

CONSTRUCTION OF CROSS DRAINAGE STRUCTURES ON VARIOUS ROADS IN MORBI DISTRICT - PACKAGE -1					
SCHEDULE – B QUANTITY STATEMENT					
It. No.	Quantities estimated out or less	Item of Work	Estimated rate	Unit	Total Amount according to estimated quantities
			In Figure		
1	2	3	4	6	7
1	3116.8	Demolition including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift. (i) R.C.C. work	1082.3	Cum	33,73,479.38
2	18354.6	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	511.1	Cum	93,81,251.53
3	1388.5	Providing and laying plain cement concrete in levelling course complete as per drawings and technical specifications as per sections 1500, 1700 and 2100 of MORTH. (M-15)	3772.2	Cum	52,37,729.74
4	1292.6	Providing and laying plain cement concrete grade M-15 PCC Toe wall for toe protection i.e. to prevent the slope pitching from sliding down, with graded machine mixed stone aggregate from 6 mm to 40 mm including tamping, vibrating, leveling and curing complete with all formwork, dewatering wherever required including all materials, labours, plants, machineries & tools, all leads and lifts, etc. complete as per specification.	3772.2	Cum	48,75,834.02
5	729.7	Providing and fixing in position (Thermo mechanically Treated bars) TMT Fe550D CRS conforming to IS 1786 reinforcing bars of various diameters for Box structure , retaining wall, etc. 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 The rate includes for supply, loading, unloading, transporting to site, cutting, bending, lap length, hooking, placing, tying in position with contractor's own binding wire, welding, forming the cage and lowering it in position in pile bore etc. Welding and supporting in position to ensure lines and levels during concreting, maintaining proper cover/ spacing, all leads & lifts, etc. including contractor's own equipment, labour, supervisor, taxes, machineries, etc. complete as per drawings and specification.	77728.6	MT	5,67,17,267.02
6	7288.8	Providing and casting in situ controlled cement concrete M-25 for R.C.C. box structure, as per drawings, Stem of Retaining wall etc. using 6 mm to 20 mm machine crushed well graded stone aggregate, sand of approved quality, OPC 53 grade cement with contractor's own concrete mix design etc. complete as per specification. The rate is inclusive of all materials, including necessary mixing in fully automatic batch mix plant, transport, curing, vibrating, placing in position, scaffolding, staging, normal shuttering, formworks, deshuttering carefully, making good the damages, fixing embedment, inserts, pockets, wherever necessary, with all lead and lift with contractor's labour, tools & plants, machineries, as required, with including cost of fair finish form work.	5304.3	Cum	3,86,62,095.80
7	2206.2	Providing and laying - Filter Media 600mm thick directed at the back of abutments, returns and wing walls as per detailed specifications.	1226.0	Sqm	27,04,688.32

It. No.	Quantities estimated out or less	Item of Work	Estimated rate	Unit	Total Amount according to estimated quantities
			In Figure		
1	2	3	4	6	7
8	1699.3	Providing & laying weep hole in Abutments, and returns by using A.C. pipe of 100mm including laying in proper grade and jointing the completed as per detailed specification.	86.7	Nos.	1,47,326.59
9	4877.2	Back filling behind Abutment, wing wall and return wall with selected granular material of approved quality including all the materials, compacting, labour, equipment charges, etc all complete as per drawing and Technical Specification Section 300 (Percentage of fine content maximum 15%, Backfill soil phi 30°, Density 20 kN/m3, Field compaction 95±2% modified proctor density.	504.4	Cum	24,60,186.04
10	1382.5	Providing and laying rubble for apron (each stone weighting not less than 40Kg.) including and packing and filing in the interestices with quarry-spalls. For Rigid Apron.	1083.8	Cum	14,98,349.70
11	1784.2	Providing and laying plain cement concrete grade M-20 curtain wall with minimum depth below floor level of 2m on upstream and 2.5m on downstream side as per clause 20.1.2.3 of IRC:SP:13:2004 and section 2507.1 of MORTH specification.	4591.5	Cum	81,92,414.67
12	2384.7	Providing and laying rubble for apron (each stone weighting not less than 40Kg.) including and packing and filing in the interestices with quarry-spalls. For Flexible Apron.	1083.8	Cum	25,84,563.61
13	342.5	Providing and laying Filter material underneath pitching in slopes 300mm thick complete as per drawing and Technical specification.	309.8	Sqm	1,06,106.93
14	170.2	Providing and laying Pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications.	1136.6	Cum	1,93,421.07
15	363.5	Providing and casting in situ controlled cement concrete M-25 for Parapet Wall, as per drawings. Stem of Parapet wall etc. using 6 mm to 20 mm machine crushed well graded stone aggregate, sand of approved quality, OPC 53 grade cement with contractor's own concrete mix design etc. complete as per specification.	5304.3	Cum	19,28,289.90
16	850.1	Providing and casting in situ controlled cement concrete M-30 for average 75 mm thick wearing coat laid as directed including tamping, vibrating, finishing, curing and filling in joints with bitumen complete	5536.1	Cum	47,06,202.25
17	0.8	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	28448.5	Hectare	23,043.30
18	0.0	Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately	0.0	0.0	
18.1	474.7	Dismantaling of Bituminous Layer	256.8	cum	1,21,884.36
18.2	1709.4	Dismantaling of Granular Layer	357.3	cum	6,10,690.30
19	14093.2	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 power roller 8T to 10T.(E) From Borrow area within 3.0KM lead.	210.2	Cum	29,62,396.61

It. No.	Quantities estimated out or less	Item of Work	Estimated rate	Unit	Total Amount according to estimated quantities
			In Figure		
1	2	3	4	6	7
20	2503.7	Construction of sub-grade and earthen shoulders using quarry spall with all lead and lift and including watering and rolling and consolidation of sub grade in layers at OMC to required dry density including filling the depressions which occur during the process using power roller 8T to 10 T	290.6	cum	7,27,454.00
21	1038.6	Construction of granular Sub base with Coarse Graded Material (Grade II) (Table:- 400- 2) of 200 mm by providing coarse graded material Metal Crushed using size 53mm to 26.5 mm@ 27.5%, 26.5 mm to 9.5 mm @ 22.5%, 9.5mm to 4.75mm @12.50% and 4.75mm below @ 37.5% spreading in uniform layers with including and mixing the material obtained from cutting BT road by milling machine using 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 Clause 401.2 Table 400.1 grade-V.	1111.3	cum	11,54,210.40
22	1080.6	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density.-Grading 1, Using Screening Crushable type such as Moorum or Gravel.	1559.1	Cum	16,84,698.95
23	1329.7	Cement Concrete Pavement (Construction of un-reinforced, dowel jointed, plain cement concrete 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, transported to site, 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)	5586.0	Cum	74,27,803.55
24	18.0	Providing and fixing sign boards made out of 2.0 mm aluminium sheet / 4 mm ACP (Aluminum composite Panel); size 90x30 cms. rectangular as per design of IRC-67-2012. Pre treated with phosphating 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.	3666.3	Nos.	65,993.40

It. No.	Quantities estimated out or less	Item of Work	Estimated rate	Unit	Total Amount according to estimated quantities
			In Figure		
1	2	3	4	6	7
25	405.0	Supplying and fixing reinforced concrete heavy duty non-pressure pipes with collars for culverts carrying heavy traffic as per IS 458-1991 specifications including setting the pipes in C.M. 1:2 watering and laying (to level or slopes) of class NP3 of following internal daimeters.(v) 900mm dia.	3469.3	Rmt	14,05,050.30
26	526.1	Demolition of Brick work and stone masonry including stacking of serviceable materilas and disposal of unserviceable materials with all lead and lift.(ii) In Cement Mortar.	562.9	Cum	2,96,162.08
27	1498.2	Excavation for foundation in hard murrum and boulders and very stiff or sticky, clays and other similar strata including shoring and strutting and dewatering as necessary and disposing of the excavated stuff as directed .	611.3	Cum	9,15,897.12
28	775.1	Providing and laying plain cement concrete grade M-20 PCC protection wall, with graded machine mixed stone aggregate from 6 mm to 40 mm including tamping, vibrating, leveling and curing complete with all formwork, dewatering wherever required including all materials, labours, plants, machineries & tools, all leads and lifts, etc. complete as per specification.	4142.2	Cum	32,10,636.35
29	400.0	Providing parapet of ordinary cement concrete M-200 as per detailed drawings with necessary reinforcement including, shuttering, laying vibrating and finishing to line and level complete.(ii) Cast in situ	1062.5	Rmt	4,24,996.12
30	4.0	Providing MS Flood guage on top of the bridge including supply, fixing and painting complete as directed by engineer in charge	1877.5	Nos.	7,510.15
31	8587.0	Excavation in large boulders and soft rock by welding including shoring, strutting and dewatering as necessary and disposing of the excavated stuff as directed.	716.6	Cum	61,53,088.78
32	561.4	Providing and laying plain cement concrete in levelling course complete as per drawings and technical specifications as per sections 1500, 1700 and 2100 of MORTH. (M-10)	3345.6	Cum	18,78,113.74
33	73.2	Providing and applying Acrylic paint to unplastered concrete surface after cleaning the surface of dirt, dust, oil, grease, efflorescence and applying paint @ of 1 litre for 2 sqm.	115.4	Sqm	8,444.37
34	935.6	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 50Mt.lead.	215.6	Cum	2,01,723.29
35	823.7	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification (200mm thk in two layers) including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density.- Grading 2, Using Screening Crushable type such as Moorum or Gravel.	1539.5	Cum	12,68,097.50
36	692.5	Providing and fixing "W" type metal beam crash safety barrier comprising of single row 3 mm thick galvenized sheet to be fixed on ISMC 150 (150 mm x 75 mm x 5.4 mm) series channel vertical post to be spaced 2.0 mtr c/c to be kept 1.65 mtr height including necessary foundation, fittirs with bolts, painting and required all process as per specification and as per drawing.	3356.5	Rmt	23,24,214.22

It. No.	Quantities estimated out or less	Item of Work	Estimated rate	Unit	Total Amount according to estimated quantities
			In Figure		
1	2	3	4	6	7
37	6.0	Diversion sing board :-Providing & Fixing sign boards made out of 2mm aluminium sheet, size 180 x 60 cms. rectangle as per the attached drawing pre treated with phospheting process & acid etching. coated with one coat of epoxy priemr and two coats of best quality epoxy paint reflectorised with retro reflective sheeting as per latest M.O.S.T. Specifications; Letters and numerals should be as per IRC-30-1968,3.1m long (2nos) stand post and frame fabricated from iron angle of 35x35x3mm, 50x50x5mm painted with best quality epoxy coatings in blak and white bends. The fixing at site shall be in 1:2:4 CC block of size 45 x 45x 60cms for each leg, including excavation curing etc. complete under the supervision of engineer in charge.(A) Engineer Grade(VR)	6798.9	Nos.	40,793.52
38	50.1	Granular sub base Grade 1 with black trap crushed stone well graded material (Table-400.1) by mix in place method construction of granular sub base by providing black trap crushed stone well 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 technical specification clause-401) for Gr-1 Material	1116.0	Cum	55,913.52
39	30.0	Informatory Signs :-Providing and fixing Work in Progress sign boards made out of 2mm aluminium sheet; size 80 x 60cms. rectangle as per the design of IRC-67-1977 pre treated with phospheting process & acid teching; coated with one coat of epoxyprimer and two coats of best qualityepoxy paint; reflectorised with retro reflective sheeting as per latest M.O.S.T. Specifications; 3.1m long stand postand frame fabricated from suitable sizeiron angle of 35 x 35 x 3mm75x75x6mm as required; painted with best qualityepoxy coatings in black and whitebends. the details of symbol for eachboard shall details of symbol for eachboard shall be as per the instruction ofengineer in charge. The fixing at site shall be in 1:2:4 CC block of size 45 x45 x 60cms. for each leg. including excavation curing tec. complete under the supervision of engineer in charge.(A) Engineer Grade(VR)	3856.9	Nos.	1,15,707.00
40	688.5	Providing and laying rubble for soling (each stone weighting not less than 40Kg.) including and packing and filing in the interestices with quarry-spalls. For rublle soling work under pcc.	1083.8	Cum	7,46,246.00
41	120.0	Type - A, "W" : Metal Beam Crash Barrier (Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 70 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.1 m below ground/road level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per clause 811)	3254.2	Rmt	3,90,507.86
42	34.5	Providing and casting in situ ordinary cement concrete M-150 mix below CC pavement including laying ramming, vibrating and curing complete.	3772.2	Cum	1,30,140.21
43	224.8	Providing and laying Filter material underneath pitching in slopes 150mm thick complete as per drawing and Technical specification.	309.8	Sqm	69,649.68

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			In Figure		
1	2	3	4	6	7
44	570.0	Diversion: Providing temporary diversion suitable for traffic during the construction period of the C.D. Structure work by levelling existing ground and constructiong suitable compacted embankment, road surface with providing, laying & consolidation of 200 mm WBM in layers on carriage width with safety measures like sign board, guard stone, necessary R.C.C. pipes with suitable slope protection & maintain for motorable road throughout construction period etc. and also dismantle diversion after completion of work etc. complete as per instrucion of Engineer-in-Charge. (R.A)	2498.5	Rmt	14,24,120.20
45	97.7	Providing and filling in foundation with ordinary cement concrete M-10 mix and providing necessary vertical pin headers incl. Formwork, vibrating, ramming and curing complete.	3345.6	Cum	3,26,863.17
46	480.7	Providing and casting in situ. controlled Cement Conrete M-25 for R.C.C. Raft and cut-off walls including necessary shuttering laying, vibrating ramming of curing complete (Item No.27014+ R.A.)	4697.3	Cum	22,57,968.08
47	474.0	Providing and casting in situ Controlled cement concrete M- 25 for R.C.C. solid slab including centering, scaffolding curing and finishing complete. (SOR / Item No.27075-A) +RA)	5256.1	Cum	24,91,372.44
48	196.8	Providing and casting in situ Controlled cement concrete M-25 for approach slab including formwork curing and finishing omplete.(SOR / Item No 27103-BA + R.A.)	5235.7	Cum	10,30,379.86
49	21.3	Providing and casting in situ controlled cement concrete M-25 for Kerbs/Kerb blocks including form work,curing and finishing complete.(SOR / item No. 27093 BA+ R.A.))	4948.6	Cum	1,05,404.97
50	1071.0	Providing & casting in situ ordinary cement concrete M-20 mix and providing necessary pin headers including shuttering, scaffolding, laying, vibrating, curing and finishing complete without V-Groves.(A) Height from 0.0 M. to 5.0 M. (SOR / Item - 27053AA + RA)	4291.7	Cum	45,96,389.28
51	9.4	Providing and laying in position FE 500/500 D TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following.(A) Piers (B) Abutments (C) R.C.C. Return / Walls/ Caps/ Copings etc (SOR / Item No.27109)	73858.7	MT	6,95,010.27
52	19.3	Providing and placing in position FE 500D TMT bar reinforcement including testing of coating at plant and all taxes including cutting, bending, hooking, and tying complete as per detailed drawing.(A) Solid Slab. / App slab / Wearing Coat (SOR / Item No.27113)	73243.0	MT	14,12,125.23
53	160.0	Providing 20 mmThick Pre-moulded asphalt filler joints as per drawings (R.A.)	769.6	Sqm	1,23,139.20
54	112.0	Provding P.V.C. 100 mm diameter water spouts including necessary iron gratings as per drawings. (SOR Item No. 27100-A)	159.4	Nos.	17,848.32
55	1120.0	Providing and laying weep hole in Aburtments, and returns by using PVC pipe of 100 mm including fixing in proper grade and jointing the complete as per detailed specification(SOR Item No.27050-A + R.A.)	228.3	Nos.	2,55,651.20
56	276.0	Providing & Fixing of Precast R.C.C. Railing of M-30 Grade Concrete having 2 - tire (Row) of Hand Rail dimension as shown in detail drawing & Vertical Post such as c/c pacing between vertical posts not to exceed 1.625 m including necessary TMT steel, Form Work, Painting with Weatherproof Paint, Supplying of all material, Labour etc. complete as per instruction of Engineer-in-Charge. (Rate Aalysis)	2142.4	Rmt	5,91,305.51

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			In Figure		
1	2	3	4	6	7
57	1740.0	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. (SOR Item No.4006)	136.9	Cum	2,38,240.80
58	497.5	Dismantalling the existing structure including removing and stacking the dismantled materials as and where directed RCC work (SOR / Item No.27001-A)	930.4	Cum	4,62,849.13
59	391.0	Demolition and disposal of unserviceable materials with all lead and lift.(ii) Unreinforced concrete. (SOR Item No.20001B)	623.0	Cum	2,43,596.91
60	60.0	Removing all types of Hume pipes and stacking within a lead of 1000 m including Earthwork and Dismantling of Masonry Works as per Technical Specification Clause 202. (Rate Analysis) (B)Above 600 mm to 900 mm dia Hume pipe	419.0	Rmt	25,140.60
61	1204.1	Providing & casting in situ ordinary cement concrete M-15 mix and providing necessary pin headers including shuttering, scaffolding, laying, vibrating, curing and finishing complete without V-Groves.(A) Height from 0.0 M. to 5.0 M. (SOR/ Item - 27053-AA + R.A.)	3921.6	Cum	47,22,046.72
62	20.0	Hazard Marker Sign :-Providing and fixing sing boards made out of 2mm aluminium sheet; size 90 x 30cms. rectangle as as per the design/drawing attached (IRC) pretreated with phospheting process & acid etching; coated 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; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm & 50 x 50 x 5mm painted with best quality epoxy coatings The fixing at site shall be in 1:2:4 CC block of size 45x45x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.(A) Engineer Grade(VR) (SOR I. No. 26102A)	2423.7	Nos.	48,474.80
63	20.0	Cautionary Warning Sign :-Providing and fixing sing boards made out of 2mm aluminium sheet; size 90 x 90 x 90 cms. equilateral triangle as per design of IRC-67-1977. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with retro reflectivesheeting as per latest M.O.S.T.Specifications; 3.1m long stand postand frame fabricated from suitable sizeiron angle of 35 x 35 x 3mm, 75 x 75 x 6mm as required; painted with bestquality epoxy coatings in black andwhite 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) Engineer Grade(VR){ SOR Item No.26092-A)	3808.7	Nos.	76,173.00
64	887.8	Dismantalling the existing structure including removing and stacking the dismantled materials as and where directed Rubble masonry (SOR Item No.27001-B)	409.2	Cum	3,63,305.52
65	159.3	Excavation in hard rock by dry-wet blasting and chiselling including dewatering and chiselling incl uding dewatering preparing foundation base by proper benching and steppingand disposing of the excavated stuff as directed. (B) Blasting prohibited. (SOR/ Item -27010B)	1675.3	Cum	2,66,876.88

It. No.	Quantities estimated out or less	Item of Work	Estimated rate	Unit	Total Amount according to estimated quantities
			In Figure		
1	2	3	4	6	7
66	72.0	Providing and fixing Mild steel dowel bars of minium 32MM 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 (SOR/ Item - 27032)	450.1	Rmt	32,405.04
67	444.3	Providing and casting - in - situ controlled cement concrete DMC - 20 for mass concrete for foundation below Piers, Abutments & Square Return including centering shuttering, scaffolding where necessary, laying vibrating, curing and finishing complete as per specification (R.A.)	5198.6	Cum	23,09,729.09
68	40.1	Providing and casting in situ controlled cement concrete M-25 for R.C.C.workin pier cap,abutment cap and dirt wall including controlled cement concrete M-30 bed blocks or pedestals of required size below bearings as per detailed drawings, centering, shuttering, scaffolding, wherever necessary, laying vibating, curing and finishing complete. (SOR Item -27066-BA+	5384.3	Cum	2,15,909.23
69	24.0	Providing and fixing in position Mild steel dowel bars in pier cap or abutment caps for ancorage in fixed end as per detailed drawings including cutting bending and welding complete.	341.3	Nos.	8,190.96
70	24.0	Providing and fixing in position Mild steel dowel bars in pier cap or abutment caps for ancorage in free end as per detailed drawings including cutting bending and welding complete.	399.7	Nos.	9,592.80
71	116.1	Providing 12 mm. Thick Pre-moulded asphalt filler joints as per drawings (SOR Item No.27087)	703.5	Sqm	81,679.83
72	82.0	Providing temporary diversion suitable for traffic during the construction period of the Bridge/Box Structure work by levelling existing ground and constructiong suitable compacted embankment, alweather road surface	2298.0	Rmt	1,88,432.67
73	188.9	Supplying & Laying of Extruded Polypropylene Geogrid for Base/Sub Base reinforcement of having minimum tensile strength 30 KN/m in the longitudinal & transverse direction and confirming MORTH specification, laid in layers below approach slab with all necessary tools to complete the work as per drawing. (R.A.)	165.6	Sqm	31,289.40
74	72.0	Earthwork for Embankment including breaking clods,dressing etc.complete with all lead and lift. (Excluding watering & consolidation)(C) From Borrow Area within 3.00 K.M. Lead. (S.O.R. / It. No..26001-EA)	169.3	Cum	12,188.16
75	1792.0	Rolling and Watering of earth work in layers with vibratory roller including filling in depressions which occur during the process as directed. (SOR / It. Code 26002A+26003)	23.0	Cum	41,144.32
76	648.4	Providing and filling in foundation with ordinary cement concrete M-15 mix and providing necessary vertical pin headers incl. Formwork, vibrating, ramming and curing complete. (SOR/ Item - 27012-A + R.A.)	3715.6	Cum	24,09,208.01
77	139.0	Providing and placing in position FE 550/550 D CRS TMT bar reinforcement including testing of coating at plant and all taxes including cutting, bending, hooking, and tying complete as per detailed drawing.(A) Solid Slab. / App slab / Wearing Coat (SOR / Item No.27113 + Rs. 3500 for Fe 550D CRS)	76778.0	MT	1,06,75,214.51
78	1720.0	Earthwork for Embankment including breaking clods,dressing etc.complete with all lead and lift. (Excluding watering & consolidation) (E) From Borrow Area within 5.00 Km. lead. (SOR It. No..26001-A + R.A.)	210.7	Cum	3,62,384.48

It. No.	Quantities estimated out or less	Item of Work	Estimated rate	Unit	Total Amount according to estimated quantities
			In Figure		
1	2	3	4	6	7
79	3519.0	Providing and applying one coat Epoxy Phenolic primer of DFT 50 micron and two coats of Polyurethane (aliphatic) epoxy paint-75 micron DFT each or any other equivalent epoxy coating system to all concrete surfaces exposed to atmosphere in Substructure & Super Structure as directed by Engineer and as per specification. (R.A.)	233.3	Sqm	8,21,017.89
80	1592.1	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid conforming to MORT&H specification for base/sub-base reinforcement having minimum tensile strength 30kN/m in the longitudinal and transverse direction, with 10.5kN/m and 21kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening. (N.H. Rajkot SOR Item No.7.5 (iii))	253.5	Sqm	4,03,613.27
81	137.0	Road marking with hot applied thermoplastic paints (Yellow Colour No. 356 on C.C. Road & White Colour on Asphalt Surfaces) with reflectorising glass beads on bitumin surface providing and laying a hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250gms per sqm area, thickness of 2.5mm is excluding of surface applied glass beds as per IRC:35-2015. The finished surface to be level, uniform and free from streaks and holes. zebra patta /bump patta lane/center line/ edge line/cut patta. The white color marking should provide liminance coefficinet on cemend road shalll be min 130 mcd/m2/lux and Asphalt road shall be min 100 mcd/m2/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 the Retro reflectivity should be two years. (SOR I. No. 26161)	367.7	Nos.	50,377.64
82	164.0	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 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 b a minimum value of 500 Kg. 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 manufacturers recommendation and The color of the marker should be as per the IRC 35-2015 and as directed by Engineerin- charge. (SOR I. No. 26162A)	326.2	Nos.	53,501.72
83	232.0	Excavation for foundation upto 1.5 m. depth including sorting out and stacking of useful materials and disposing of the excavated stuff upto 50 metre lead. Dense or hard soil (SOR Item No.26075-B)	253.9	Cum	58,900.16

It. No.	Quantities estimated out or less	Item of Work	Estimated rate	Unit	Total Amount according to estimated quantities
			In Figure		
1	2	3	4	6	7
84	30.0	Supplying and fixing reinforced concrete heavy duty non-pressure pipes with collars for culverts carrying heavy traffic as per IS 458-1991 specifications including setting the pipes in C.M. 1:2 watering and laying (to level or slopes) of class NP3 of following internal diameters.(vii) 1200mm dia. with lead (SOR Item No.26089GA+R.A.)	5560.0	Rmt	1,66,800.30
85	495.0	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. (SOR Item No.4006)	136.9	Cum	67,775.40
86	80.4	Providing and casting in situ ordinary cement concrete M-20 for various thickness wearing coat laid as directed including tamping, vibrating, finishing, curing and filling in joints with bitumen complete. (Item No.27091AA)	4338.7	Cum	3,48,828.26
87	6.0	Providing and fixing Flood Gauge Post mark of "C" Channle angle size 100mm X 50mm X 5 mm Thick (In head Wall 0.50 m and 1.50 m Out side wih Painting and letterning with radium color as direct) (RA)	1748.2	Nos.	10,488.90
88	100.0	Diversion: Providing temporary diversion suitable for traffic during the construction period of the C.D. Structure work by levelling existing ground and constructing suitable compacted embankment, road surface with providing, laying & consolidation of 100 mm WBM in layers in carriage width with safety measures like sign board, guard stone & maintain for motorable road throughout construction period etc. and also dismantle diversion after completion of work etc. complete as per instruction of Engineer-in-Charge. (R.A)	993.8	Rmt	99,384.00
89	48.4	Provision of an Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with RCC M-30 Grade conforming to MoRTH Specification and as per details given IRC-5 including dowel bars 25 mm dia, 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/94-DO III dated 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified (Rate Analysis)	5255.0	Rmt	2,54,238.35
90	16.0	Route marker sign :- Providing & fixing sign boards made out of 2mm aluminium sheet, size 60x45cms. rectangle plus 30x25cms additional plate as per the attached drawing (IRC) pre treated with phosphating process & acid etching. coated with one coat of epoxy primer and two coats of best quality epoxy paint reflectorised with retro sheeting as per latest M.O.S.T. Specifications ; 3.1m long stand post and frame fabricated from iron angle of 35 x 35 x 3mm , 75x75x6mm as required, painted with best quality epoxy coating in black and white bends The details of 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 block of size 45 x 45x 60cms. for each leg, including excavation curing etc. complete under the supervision of engineer in charge.(A) Engineer Grade (SOR I.No. 26108A)	3744.7	Nos.	59,914.88
91	42.0	Providing and fixing Precast R.C.C. Grade M-30 Guard Stone/Stud 15 cm dia at top, 30 cm at bottom and 90 cm high R.C.C. Guard Stone as per standard design, including fixing, painting, sticking radium patta etc. complete as per instruction of engineer-in-charge (Rate Aalysis)	860.5	Nos.	36,141.84

It. No.	Quantities estimated out or less	Item of Work	Estimated rate	Unit	Total Amount according to estimated quantities
			In Figure		
1	2	3	4	6	7
92	373.6	Providing and casting -in - situ controlled cement concrete M-20 for R.C.C. work in Pier, Abutment, Return & Riding Return as per drawings including centering shuttering, scaffolding where necessary, laying vibrating, curing and finishing complete.(A) Height from 0.0 to 5.0 M. (1) Piers (2) Abutment (3) RCC return (SOR Item No. 27064 AA + R.A.)	5198.6	Cum	19,42,189.49
93	285.0	Taking credit for NP3 Pipes	-1809.4	Rmt	-5,15,690.18
94	11.0	Credit for solid slab	-46994.3	MT	-5,18,112.05
95	45.0	Taking credit for NP4 Pipes (Considering 70% basic rate for 1.2m dia NP4 pipes)	-3666.8	Rmt	-1,65,006.59
96	1.0	Deduct Credit of 70% useful material of Diversion Rs.	-1128787.0		-11,28,787.01
97	1.0	Credit	-18144.0		-18,144.00
In Word Twenty one crore seventy three lakh sixty nine thousand three hundred fifty six only.					₹ 21,73,69,356
I/We am/are willing to carry out the work at _____% above/below the (percentage should be written in figure and words only) Estimated rates as mentioned above,amount of my/our tender works out as under.					
Estimated Amount			Amount		
Put to Tender: RS.			Put to Tender: RS.		
Deduct:					

It. No.	Quantities estimated out or less	Item of Work	Estimated rate	Unit	Total Amount according to estimated quantities
			In Figure		
1	2	3	4	6	7
Note: <p>1 The Contractor shall exhibit a board with detailed specification and details of work as directed by the Engineer-In-Charge for which no extra payment shall be made.</p> <p>2 The labour cess will be deducted as per prevailing rules i.e. 1% of the work done.</p> <p>3 GST and Income tax TDS will be deducted at a source while making payments of bills</p> <p>4 In all R.C.C. Items in Rate Analysis Standard Cement Consumption has been taken as per Govt. G.R.: PRC-10/2017 Cement Consumption/16/C Date:11/05/2017 as stated in S.O.R. therefore in R.C.C. items where there is a change as per actual mix design the cost of difference of cement consumption have been deducted from the rate of original item at the rate of input rate mentioned in all the tender.</p> <p>5 The amount of credit shall be recovered from 3 R.A bill.</p>					
Signature of Contractor			Deputy Executive Enrtive Engineer (R & B) (P) Sub Di: B) (P) Division Morbi Morbi		