in foundation with ordinary Cement concrete M-15 mix and providing necessary vertical pin headers including formwork, vibrating, ramming and curing complete.	Cum	30	3596.68	1,07,900.40
4	Providing and Casting in situ Controlled Cement Concrete M35 for R.C.C. Raft footing and cutt-off walls including necessary shuttering laying, vibrating, ramming and curing complete.	Cum	200	4763.60	9,52,720.00
5	Providing and placing in position FE 550D (With CRS) TMT bar reinforcement for following items including cutting bending hooking and tying complete as per detailed drawing.For RCC Raft & Open foundation.	M.T.	21	76247.53	16,01,198.13
6	Providing and filling trenches of Labour charges - Excavator in rocky strata with ordinary cement concrete M-15.	Cum	132	3540.15	4,67,299.80
7	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering.	Cum	160	130.39	20,862.40
8	Providing and casting in situ controlled cement concrete M-35 for R.C.C. return as per drawings including centering shuttering, scaffolding where necessary, laying vibrating, curing and finishing complete. (1) Piers (2) Abutment (3) RCC return (A) Height Upto 5.0 M.	Cum	83	5335.18	4,42,819.94
	(B) Height 5.0M to 10.0M	Cum	83	5647.23	4,68,720.09
	(C) Height 10.0M to 15.0M	Cum	21	6425.03	1,34,925.63
9	Providing and laying in position FE 550D (With CRS) TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following. (A) Piers	M.T.	26	76247.53	19,82,435.78

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
10	Providing and laying in situ machine mixed controlled M-35 grade cement concrete for RCC caps , side walls, tie walls etc. including M:40 pedestals over piers and abutments including necessary scaffolding formwork, centering, transporting, placing, compacting by mechanical vibrators, finishing and curing and casting, finishing at any height or depth as per drawing etc. complete excluding reinforcement, as directed by Engineer and as per specification.	Cum	190	5414.11	10,28,680.90
	Pedestals in M:40	Cum	10	5387.67	53,876.70
	Seismic Restrainer in M:40	Cum	10	5387.67	53,876.70
11	Providing & fixing in position (Thermo mechanically treated bars) FE 550D (With CRS) TMT bar steel bars of various diameters for all RCC works in Foundations, Pier, Abutment wall, box wall, Abt. cap, Dirt wall, side wall, Retaining wall, Pedestals as per detailed design & drawings and schedule including cutting, bending, hooking the bars, binding with 18 SWG GI wires and supporting as required with all lifts and leads etc. complete including cost of all labour, materials, tools, plants, equipments etc. all complete as directed by Engineer and as per specifications.	M.T.	38	76247.53	28,97,406.14
12	Providing and applying anti carbonation, anti fading, mold resistant, heat insulating, and 100% acrylic breathable decorative external waterproof coating of approved shade having Viscosity @ Room Temperature by Ford cup No. B-4 (dilute 2 parts of product with 1 part of water) 18 to 30 sec. pH of 7.00 to 10.00 and Sp. Gravity @ Room Temperature 1.30+0.1, tested for carbon dioxide diffusion resistance properties for coating materials and coating systems for open atmosphere surface of substructure as well as superstructure as per DIN EN 1062-6 (2002-2010) by a NBA Grade "A" accredited institution.	Sqm	580	115.32	66,885.60
13	Design, supply, fitting and fixing in position true to line and level POT-PTFE bearing of 250 MT Capacity, consisting of a metal piston supported by a disc or un reinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel / fabricated structural steel, metal and elastomer elements complete as per IS:2062, IS:1030, AISI:304, AISI:316, IS:6911, BS:3784, IS:3400, IS:226, BS-5400, Bridge Code and as per approved drawing and Technical Specifications. The design of the bearings shall be submitted by the manufacturers / contractor and got approved from Railway before fixing. Test report after inspection of the bearings shall be submitted and got approved before the materials are lifted from the manufacturer premises.				
	POT-cum -PTFE Bearing (Free end)	M.T.	750	319.16	2,39,370.00
	POT Bearing-Fixed Type	M.T.	500	410.06	2,05,030.00

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
	POT-cum -PTFE Guided (L)Bearing	M.T.	500	540.35	2,70,175.00
	POT-cum -PTFE Guided (T)Bearing	M.T.	750	508.03	3,81,022.50
14	Providing and fixing mild steel dowel bars of minimum 32 mm dia. For anchoring by drilling holes in foundation strata including necessary bending, hooking of dowel bars and grouting the holes complete as per detailed drawing and as directed.	Rmt	60	448.27	26,896.20
15	Providing and Casting in situ controlled cement concrete M 40 for R.C.C. Deck Slab including centering, scaffolding , curing and finishing complete.	Cum	133	7481.09	9,94,984.97
16	Supplying, fabrication, assembling of all types of steel girders of specified spans with structural steel conforming to Quality "B0" Grade Designation E250 conforming to IS:2062, erection / slewing / end launching of steel girders with cranes or any other approved launching methods as per site conditions (not requiring traffic block) on substructure including provision of trolley refuges etc., complete as per approved QAP and drawings conforming to IRS-B1-2001 and other relevant codes and specifications.				
16 (Cont)	Note: 1. Detailed fabrication and erection drawings & launching methodology will be prepared by the contractor and got approved from Railway. 2. The rate is all inclusive including launching in position, complete in all respect except cost of (i) Painting / Metalising; (ii) Bearings & (iii) HSFG bolts which shall be paid extra under relevant item. 3. The payment shall be made on the theoretical weight of main components and gusset plates only. 4. Payment Schedule: (i) Receipt of material at site: 40% (ii) Fabrication of girders: 20% (iii) Erection/Launching: 20% (iv) Completion in all respects: 20%				
	Plate Girder/Semi Through Girder/Composite Girder (Steel Work) (Composite steel girder of span length above 36.0m)	M.T.	280	133994.88	3,75,18,566.40
17	Extra for using steel conforming to Grade Designation E350 instead of Grade Designation E250 of Quality "B0" as per IS: 2062	M.T.	280	4780.94	13,38,663.20
18	Supplying and fixing HSFG bolts of any dia and any length with suitable nuts including DTI washers conforming to IRS-B1-2001 for bridges and steel structures with contractors labour, tools and plants and lead and lift etc., complete.	kg	5600	313.97	17,58,232.00

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
19	Metallizing of steel work of girders with sprayed aluminium after surface preparation by Sand/grit blasting, followed by one coat of etch primer (IS:5666) & one coat of Zinc Chrome primer (IS:104) and two coats of aluminium paint (IS:2339) with all labour, T&P and material as a complete job duly conforming to all relevant specifications and process given under Clause 39 of IRS-B1-2001. Note: Nominal Thickness of sprayed Aluminium coating shall be 150 microns. DFT of Zinc chrome primer shall be 25-30 microns and DFT of each coat of Aluminium paint shall be 12-14 microns.	Sqm	2400	650.56	15,61,344.00
20	Providing and placing in position FE 550D (With CRS) TMT. Bar reinforcement including, cutting, bending hooking and tying complete as per detailed drawings.(I) Solid Slab.(II) Deck Slab.	M.T.	18	75631.86	13,61,373.48
21	Providing and casting RCC in M-40 controlled concrete Crash Barriers as per detailed drawings including necessary scaffolding, centering, formwork, mixing in machine, transporting, placing, compacting, finishing, curing, etc. complete including providing and fixing of inserts if any with all leads and lifts as per drawing & specification and as directed by Engineer, excluding reinforcement.	Cum	35	5110.61	1,78,871.35
22	Providing and laying precast RCC footpath slab in controlled cement concrete of M:20 grade (7 cm thickness including necessary reinf.) and providing and setting cement chequered tiles in C.M. 1:5 as per drawing including necessary formwork, cutting and finishing complete.	Sqm	70	1083.05	75,813.50
23	Providing and fixing post and pipe railing as per detailed drawing including 3 coats of painting to steel works complete.	Rmt	90	1202.39	1,08,215.10
24	Providing and fixing in position (Thermo mechanically Treted bars) FE 550D (With CRS) TMT bar reinforcing bars of various diameters for the Crash Barrier as per detailed designs and drawings and schedule including cutting, bending, hooking the bars, binding with 18 SWG GI wires with cost of all labour, materials, tools, plants, equipments, supporting as required with all lifts and leads etc. all complete as per specification and as directed by Engineer.	M.T.	9	75631.86	6,80,686.74
25	Providing and laying Double Walled corrugated Pipes (DWC) of Polyethylene (conforming to IS:14930-II) of 50mm O.D. / 38mm I.D. with fittings and necessary connecting accessories of same material at required depth for laying cable below footpath slab etc. complete as per specification and as directed by Engineer.	Rmt	172	62.09	10,679.48

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
26	Providing and fixing 100 mm dia. G.I. Drainage spouts , as per MOST Drg. No SD/303 including grating with suitable clean out fixtures including all leads and lifts etc. complete as per specification, design & drawings and as directed by Engineer.	Nos	18	536.03	9,648.54
27	Providing, laying and jointing in true line and level 110 diametre U.P.V.C (Type B) conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 110 mm diametre x 149 mm length x 145 mm heigh at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.(For Downtake / longitudinal runner pipe)	Rmt	140	835.15	1,16,921.00
28	Painting Two Coats on New Concrete Surfaces (Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces) - For inner face of crash barrier	Sqm	110	81.81	8,999.10
29	Providing and applying one coat Epoxy Phenolic primer of DFT 50 micron and two coats of Epoxy Phenolic coating of DFT 100 microns each or any other equivalent epoxy coating system to all concrete surfaces exposed to atmosphere in substructure including cost of material, labour, transportation, scaffolding and preparing the surfaces by cleaning, washing, brushing, sand / grit blasting etc. complete and as directed by Engineer and as per specification. (Paint shall be got approved from Engineer and tested from approved laboratory).	Sqm	660	115.32	76,111.20
30	Supplying, Fabricating and fixing access ladders, inspection platforms on bridges with structural steel conforming to IS:2062 including welding / bolting, priming painting with one coat of ready mixed paint of Zinc Chromate (IS:104) with DFT of 25-30 microns followed by one coat of Zinc Chrome Red Oxide (IS:2074) with DFT of 25 microns with all material, labour, T&P as a complete job as directed by Engineer-in Charge.	M.T.	50	98201.49	49,10,074.50
31	Providing and casting in situ controlled cement concrete M-40 for average 100 mm thick wearing coat laid as directed dincluding tamping, vibrating, finishing, curing and fillingin joints with bitumen complete.	Cum	50	5524.01	2,76,200.50
32	Providing and fixing in position FE 550D TMT (with CRS) bar reinforcement including cutting, bending and tying complete as per detailed drawings. (A) R.C.C. Wearing coat . (upto 10 ton)	M.T.	5	75631.86	3,78,159.30

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
33	Road marking with hot applied thermoplastic paints with reflectorising glass beads on bitumin surface providing and laying a hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is excluding of surface applied glass beads as per IRC: 35-2015. The finished surface to be leveled, uniform and free from streaks and holes. Zebra patta/bump patta lane/centre line/edge line/cut patta. The white colour marking should provide liminance coefficient on cemented road shall be 130 mcd / m ² / lux and ashphalt roads shall be minimum 100 130 mcd / m ² / lux during the service life during the day time. The marking should meet the performance criteria for night time reflectivity, wet reflectivity and skid resistance as mentioned in the section - 15 of IRC:35-2015.	Sqm	20	367.72	7,354.40
34	Cat Eye / Road Stud / RPM: Supplying of Molded Twin Shanks Raised Pavement Markers made of polycarbonate and ABS moulded body and reflective panels with Micro prismatic lens (No Glass bead lens) capable of providing total internal reflection of the light entering the lens face and shall support a load of 13635 kgs. tested in accordance to ASTM D 4280 Type H and complying to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97 – DO III Dt 11.06. 1997. The height, width and length shall not exceed 20 mm, 130 mm and 130 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 +/- 5 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 +/- 2 mm and height not less than 30 +/- 2 mm) from the body is to be a minimum value of 500 Kgf. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and The color of the marker should be as per the IRC 35-2015 and as directed by Engineer-in-charge.	No	22	326.23	7,177.06
				Total Rs.	6,30,68,566.83
APPROACH PORTION					
35	Clearing and grubbing road land including uprooting rank vegetation grass bushes,shrubs,sapling and trees girth up to 300 mm removal of stumps of trees cut earlier and disposal of unserviceable materials (C) By mechanical means in area of light jungle.	Hectare	2.40	28393.04	68,143.30
36	Demarkation of road alignment including marking out road line by providing and fixing wooden pegs or steel rod of required size at every 25 M to 50 M including excavating trenches ion both sides of 0.30 m x 0.30m including supplying of labours and all materials for every work etc complete.	Km	0.9	2706.5	2,435.85
37	Dismantling the existing structure including removing and stacking the dismantalled materials as and where directed - RCC work & Rubble Masonary				
	(A) RCC work	Cum	200	886.05	1,77,210.00

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
	(B) Rubble / brick masonry	Cum	200	389.74	77,948.00
	(C) Structural steel work	MT	10	1955.71	19,557.10
38	Dismantling of flexible pavements and disposal of dismantled materials with all leads and lifts ,stacking serviceable and unserviceable materials. By Mechanical means.	Cum	1190	403.75	4,80,462.50
39	Dismantling of Cement Concrete Pavement (Dismantling of cement concrete pavement by mechanical means using 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)	Cum	800	744.37	5,95,496.00
40	Providing and fixing pre-cast concrete kerb stone of gray cement based concrete block 30 cm length, 30 cm height and 15 cm thick of M250 grade concrete as per approved design & including excavation for fixing in proper line and level, filling the joint with C:M 1:3 (1 cement : 3 fine sand) etc complete. (In underspace portion & beside drain)	Rmt	2755	374.92	10,32,904.60
41	Excavation for foundation in sand , gravel, clay soft soils and murrum etc. including shoring, strutting dewatering as necessary and disposing of the excavated stuff as directed.(A) Depth upto 3.0 M. and lead upto 100m for 10 Cum	Cum	1444	486.77	7,02,895.88
42	Excavation in large boulders and soft rock by welding including shoring, strutting and dewatering as necessary and disposing of the excavated stuff as directed.	Cum	1588	682.44	10,83,714.72
43	Providing and filling in foundation with ordinary Cement concrete M-15 mix and providing necessary vertical pin headers including formwork, vibrating, ramming and curing complete.	Cum	148	3596.68	5,32,308.64
44	Providing and Casting in situ Controlled Cement Concrete M35 for R.C.C. Raft footing and cutt-off walls including necessary shuttering laying, vibrating, ramming and curing complete.	Cum	1117	4763.6	53,20,941.20
45	Providing and placing in position FE 550D (With CRS) TMT bar reinforcement for following items including cutting bending hooking and tying complete as per detailed drawing.For RCC Raft & Open foundation.	M.T.	140	76247.53	1,06,74,654.20
46	Providing and filling trenches of Labour charges - Excavator in rocky strata with ordinary cement concrete M-15.	Cum	780	3540.15	27,61,317.00

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
47	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering.	Cum	1340	130.39	1,74,722.60
48	Carting of excavated material such as murrum, earth, kapachi, gravel, brickbats, kankar, debris, sand, dismantled material, including loading, unloading, stacking etc. complete at non objectional place as directed by engineer in charge.				
	Lead up to 3 Km	Cum	6130	43.4	2,66,042.00
	Additional rate for lead above 3 and upto 5 km	Cum	1500	59.3	88,950.00
	Additional rate for lead above 5 and upto 10 km	Cum	1500	88.84	1,33,260.00
49	Providing and casting in situ controlled cement concrete M-35 for R.C.C. return as per drawings including centering shuttering, scaffolding where necessary, laying vibrating, curing and finishing complete. (1) Piers (2) Abutment (A) Height Upto 5.0 M.	Cum	333	5335.18	17,76,614.94
	(B) Height 5.0M to 10.0M	Cum	82	5647.23	4,63,072.86
50	Providing and laying in position FE 550D (With CRS) TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following. (A) Piers (B) Abutments	M.T.	75	76247.53	57,18,564.75
51	Providing and laying - Fitter Media 600mm thick directed at the back of abutments as per detailed specifications.	Sqm	80	1180.34	94,427.20
52	Providing and filling sand behind abutments and between returns in layers as directed by Engineer In-charge.	Cum	337	490.47	1,65,288.39
53	Providing & laying weep hole in Abutments, and returns by using A.C. pipe of 100 mm including laying in proper grade and jointing the completed as per detailed specification.	Each	80	53.45	4,276.00
54	Supplying and laying of bi-axial extruded high modulus polypropylene geogrid having minimum layer coefficient ratio as 1.3, junction efficiency not less than 90% and with 38 mm x 38 mm mesh opening. The roll size shall be 50.0 x 3.95 m, at easily accessible location including top and bottom, with all leads and lifts, manpower and machinery, materials, labour etc. complete and as directed by Engineer - in - charge.	Sqm	1420	151.50	2,15,130.00
55	Providing and laying in situ machine mixed controlled M-35 grade cement concrete for RCC caps, side walls, tie walls etc. including M:40 pedestals over piers and abutments including necessary scaffolding formwork, centering, transporting, placing, compacting by mechanical vibrators, finishing and curing and casting, finishing at any height or depth as per drawing etc. complete excluding reinforcement, as directed by Engineer and as per specification.	Cum	405	5308.38	21,49,893.90
	Pedestal in M40 grade conc.	Cum	40	5387.67	2,15,506.80
	Seismic Restrainer in M40 grade conc.	Cum	70	5387.67	3,77,136.90

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
56	Providing and laying in position FE 550D (With CRS) TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed for the following. (A) Abutment cap & Dirt wall. (B) Pier Cap.	M.T.	106	76247.53	80,82,238.18
57	Providing and applying anti carbonation, anti fading, mold resistant, heat insulating, and 100% acrylic breathable decorative external waterproof coating of approved shade having Viscosity @ Room Temperature by Ford cup No. B-4 (dilute 2 parts of product with 1 part of water) 18 to 30 sec. pH of 7.00 to 10.00 and Sp. Gravity @ Room Temperature 1.30+0.1, tested for carbon dioxide diffusion resistance properties for coating materials and coating systems for open atmosphere surface of substructure as well as superstructure as per DIN EN 1062-6 (2002-2010) by a NBA Grade "A" accredited institution.	Sqm	2300	115.32	2,65,236.00
58	Art painting work over various components of ROB / FOB / Underpass with three coat water coat putty of approved brand after duly rubbing the surface to make the surface even and smooth. The work includes one coat of exterior primer coat of approved brand and three or more coat of exterior plastic emulsion paint of approved brand over the prepared surface. Over this art painting work to be done as per direction and design pattern approved by Engineer-in-charge. The work includes the cost centering, shuttering, scaffolding and clearing the site properly after completion of work. The work also includes the cost of all material, manpower, stencils etc. required for art painting. (A) Pier / Abutment & Pier Cap / Abutment Cap	Sqm	1640	875.09	14,35,147.60
59	Providing and fixing in position fully moulded restrained elastometric Bearings as per detailed drawings.	CuCm	2448000	0.9	22,03,200.00
60	Providing and fixing mild steel dowel bars of minimum 32 mm dia. For anchoring by drilling holes in foundation strata including necessary bending, hooking of dowel bars and grouting the holes complete as per detailed drawing and as directed.	Rmt	274	448.27	1,22,825.98
61	Providing and casting in-situ or precast controlled cement concrete M 50 for prestressed concrete work in super structure including centering, shuttering, curing, scaffolding ramming, vibrating, finishing, launching or shifting complete. (II) Deck Slab. (III) Main Girders. (IV) Diaphragm or cross girder.	Cum	3116	8564.53	2,66,87,075.48
62	Providing and placing in position FE 550D (With CRS) TMT. Bar reinforcement including, cutting, bending hooking and tying complete as per detailed drawings.(I) Solid Slab. (II) Deck Slab.	M.T.	164	75631.86	1,24,03,625.04
63	Providing and placing in position FE 550D (With CRS) TMT Bar reinforcement including, cutting, bending hooking and tying complete as per detailed drawings.(I) Main Girders. (II) Diaphragm or cross girder.	M.T.	258	77010.48	1,98,68,703.84

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
64	Providing and fixing in position to exact profile High tensile steel wires 12.7/15.2mm dia of required ultimate strength conforming to low Relaxation Prestressing steel strands including bending, cutting, tying providing necessary standards as per IS 14268 and anchorages, sheathing (HDPE), stressing, grouting, ducts as per detailed drawing including necessary plant and machinery complete.	M.T.	119	72402.66	86,15,916.54
65	Providing and carrying out load test on bridge deck with simulated loading including provision, placing and removal of loading, supplying, fixing and removing deflection measuring instruments etc. complete with platforms for fixing the instruments etc. complete as per the details supplied and specification and as directed by Engineer and including submission of required results in triplicate after satisfactory completion of the load test.	M.T.	200	169.92	33,984.00
66	Providing and applying anti carbonation, anti fading, mold resistant, heat insulating, and 100% acrylic breathable decorative external waterproof coating of approved shade having Viscosity @ Room Temperature by Ford cup No. B-4 (dilute 2 parts of product with 1 part of water) 18 to 30 sec. pH of 7.00 to 10.00 and Sp. Gravity @ Room Temperature 1.30+0.1, tested for carbon dioxide diffusion resistance properties for coating materials and coating systems for open atmosphere surface of substructure as well as superstructure as per DIN EN 1062-6 (2002-2010) by a NBA Grade "A" accredited institution.	Sqm	14590	115.32	16,82,518.80
67	Art painting work over various components of ROB / FOB / Underpass with three coat water coat putty of approved brand after duly rubbing the surface to make the surface even and smooth. The work includes one coat of exterior primer coat of approved brand and three or more coat of exterior plastic emulsion paint of approved brand over the prepared surface. Over this art painting work to be done as per direction and design pattern approved by Engineer-in-charge. The work includes the cost centering, shuttering, scaffolding and clearing the site properly after completion of work. The work also includes the cost of all material, manpower, stencils etc. required for art painting. (A) Outer Face of Crash Barrier	Sqm	1380	875.09	12,07,624.20
68	Providing and casting RCC in M-40 controlled concrete Crash Barriers as per detailed drawings including necessary scaffolding, centering, formwork, mixing in machine, transporting, placing, compacting, finishing, curing, etc. complete including providing and fixing of inserts if any with all leads and lifts as per drawing & specification and as directed by Engineer, excluding reinforcement.	Cum	410.0	5110.61	20,95,350.10

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
69	Providing and fixing RCC M:25 architectural pylons at end of approach structures including all materials, labour, reinforcement laying, ramming, curing etc. complete as per detailed working drawing.	Cum	10	4793.43	47,934.30
70	Providing and fixing marble slab including engraving and painting complete. (i) Size 75cm x 60cm x 4cm.	Nos	2	986.27	1,972.54
71	Providing and fixing in position FE 550D (With CRS) TMT bar reinforcement including cutting, bending and tying complete as per detailed drawings.(A) Crash Barrier, (B) Architectural pylons	M.T.	104	75631.86	78,65,713.44
72	Providing and laying Double Walled corrugated Pipes (DWC) of Polyethylene (conforming to IS:14930-II) of 50mm O.D. / 38mm I.D. with fittings and necessary connecting accessories of same material at required depth for laying cable below footpath slab etc. complete as per specification and as directed by Engineer.	Rmt	2040	62.09	1,26,663.60
73	Providing, laying and jointing in true line and level 110 diametre U.P.V.C (Type B) conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 110 mm diametre x 149 mm length x 145 mm heigh at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.(For Downtake / longitudinal runner pipe)	Rmt	1224	835.15	10,22,223.60
74	Providing and fixing 100 mm dia. G.I. Drainage spouts , as per MOST Drg. No. SD/303 including grating with suitable clean out fixtures including all leads and lifts etc. complete as per specification, design & drawings and as directed by Engineer.	Nos	210	536.03	1,12,566.30
75	Strip seal expansion joint (Providing and laying of a strip seal expansion joint catering to maximum horizontal movement up to 70 mm,complete as per approved drawings and standerd specifications to be installed by the manufacturer/supplier or their authorised representative ensuming compliance to the manufacturer's instructions for installation.)	Rmt	86	6358.7	5,46,848.20
76	Painting Two Coats on New Concrete Surfaces (Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces) - For inner face of crash barrier	Sqm	1280	81.81	1,04,716.80
77	Providing and casting in situ controlled cement concrete M-40 for average 100 mm thick wearing coat laid as directed dincluding tamping, vibrating, finishing, curing and fillingin joints with bitumen complete.	Cum	440	5524.01	24,30,564.40

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
78	Providing and fixing in position FE 550D TMT (with CRS) bar reinforcement including cutting, bending and tying complete as per detailed drawings. (A) R.C.C. Wearing coat . (upto 10 ton)	M.T.	44	75631.86	33,27,801.84
79	Road marking with hot applied thermoplastic paints with reflectorizing glass beads on bitumen surface providing and laying a hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is excluding of surface applied glass beads as per IRC: 35-2015. The finished surface to be leveled, uniform and free from streaks and holes. Zebra patta/bump patta lane/center line/edge line/cut patta. The white color marking should provide luminance coefficient on cemented road shall be 130 mcd / m ² / lux and asphalt roads shall be minimum 100 mcd / m ² / lux during the service life during the day time. The marking should meet the performance criteria for night time reflectivity, wet reflectivity and skid resistance as mentioned in the section - 15 of IRC:35-2015. Warranty for retro reflectivity shall be two years.	Sqm	230	367.72	84,575.60
80	Cat Eye / Road Stud / RPM: Supplying of Molded Twin Shanks Raised Pavement Markers made of polycarbonate and ABS moulded body and reflective panels with Micro prismatic lens (No Glass bead lens) capable of providing total internal reflection of the light entering the lens face and shall support a load of 13635 kgs. tested in accordance to ASTM D 4280 Type H and complying to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97 – DO III Dt 11.06. 1997. The height, width and length shall not exceed 20 mm, 130 mm and 130 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 +/- 5 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 +/- 2 mm and height not less than 30 +/- 2 mm) from the body is to be a minimum value of 500 Kgf. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and The color of the marker should be as per the IRC 35-2015 and as directed by Engineer-in-charge.	Nos.	260	326.23	84,819.80
81	Providing and fixing the Continuity arrangement in deck slab as per the detailed drawing with fixtures, components, filler etc. complete as directed by Engineer in charge.	Rmt	76	8237.00	6,26,012.00
82	Excavation for foundation in sand , gravel, clay soft soils and murrum etc. including shoring, strutting dewatering as necessary and disposing of the excavated stuff as directed.(A) Depth upto 3.0 M. and lead upto 100m for 10 Cum	Cum	3758	486.77	18,29,281.66

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
83	Excavation in large boulders and soft rock by welding including shoring, strutting and dewatering as necessary and disposing of the excavated stuff as directed.	Cum	2890	682.44	19,72,251.60
84	Providing and filling in foundation with ordinary Cement concrete M-15 mix and providing necessary vertical pin headers including formwork, vibrating, ramming and curing complete.	Cum	455	3596.68	16,36,489.40
85	Providing and Casting in situ Controlled Cement Concrete M35 for R.C.C. Raft footing and cutt-off walls including necessary shuttering laying, vibrating, ramming and curing complete.	Cum	1049	4763.6	49,97,016.40
86	Providing and placing in position FE 550D (With CRS) TMT bar reinforcement for following items including cutting bending hooking and tying complete as per detailed drawing.For RCC Raft & Open foundation.	M.T.	105	76247.53	80,05,990.65
87	Providing and casting in situ controlled cement concrete M-35 for R.C.C. return as per drawings including centering shuttering, scaffolding where necessary, laying vibrating, curing and finishing complete. (1) RCC Retaining wall (A) Height Upto 5.0 M.	Cum	1074	5335.18	57,29,983.32
	(B) Height 5.0M to 10.0M	Cum	123	5647.23	6,94,609.29
88	Providing and laying in position FE 550D (With CRS) TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following. (A) RCC Retaining wall	M.T.	120	76247.53	91,49,703.60
89	Providing and applying anti carbonation, anti fading, mold resistant, heat insulating, and 100% acrylic breathable decorative external waterproof coating of approved shade having Viscosity @ Room Temperature by Ford cup No. B-4 (dilute 2 parts of product with I part of water) 18 to 30 sec. pH of 7.00 to 10.00 and Sp. Gravity @ Room Temperature 1.30+0.1, tested for carbon dioxide diffusion resistance properties for coating materials and coating systems for open atmosphere surface of substructure as well as superstructure as per DIN EN 1062-6 (2002-2010) by a NBA Grade "A" accredited institution.	Sqm	3180	115.32	3,66,717.60

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
90	Art painting work over various components of ROB / FOB / Underpass with three coat water coat putty of approved brand after duly rubbing the surface to make the surface even and smooth. The work includes one coat of exterior primer coat of approved brand and three or more coat of exterior plastic emulsion paint of approved brand over the prepared surface. Over this art painting work to be done as per direction and design pattern approved by Engineer-incharge. The work includes the cost centering, shuttering, scaffolding and clearing the site properly after completion of work. The work also includes the cost of all material, manpower, stencils etc. required for art painting. (A) Outer Face of Crash Barrier	Sqm	3180	875.09	27,82,786.20
91	Providing and laying - Fitter Media 600mm thick directed at the back of abutments as per detailed specifications.	Sqm	1070	1180.34	12,62,963.80
92	Providing and filling sand behind abutments and between returns in layers as directed by Engineer In-charge.	Cum	10130	490.47	49,68,461.10
93	Providing & laying weep hole in Abutments, and returns by using A.C. pipe of 100 mm including laying in proper grade and jointing the completed as per detailed specification.	Each	1070	53.45	57,191.50
94	Providing and casting in-situ controlled cement concrete M 30 for approach slab including formwork curing and finishing complete	Cum	27	5223.58	1,41,036.66
95	Providing and casting in-situ controlled cement concrete M 20 For Raft and cutoff walls including necessary formwork, vibrating curing, and finishing complete (Toe Wall)	Cum	402	4419.99	17,76,835.98
96	Providing and casting RCC in M-40 controlled concrete crash barrier as per detailed drawings including necessary scaffolding, centering, formwork, mixing in machine, transporting, placing, compacting, finishing, curing, etc. complete including providing and fixing of inserts if any with all leads and lifts as per drawing & specification and as directed by Engineer, excluding reinforcement.	Cum	271	5110.61	13,84,975.31
97	Providing and fixing in position FE 550D (With CRS) TMT bar reinforcement including cutting, bending and tying complete as per detailed drawings. (A) R.C.C. Approach slab, (B) Toe Wall, (C) Crash Barrier	M.T.	91.00	75631.86	68,82,499.26
98	Painting Two Coats on New Concrete Surfaces (Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces) - For inner face of crash barrier	Sqm	850.00	81.81	69,538.50

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
99	Providing and laying Double Walled corrugated Pipes (DWC) of Polyethylene (conforming to IS:14930-II) of 50mm O.D. / 38mm I.D. with fittings and necessary connecting accessories of same material at required depth for laying cable below footpath slab etc. complete as per specification and as directed by Engineer.	Rmt	1360.00	62.71	85,285.60
100	Box cutting the road surface to proper slope and camber for making a base for road work including removing the excavated stuff and depositing on the road side slope as directed upto 50m lead.	Cum	8860	104.2	9,23,212.00
101	Earthwork for embankment including breaking clods, dressing with all lead and lift and including watering rolling and consolidation of subgrade in layers at O.M.C. to required dry density including filling the depression which occur during the process using vibratory roller 8t to 10t. (A) From borrow pits within land width.	Cum	2800	152.51	4,27,028.00
102	Construction of granular sub-base (Grade - V) by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MoRTH clause 401.	Cum	2610	1493.79	38,98,791.90
103	Construction of dry lean cement concrete Sub- base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table 600-1, cement content not to be less than 150 kg/ cum, optimum moisture content to be maintain during construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver compacting with 8-10 tonnes vibratory roller, finishing and curing as per MoRTH clause 601.	Cum	1960	2442.18	47,86,672.80
104	Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with in M -40 grade of concrete with 53 grade cement , 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 and mechanically laid with a fixed 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 as per drawing as per MoRTH clause 602	Cum	3910	6546.82	2,55,98,066.20

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
105	Providing and fixing pre-cast Rubber Dye / steel Dye inter locking concrete block 60mm thick with grade of concrete M300 pneumatic compressed / vibrated mechanically and as per approved design Confirming to IS 15658 : 2006 including 35 mm Sand layer for levelling and filling the joint with sand in proper line and level as per guidelines of IRC : SP 63-2018 etc. Complete.	Sqm	4850	683.88	33,16,818.00
106	Road marking with hot applied thermoplastic paints with reflectorising glass beads on bitumin surface providing and laying a hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is excluding of surface applied glass beads as per IRC: 35-2015. The finished surface to be leveled, uniform and free from streaks and holes. Zebra patta/bump patta lane/centre line/edge line/cut patta. The white colour marking should provide luminance coefficient on cemented road shall be 130 mcd / m ² / lux and asphalt roads shall be minimum 100 130 mcd / m ² / lux during the service life during the day time. The marking should meet the performance criteria for night time reflectivity, wet reflectivity and skid resistance as mentioned in the section - 15 of IRC:35-2015.	Sqm	670	367.72	2,46,372.40
107	Cat Eye / Road Stud / RPM: Supplying of Molded Twin Shanks Raised Pavement Markers made of polycarbonate and ABS moulded body and reflective panels with Micro prismatic lens (No Glass bead lens) capable of providing total internal reflection of the light entering the lens face and shall support a load of 13635 kgs. tested in accordance to ASTM D 4280 Type H and complying to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97 – DO III Dt 11.06. 1997. The height, width and length shall not exceed 20 mm, 130 mm and 130 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 +/- 5 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 +/- 2 mm and height not less than 30 +/- 2 mm) from the body is to be a minimum value of 500 Kgf. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and The color of the marker should be as per the IRC 35-2015 and as directed by Engineer-in-charge.	Nos	735	326.23	2,39,779.05
108	Retro-Reflective road signs.				

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
a.)	Facility Informatory Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 80 x 60 cms rectangular as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	Nos	4	5906.48	23,625.92
b.)	Regulatory / Mandatory Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 60 cms Dia Circle as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	Nos	2	4618.73	9,237.46

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
c.)	Hazard Marker Sign :-Providing and fixing sign boards made out of 1.5mm aluminium sheet / 3mm ACP (Aluminum composite Panel); size 90x30 cms. rectangular as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 1.8mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	Nos	2	3666.3	7,332.60
d.)	Direction (Junction) Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 244x122 cms. rectangular as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 4.0mtr long (2 Nos.) stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 50 x 50 x 5mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	Nos	2	26572.09	53,144.18

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
e.)	Men at work (2' x 2') sign :-Providing and fixing sign boards made out of 2.0 mm aluminium sheet / 4 mm ACP(Aluminum composite Panel); size 60cm x 60cm square as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.3 mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 50 x 50 x 5mm; painted with bestquality epoxy coatings in black and white bends. the details of symbol or inscription / numerals for each board shall be as per the instruction of engineer in charge.The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	Nos.	4	4962.13	19,848.52
f.)	Danger Plate :-Providing & fixing sign board made out of 2.0 mm aluminium sheet / 4 mm ACP (aluminum Composite Panel), size 30cms diameter circle, pretreated with phospheting process and acid etching, painted with one coat of epoxy primer and two coats of best quality epoxy paint reflectorised with retro reflective sheeting as per latest M.O.S.T. specifications. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	Nos.	4	531.26	2,125.04

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
g.)	Cautionary Warning Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 90 x 90 x 90 cms. equilateral triangle as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	Nos.	2	5077.27	10,154.54
h.)	Distance Informatory / Destination Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 180x120 cms. rectangular as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 4.0mtr long (2 Nos.) stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 50 x 50 x 5mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	Nos.	2	20918.11	41,836.22

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
i.)	Village Name Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 90x60 cms. rectangular as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.3mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol or inscription/letters / numerals for each board shall be as per the instruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	Nos.	2	6313.51	12,627.02
109	Excavation for foundation in sand, gravel, clay soft soils and murrum etc. including shoring, strutting dewatering as necessary and disposing of the excavated stuff as directed.(A) Depth upto 3.0 M. and lead upto 100m for 10 Cum	Cum	3370	486.77	16,40,414.90
110	Providing and filling in foundation with ordinary Cement concrete M-15 mix and providing necessary vertical pin headers including formwork, vibrating, ramming and curing complete.	Cum	490	3596.68	17,62,373.20
111	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed - RCC work & PCC Work				
	RCC	Cum	300	886.05	2,65,815.00
	PCC	Cum	30	13.13	393.90
112	Providing and Casting in situ Controlled Cement Concrete M25 for Box Drain and Head walls including necessary shuttering laying, vibrating, ramming and curing complete.	Cum	1240	4525.72	56,11,892.80
113	Providing and placing in position FE 550D (With CRS) TMT bar reinforcement for following items including cutting bending hooking and tying complete as per detailed drawing.For RCC Raft & Open foundation.	MT	121	75631.86	91,51,455.06
114	Earthwork for embankment including breaking clods, dressing with all lead and lift and including watering rolling and consolidation of subgrade in layers at O.M.C. to required dry density including filling the depression which occur during the process using vibratory roller 8t to 10t. (A) From borrow pits within land width.	Cum	2460	152.51	3,75,174.60

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
115	Supplying and fixing reinforced concrete heavy duty non-pressure pipes with collars for culverts including setting and joining the pipes in C.M. 1:2 watering and laying (To level of slops of I.S. 458 / 1971 Class NP4 casted by vertically vibrated technology of following internal diameter. 900mm dia.	Rmt	260	3879.11	10,08,568.60
116	Providing and laying rubble for appron (Each stone weighting not less than 40 kg.) including and packing and filling in the interestices with quarry spalls. (More than 10 ton)	Cum	60	1041.05	62,463.00
117	Planting of Trees and their Maintenance (Planting of trees by the central verge / Road side and maintaining the plants)	km	3.00	368944.72	11,06,834.16
				Total Rs.	25,08,54,408.01
Electrical Lighting Portion					
118	Section Feeder Panels Providing and erecting Three Phase IoT GSM/GPRS Central Control & Monitoring System (CCMS) Panel for Streetlights Smart Feeder Panel with 3 Phase GSM/GPRS CCMS Streetlight Controller with LCD Display (1 Nos.). Streetlight Controller with Individual each Phase Control (Energy Saving feature) and Spare relay facility. Streetlight Controller having 10 years of reserved battery for RTC. With 50 programmable schedule, month-wise offset settable facility, Astronomic sunrise/sunset time programming in-built for year long schedule. Operating Voltage @ 440 V AC with Over Voltage & Short Circuit protection. 2 hour Battery Back-up for Streetlight Controller. Panel to have 1 Nos. of 3 Phase – Class 1 Energy Meter for Energy & Fault monitoring on CCMS Web Dashboard. Panel consisting of 3 Nos. of 3 Pole Contactors (3 x 18 A), 7 Nos. of 1 Pole Miniature Circuit Breakers (32 Amp.) for Bypass, Input / Output supply functionalities, 1 Nos. of 4 Pole Earth leakage circuit breaker for safety protection. Standard lock & key facility for Panel security. Door Switch for unauthorized access & tamper detection. Accelerometer for panel movement detection & tamper alerts. Suitable amount of Wires, Connectors, Terminal Blocks included in Panel. 16/18 gauge M S with industrial exterior powder coated PP with seven tank process RAL 7035 All weather-proof Enclosure Panel having IP65 rating. Waterproof Glands & Grounding Stand included. Dedicated IoT communication GSM/GPRS SIM Card (with minimum 5 years of recharge) for Wireless Communication with CCMS Web Dashboard. 5 Years Data Hosting & Server Charges to be included with CCMS Web Dashboard. Load status, Live analytics, Energy Meter monitoring (Parameters such as kW, kWh, PF, I, V), comparative analytics, reports generation facility. Fault detection on web dashboard. GIS Mapping of CCMS Panel on Web Dashboard. Secured MQTT Communication for Cloud. Includes Android & iOS Mobile Application. Local communication facility via Mobile Application in case of GPRS connectivity failure. Panel Should Have lockable Space to incorporate the 1 nos of the 3 phase energy meter with its main switches with separate cable entry with separate compartment & Separate door.	no	2	59382.33	1,18,764.66
119	SITC of Water Tight Junction Box of Hensel make Cat. No. KG9003IN (For Poles) or equivalent. With necessary clamp for mounting of the J.B. (All the cable / wire connections to the JB shall be with the Water tight Glands only)	no	8	3402	27,216.00

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
120	SITC of Water Tight Junction Box of Hensel make Cat. No. MI0301 with 10 sq. mm x 5 pole terminal of Hensel Cat. No. KLS10 with 3 nos of 6 sq. mm. x 5 pole terminal of Hensel make KKL06 with 1 no of Mounting plate of Hensel cat. no. MIMP3 with 4 nos of IP66 Hensel Glands with Din Rail for FP ELMCB With necessary clamp for mounting of the J.B. (All the cable / wire connections to the JB shall be with the Water tight Glands only)	no	2	11680	23,360.00
	MCB SITC of the MCB's (10 KA) Timers , & Contactors With the Dinrail Channel				
121	providing and erecting Miniature circuit breaker single pole 0.5A to 2A system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark	no	200	268.13	53,626.00
122	Miniature circuit breaker single pole suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark 6 to 25 A SP MCB	no	2	111.13	222.26
123	Providing & erecting 240 V MCB double pole switch for motor & inductive load (C Curve) having 10 KA breaking capacity & confirms to IS : 8828 in existing box having following capacity 6 to 32 A DP MCB	no	2	297.13	594.26
124	Approved make ELCBs / RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 6 KA and suitable for operation on single phase 240 V. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed 25 to 32A / 30mA/100 mA DP ELMCB	no	2	1950.43	3,900.86
125	40 A / 100 mA DP ELMCB	no	2	2213.43	4,426.86
126	Providing & erecting 415 V MCB three Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (a) 6 to 32 Amp. Cat.III	no	2	582.26	1,164.52
127	Providing & erecting 415 V MCB three Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (b) 40 Amp. Cat.III	no	2	641.26	1,282.52

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
128	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity 6 to 32A FP MCB	no	2	590.26	1,180.52
129	Supplying & erecting power contactor for time switch complete erected as per direction Cat III [B] 2 pole 250V 32 Amp.	no	2	1865.26	3,730.52
130	Supplying & erecting power contactor for time switch complete erected as per direction Cat III [D] 4 pole 440V 40 Amp.	no	2	2755.26	5,510.52
131	Supplying & erecting approved make Digital time switch having lithium cell 6 years operative and operate battery backup 1 channel day clock with 14 memory programme, suitable to operate on 240V + 5%, 16A with, floating contacts Minimum switching setup time 1 minimum & LCD display. Also comprised permanent ON/OFF switching. Programming switches & housed in fire proof thermoplastic enclosure & transparent cover erected as required with necessary connection erected as directed.	no	2	3137.43	6,274.86
132	Cable Trenches, Manholes & Pipes (B) If additional machinery like hammer driller or JCB use [Add]	mt	500	297.95	1,48,975.00
133	Making trench in soft soil of suitable width of 90 cms deep from the final ground level or road level for laying cable or locating the fault all over the run and backfilling the same & clearing the site by removing debris & Shifting of the debris & making site good As per the Instruction of the Engineer Incharge.	mt	500	46.46	23,230.00
134	Making trench in Hard murum / Tar Road of suitable width of 90 cms deep from the final ground level / road level for laying cable or locating the fault all over the run and backfilling the same and making the surface proper. by removing debris & Shifting of the debris & making site good As per the Instruction of the Engineer Incharge.	mt	500	62.62	31,310.00
135	Covering of cable with second class bricks laid cover the cable crosswise & also on both sides with covering of 7. 5 Cms. layer of sand above & below cable (cable shall be laid in 0.9mtr.deep & 0.4 Mtr.wide trench). Where there are more than one cable in the trench on either side of the cable, 5 Cms. over lapping of bricks shall be provided.	mt	500	133.31	66,655.00
136	Driling the road without breaking the road surface (Asphalt) for laying of cable for feeding power supply by making Suitable size of holes at both ends complete. (A) Up to 100 mm bore dia	mt	500	411.07	2,05,535.00
137	Driling the road without breaking the road surface (Asphalt) for laying of cable for feeding power supply by making Suitable size of holes at both ends complete. (B) Up to 150 mm bore dia	mt	500	514.09	2,57,045.00

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
138	Construction of brick masonry pulling chamber 1250 mm x 1250 mm inside clear size and depth upto 1.2 meter with 350 mm thick masonry in cerment mortar proporation 1:5,cement finish cement plaster in CM proportion of 15 mm thickness from inside with 150 mm thick PCC at bottom with top slab minmmum 200 mm thickness in M20 grade with reinforcement. The rate shall be inclusive of providing and fixing frame and cover of FRC for the Heavy Duty. Rate also inclusive of excavation and back filling & clearing the site by removing debris & Shifting of the debris & making site good As per the Instruction of the Engineer Incharge complete in all respect.	no	28	17709	4,95,852.00
139	Providing & laying. Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II) Anti Rodent type with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable with Excavation and backfilling the same to make ground as per original. (A)50 mm dia	mt	3000	62.09	1,86,270.00
140	(B)90 mm dia	mt	200	95.09	19,018.00
141	(C)120 mm dia.	mt	200	136.09	27,218.00
142	Providing & laying approved make ISI marked HDPE 6Kg / cm2 (Class-3) as per IS:4984:1995 PE-80 to be erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6 mtr. (E) 90 mm inner Dia	mt	200	487.09	97,418.00
143	(F) 110 mm inner Dia.	mt	200	725.09	1,45,018.00
144	Providing and erecting 1.5 mm thick FIA approved and ISI mark (embossed) RIGID PVC PIPES of following size complete erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following type of erection. For erecting concealed / Open in wall/slab along with continuous fish wire to draw mains, laid in approved manner with plastering by cement mortar & finishing the surface to match the wall/ceiling. (A) 25mm	mt	200	32.06	6,412.00
145	(B) 32mm	mt	150	52.07	7,810.50
146	(C) 40mm	mt	60	64.08	3,844.80

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
147	Cables Supply and Laying XLPE(IS:7098) (I)-88 ISI marked armored cable of Cu. / Aluminum conductor of 1.1 KV.grade of following sizes in ground or in pre-laid DWC pipe / Trenches with necessary cable identification mark to be provided at distance of 15 mt. & with 2 nos. of 16 SWG G.I. wire continuous in length per cable. 35 sq.mm x 3.5 c Al. cable	mt	200	215.17	43,034.00
148	25 sq.mm x 4 c Al. cable	mt	200	187.12	37,424.00
149	16 sq.mm x 4 c Al. cable	mt	2200	150.12	3,30,264.00
150	10 sq.mm x 4 c Al. cable	mt	1500	137.12	2,05,680.00
151	6 sq.mm x 4 c Al. cable	mt	500	123.12	61,560.00
152	Supplying and laying Flexible PVC insulated multistrand multicore 1.1 kv grade ISI marked copper wires of following size. 1.50 Sq.mm 3 core round PVC sheathed	mt	1750	44.02	77,035.00
153	2.50 Sq.mm 3 core round PVC sheathed	mt	750	73.02	54,765.00
154	4.00 Sq.mm 3 core round PVC sheathed	mt	200	120.03	24,006.00
155	Cable Termination Supplying & fixing Double Compression type Brass glands & making joint with necessary crimping socket of long neck type connecting the same to various equipment etc. for the following sizes: 35 sq.mm x 3.5 c Al. cable	no	4	150.23	600.92
156	25 sq.mm x 4 c Al. cable	no	2	126.23	252.46
157	16 sq.mm x 4 c Al. cable	no	90	107.23	9,650.70
158	10 sq.mm x 4 c Al. cable	no	24	90.19	2,164.56
159	6 sq.mm x 4 c Al. cable	no	10	62.15	621.50
160	4 Sq.mm x 3c Cu. XLPE ARM Cable	no	10	51.14	511.40
161	Street light Poles Drawings to be approved by Architect / Consultant/ Client. Supply & Installation of GI Pole made out of B CLASS ERW G.I. PIPE for road having Height - 8 metre having thickness of 4.5 mm, 165 mm outer uniform dia., with base plate of 450 x 450 x 16 mm with stiffener plate with Seprate integral type junction box (For Street light) , with j bolt, necessary hardware as per detail, with necessary Reducer / Coupler / for fixing of light fixtures & Hinged access door with welded chain between pole and hinged door with Allen key require to access the integral junction box, Fabrication work complete in all respect as per given detail with one coat of zinc oxide complete in all respect as per Drawing. Rate shall be including two coats of PU paint of shade as per drawing or as directed by Architect (effective length should be 8000mm above GF) (Sample to be approved)	no	42	22647	9,51,174.00

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
162	Supply & Installation of GI Pole made out of B CLASS ERW G.I. PIPE for road having Height - 9 metre having thickness of 4.5 mm, 165 mm outer uniform dia., with base plate of 450 x 450 x 16 mm with stiffener plate with Seprate integral type junction box (For Street light) , with j bolt, necessary hardware as per detail, with necessary Reducer / Coupler / for fixing of light fixtures & Hinged access door with welded chain between pole and hinged door with Allen key require to access the integral junction box, Fabrication work complete in all respect as per given detail with one coat of zinc oxide complete in all respect as per Drawing. Rate shall be including two coats of PU paint of shade as per drawing or as directed by Architect (effective length should be 9000mm above GF) (Sample to be approved)	no	5	26112	1,30,560.00
163	Providing cement concrete.for foundation or for concrete filling in 1:2:4 ratio with 20 to 25 mm stone metal duly plastered with necessary curing for pole muffing or any other purpose. (450mm x 450mm x 2200 mm)	no.	113	2260.13	2,55,394.69
164	TMT Bar for Pole Foundation	Kg.	2260	77.29	1,74,675.40
165	SITC of Single 1 Mtr G.I.bracket with 2 coat P.U. Paint with primer (Related To Pole Design). Note : Sample must be Approved from Client / Architect / Consultant before supply.	no	170	1815	3,08,550.00
166	SITC of Double 1 Mtr G.I.bracket with 2 coat P.U. Paint with primer (Related To Pole Design). Note : Sample must be Approved from Client / Architect / Consultant before supply.	no	5	2145	10,725.00
167	SITC of Three 1 Mtr G.I.bracket with 2 coat P.U. Paint with primer (Related To Pole Design). Note : Sample must be Approved from Client / Architect / Consultant before supply.	no	2	2778	5,556.00

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
168	Light Fixtures Luminaries with all electrical accessories & it should be energy efficient, low loss, ortho cyclically wound open construction copper ballast, ignitor & power factor improvement capacitor etc are prewired upto the terminal block & mounted on a removable control gear module for ease of maintenance. All electrical connections of the control gear module with the rest of the luminaire should be click fix & foolproof & require use of no tools. Mounting options should be for both lateral as well as pole top mounting Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 130 lm/w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD < 10 %, CCT 4000 K,Uniformity ratio >0.45, Luminaire efficacy> 100 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (A) Street Light (IP-65), Surge protection -4KV integral and ,Light must have 440VAC line supply with over-voltage protection.	No	84	6502.7	5,46,226.80
169	(vi)above 160 to 200 watts	No	84	9019.7	7,57,654.80
170	Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 130 lm/w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD < 10 %, CCT 4000 K,Uniformity ratio >0.45, Luminaire efficacy> 100 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (B) Flood Light (IP-65), Surge protection -4KV integral and ,Light must have 440VAC line supply with over-voltage protection. (iii) Above 60 to 90 watts	No	20	6029.7	1,20,594.00
171	(iv) above 90 to 120 watts	No	5	7196.7	35,983.50
172	(vii) above 200 to 250 watts	No	5	10712.7	53,563.50

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
173	Earthing Plate Type Earthing Supplying & erecting funnel type earthing having earth plate of following size buried in specifically prepared earth pit 3 mtr. below ground with 40 kg. charcoal and salt with alternate layers of charcoal & salt, 20mm.dia. G.I. pipe with Funnel with a wire mesh for watering & bricks masonry block, C.I. Cover complete as per para 7.3 of IS 3043 with necessary length of double Galvanised Iron / copper earth wire No 6 SWG bolted with lug to the plate and covered in 12 mm dia. G.I. pipe 2.5 mtr long complete connected to the nearest switch gear with end socket as per direction & duly tested by earth tester confirming to IS (As per drawing) with following specification (B) With 45 x 45 x 0.35 cms. C.I. earth plate	no	2	2549.78	5,099.56
174	Chemical Type Earthing Supplying & erecting in earthpit of minimum bore dia. 225mm size , approved make Safe Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of Copper Pipes having Outer pipe dia of 50mm having , Inner pipe dia of 40 mm , connection terminal dia of 14 mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications. (b)For Electrical installation up to 11 KV in normal soil. Length of Pipe : 2.00 mtrs Back filling Compound :1 no. Bag of 25 Kg.	no	20	5706.82	1,14,136.40
175	Pipe type earthing with 40 mm dia 2.5 mtr long 'B' grade G.I. pipe with necessary coupling buch buried in specially prepared earth pit & G.I. earth wire of 8 SWG erected & connected as directed (For panel)	Ea.	8	816.28	6,530.24
176	Earth wire/strips : Supply and laying required size Cu/GI. earthing strips for interconnecting the earthing stations, panels, section pillar etc. in built up trenches, on walls/ceiling, buried in ground generally as specified and shown on drawings complete with : a) Fixing accessories. b) Corrosion protection of buried conductors with bituminous coating and covered with PVC tapes. 25 x 3 mm GI. strip	Kg.	100	77.17	7,717.00
177	No.8 gauge bare cu. earth wire	Kg.	50	787.34	39,367.00
178	No.8 gauge bare GI. earth wire	Kg.	700	77.17	54,019.00
179	Miscellaneous Liason / Follow UP with Supply Co. Filling the necessary application to supply co. following up and getting the supply filling the necessary test report to the supply co. inclusive. All official fees including security deposits will be paid by the client and out of pocket expenses shall be of contractor. More than 10 KW	No	2	5000	10,000.00

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
180	Removing & Relaying Dismantling and removing of existing Section feeder pillar and deposite to the store as per GMC / Client Engineer instruction.	Lot	1	100000	1,00,000.00
181	Removing of existing pole, Pole Foundation, Light Fixtures, High Mast, Cables & Shifting to the Clients store carefully. Written concent to be taken from the clients engineer for material submitted at store. Any ambiguity in this matter will be at contractors scope. Scope also includes the temporary illumination work ehere ever contractor removes the pole, where ever dark patch is there & Where the old power source is available, proper nos. of temporary Street light / flood light for illumination of entire road length shall be provided and lux level should be maintain Average 25-35lux, arranged & maintained by the agency till the new poles are commissioned and put in working order.	Lot	1	100000	1,00,000.00
182	Providing , erecting , fabricating the M.S. structure as per requirment on site incorporatingproper size of M.S. angles, flats, bars, channels, pipes, sections, Sheets & for the pole swaging with the suitable dia pipe complete with cutting, welding, grinding & finishing duly painted with two coat of redoxide with erection on site as per direction of engineer in charge with necessary gouting, cementing, plastering & finishing complete as per the instruction of the engineer incharge.	Kg	1000	65	65,000.00
				Total Rs.	66,72,962.09
PROVIDING AND LAYING WATER SUPPLY LINE AT DHRANGADHRA L.C. 48A OF GUDC AREA					
183	Excavation for pipe line trenches distribution network, valve chambers for all required gradient and line including safety provisions using site rails and stacking excavated stuff including up to all required lead cleaning the site etc. complete for all lifts and strata as specified.				
	In all sort of soils and soft murrum	m ³	1080	102.35	1,10,538.00
184	Providing and supplying DI K-9 grade pipe with EPDM gasket for following nominal bore diameter with internal cement mortar lining including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to site, stacking etc. complete. (IS 8329-2000).				
	200 mm dia. DI pipe (K-9)	Rmt	450	2239.00	10,07,550.00
	250 mm dia. DI pipe (K-9)	Rmt	405	2998.00	12,14,190.00
185	Lowering, laying and jointing DI Pipes of various classes with specials of following diameters in propoer position grade and alignment as directed by Engineer in charge.				
	200 mm dia. DI pipe (K-9)	Rmt	450	113.85	51,232.50
	250 mm dia. DI pipe (K-9)	Rmt	405	146.05	59,150.25

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
186	D.I. Specials - Manufacture, Supply,Delivery of Ductile Iron flanged Socket Spigot Bends, tees,reducers or any other specials as per BS-EN-545/1995 Class-A series K12 suitable for use with D.I Pipes manufactured as per IS:8329/1994 delivery of specials to site of works any where in Gujarat including fixing, all taxes, loading, unloading, carting, stacking,insurance, inspection charges, octroi etc. complete.				
	For 100 to 300 mm dia	Kg	1041	148.00	1,54,068.00
187	Providing and laying cement concrete M20 for thrust block and encasing including formwork but excluding the cost of reinforcement with curing etc. complete, as directed.	m ³	80	4280.89	3,42,471.20
188	Labour charges for making hole below road 'surface at required of required size with hand tools 'including refiling after completion of laying and 'testing of pipe line below 300 mm dia. of pipe.	Rmt.	200	641.35	1,28,270.00
189	Providing TMT Bar Fe-500/500D reinforcement bars for R. C. C. work including bending, binding and placing in position complete upto floor two level.	MT	3	76214.60	2,28,643.80
190	Providing and laying cement concrete 1:2:4 (1 cement : 2 coarse Sand :4 Graded stone aggregate 20 mm nominal size) and curing etc. complete excluding cost of form work.	m ³	1	3631.49	3,631.49
191	Providing,supplying, fixing, Lowering, laying & jointing ISI mark Ductile Iron D/F manually gear operated SLUICE VALVE including taxes, insurance, transportation, freight charges, Octroi Inspection, charges, loading , unloading, conveyance to site stacking, etc. complete valve with ISI mark only				
	PN 1.0 with hand wheel /cap operated (PD Type Short body)				
	* 200 mm	No.	1	9813.00	9,813.00
	* 250 mm	No.	1	15920.00	15,920.00
192	Providing and supplying CI/DI Tamper proof /Bi Stream Air valves with SS 304 Float gun metal nozzle of approved make & quality of following class and diameter including all taxes, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to the departmental stores, stacking etc. complete.				
	With isolating sluice valve PN 1.0				
	(a) 50 mm dia	No.	1	11221.00	11,221.00
	(b) 80 mm dia	No.	1	13789.00	13,789.00
193	Lowering, laying and jointing in position following C. I. / D/F Reflux valves, Butterfly valves, Sluice valves and Air valves including cost of all labour, jointing material, including nut bolts and giving satisfactory hydraulic testing, etc. complete.				
	200 mm	No.	1	853.30	853.30
	250 mm	No.	1	1087.90	1,087.90

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
	Air valves double ball Flanged (a) 50 mm dia	No.	1	435.85	435.85
	(b) 80 mm dia	No.	1	472.65	472.65
194	Refilling the pipeline trenches including ramming, watering, consolidating disposal of surplus stuff as directed within a radius of 3 Km.	m ³	1045	25.30	26,438.50
195	Excavation in bituminous road / RCC Road RCC with blasting, breaking, chiseling, or by chiseling/breaking only as per required gradient and line including safety provisions using site rails and stacking excavated stuff including up to all required lead cleaning the site etc. complete for all lifts as specified.	Smt	1640	358.23	5,87,497.20
196	Construction of chambers in brick masonry, locally available in C.M. 1 : 6, foundation concrete 150 mm thick in C.C. 1:4:8 of trap metal size 25 mm to 40 mm thick, inside cement plaster in C.M. 1:3 and cement pointing outside in C. M. 1 :3 & top cover of precast RCC slab 100 mm thick upto 1 mt. depth from G.L. but excl. cost of excavation and refilling. With cast in situ RCC slab in two piece with fixing FRC frame and cover etc. complete(excluding cost of frame & cover) with 23 mm thick brick masonry wall in C.M.1:6				
	(1) For Sluice Valve & Air Valve				
	a).0.9 x 0.9 mt. and 1.0 mt. deep chamber	No.	2	8898.70	17,797.40
	b) for 1 m. extra depth	Rmt.	3	5150.85	15,452.55
197	Providing F.R.C. MH seat cover incl. carting to the work site etc. comp. Directed. F.R.C. Extra Heavy Duty (EHD-35) machinehole Covers & Frames Cover: 728mmø & 100 mm thick circular cover, 35.00MT load design,100 x 2mm MS flat all round,16mm øplain round bar for lifting the cover & should be fitted with plastic cups. Frame:560mm ø clear opening, -888 x 888 x 175mm. On the upper periphery off rame 25x3 mm wide MS flat should be well embed in concrete to protect the edges off rame. FRCE.H.D.-35 machinehole cover & frame described as above.	No.	3	2380.00	7,140.00
198	Demolition and disposal of unserviceable materials with all lead and lift. i) Unreinforcement Cement Concrete	m ³	100	593.35	59,335.00
199	Demolition including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift				
	i) R.C.C. Work	m ³	100	1030.81	1,03,081.00

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
200	Demolition of Brick work and stone masonry including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift				
	i) In Cement Mortar	m ³	100	536.09	53,609.00
				Total Rs.	42,23,689.00
Providing and Laying Sewerage Line At Dhrangadhra L.C. 48A (Length - 410 m) of GUDC Area					
201	Excavation for trenches with shoring & strutting if required as per required gradient and line including all safety provision using site rails and stacking excavated stuff including up to all required lead cleaning the site etc. complete for all lift and strata as specified. In all sort of soils and soft murrum				
	0.0 to 1.5 m.	cu.m.	1440	102.35	1,47,384.00
	1.5 to 3.0 m.	cu.m.	950	112.70	1,07,065.00
	3.0 to 4.5 m.	cu.m.	335	118.45	39,680.75
202	Dewatering In all sort of soils and soft murrum, hard murrum and boulders, soft rock, up to 1.5 mt. depth from G.L Extra for Dewatering in all sorts, of Strata's for each 1.5 mt. or Part there of Betood 1.5 mt. depth.				
	3.0 to 4.5 m.	cu.m.	104	42.55	4,425.20
203	Providing bedding including ramming, watering, consolidating etc. Complete as per standard and instruction of engineer incharge. As above with required quality Sand brough from outside including all lead.	cu.m.	30	378.35	11,350.50
204	Providing and laying cement concrete 1:2:4 (1 cement : 2 coarse Sand :4 Graded stone aggregate 20 mm nominal size) and curing etc. complete excluding cost of form work.	m3	35	3631.49	1,27,102.15
205	Providing and supplying ISI Standard R.C.C. pipes (Horizontal Cast) of Sulphate Resisting Cement) in standard lengths of following class and diameter suitable for either collar joints or rubber ring joints including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to departmental stores, stacking etc. Note : One collar should be supplied with each full length plain ended RCC pipe, cost included in rates below. One rubber ring should be supplied with each full length socketed pipe, cost included in rates below. As Directed by Engineering in charge. RCC NP3 Pipe				
	250 mm dia.	Rmt.	410	527.00	2,16,070.00
206	Lowering, laying & jointing R.C.C pipes in C.M. 1:1.5 for following dia in proper position , grade and alignment as directed by Engineer -in-charge including conveyance from store to site of work. Labour giving Hydraulic testing as per ISI code. R.C.C. PIPES (At any Depth)				
	250 mm dia.	Rmt.	410	111.55	45,735.50

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
207	Providing and constructing Sewer manholes as per the type design in brick masonry in C.M. 1 : 5 and inside and outside 20 mm thick plastering in C.M. 1:3 necessary 100 mm coping with reinforcement in R.C.C. M 200, providing and fixing C.I. steps and fixing manhole frame and covers (But excluding supply of manhole frame and covers) over manholes etc. complete, providing and fixing safety chain wherever necessary as per the stipulations in the type design complete as per latest CPHEEO manual. (excl. excavation)				
a)	Manhole type "B" circular type having inside diameter of 1500 mm and for depth from 1.5 m to 4.0 mt. (For 150 mm to 600 mm dia sewer) Manhole type "B" as above but upto 1.5 m depth	No.	14	24283.40	3,39,967.60
b)	Extra depth beyond 1.5 mt. but upto 4.0 mt. depth for type "B" manhole above.	Rmt.	28	14159.95	3,96,478.60
208	RCC Precast M.H Fram & cover- Rcc precast M.H. Fram & Cover Manufacture, supply & Delivery of store or at site of work precast RCC M 200 Fram & cover suitable to drainage M.H and as per type design & Drawing including cost of reinforcement M.S Angies or flat, curing mold work etc. Heavy duty (i) Frame suitable for 50 cm opening of MH (ii) Cover suitable for 50 cm opening of MH	No.	14	2294.00	32,116.00
209	Refilling the pipeline trenches including ramming, watering, consolidating disposal of surplus stuff as directed within a radius of 3 Km.	cu.m.	3045	25.30	77,038.50
210	Making connection to the ex. M.H. in running sewer incl. Dewatering and other required machinery etc. of following dia pipes at any convenient time. All damaged work shall be well repaired as per instructions. etc. complete.				
	250 mm dia	No.	2	1500.00	3,000.00
211	Excavation in bituminous road / RCC Road RCC with blasting, breaking, chiseling, or by chiseling/breaking only as per required gradient and line including safety provisions using site rails and stacking excavated stuff including up to all required lead cleaning the site etc. complete for all lifts as specified.	Smt.	1750	358.23	6,26,902.50
212	Dewatering by pumping set of required capacity including temporary platform carting pumping at site and fixing the same in position including all accessories, and fuel and labour etc. complete. Pump set of capacity	HP/hr	54000	21.07	11,37,780.00
		Total Rs.			33,12,097.00
		Grand Total			32,81,31,722.93

Item No	Item Description	Unit	Qty.	Rate in Rs.	Amount (Rs.)
<p>I/We am / are willing to carry out the work at % above/ below percent (Should be written in figures and words) of the estimated rate mentioned above. Amount of my / our tender works out as under.</p>					
(A) Estimated Amount Put to Tender =		Estimated Amount Put to Tender =			
(B) Deduct..... % below		Add..... % Above			
(C) Net tendered amount (A - B) =		Net tendered amount (A - B) =			
In Words (Rupees.....)		In Words (Rupees.....)			
<p>(* Please strike out whichever is not applicable)</p>					
1	All work shall be carried out as per public works Department Handbook and other specifications of Division or as directed.				
2	All the columns in Schedule should be filled in ink and the total of the entries in the last column should be struck by the contractor under his signature.				
3	Rates quoted include clearance of site (Prior commencement of work and as its close) in all respects and hold good for work under all conditions, site, moisture, weather etc.				
4	To be Continued on additional sheets, if found necessary.				
5	The Labour Cess shall have to be deducted from payable bill as per prevailing Rules.				
6	For abnormal high or low rates payment of such items shall be regulated as per Govt. circular No. PARACH / 102008 / 61 / S, Dt. 27/11/2008 attached with tender papers.				
<p>Signature of Contractor</p>					