

# RAJKOT MUNICIPAL CORPORATION

e - Tender No. RMC/ENGG/WZ/24-25/



Bid Documents For  
**CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2<sup>nd</sup> RING ROAD & RAIYA CHOWK.(RE-TENDER)**

Volume-III

Form of Bid and B.O.Q.



### Milestone Dates for e-tendering is as under

1. Downloading of e-Tender documents	22-11-2024 To 07-12-2024 upto 18.00 Hrs.
2. Pre-bid Meeting in the O/o Addl. City Engineer at <b>WEST ZONE</b>	28-11-2024 at 11:30 Hrs
3. Online submission of e - Tender	07-12-2024 upto 18.00 Hrs.
4. Physical Submission of EMD, Tender fee and <del>other documents required as per Financial and Experience criteria</del> by Regd. Post. A.D. / Speed Post ONLY	16-12-2024 upto 18.00 Hrs.
5. Opening of Online tender	17/12/2024 at 11.00 Hours onwards
6. Verification of submitted documents (EMD, e - Tender fee, etc.)	18/12/2024 at 11.00 to 13.00 Hours
7. Agency to remain present in person along with original documents for verification	20/12/2024 at 11.00 to 13.00 Hours
8. Opening of Price Bid (If possible)	23/12/2024 at 11.00 Hours onwards
9. Bid Validity	120 Days
For further details, pre-qualification criteria etc. visit <a href="http://www.rmc.nprocure.com">www.rmc.nprocure.com</a>	

2024-25

CITY ENGINEER  
RAJKOT MUNICIPAL CORPORATION  
WEST ZONE OFFICE  
SHRI HARISINHJI GOHIL BHAVAN,  
BEHIND BIG BAZAAR, 150' RING ROAD,  
RAJKOT - 360005, GUJARAT

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
1	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(A) By manual means in area of light jungle	0.23	Hectare	34451.77	7751.65
2	Diversion of water course, providing cofferdam and bund or island as may be necessary for foundation and maintaining the same for the period as may be necessary. Pier Nos.	5.00	Nos.	30000.00	150000.00
3	Marking out the center line of the Bridge and various other component structures and complete lining out and leveling with theodolite, levels,including constructing necessary masonry pillars for lines and levels and establishing necessary bench marks etc. complete as directed.	1.00	L.S	50000.00	50000.00
4	Cutting of Trees, including Cutting of Trunks, Branches and Removal (Removal of stumps, roots, stacking of serviceable material with all lifts and up to a lead of 1000 metres and earth filling in the depression/pit.)	20.00	Nos.	1044.00	20880.00
5	Excavation of Foundation in Soft Murrum, Soil or Sand from 0.0 mtr. to 1.50 mtr depth including dewatering with lifting and laying in RMC limit as instructed.	2422.00	Cu.m.	133.00	322125.77
6	Excavation of Foundation in Soft Rock from 1.51 mtr. to 3.0 mtr depth including dewatering with lifting and laying in RMC limit as instructed.	3250.04	Cu.m.	343.00	1114765.09
7	Excavation of Foundation in Hard Rock with Breaker / Blasting /Gann from 3.01 mtr. to 4.50 mtr depth including dewatering with lifting and laying in RMC limit as instructed	4276.86	Cu.m.	420.00	1796281.20
8	Providing and filling PCC in foundation with ordinary cement concrete M15 grade including formwork, vibrating, ramming, compaction, leveling, curing, etc. complete.	557.48	Cu.m.	3616.33	2016035.26
9	Providing and casting in-situ Reinforced Cement Concrete M35 grade controlled cement concrete in pier, abutment & retaining walls foundations (piers, abutments and retaining wall shall be cast in single lift or as per direction of Engineer in charge) etc. using 6mm to 20mm machine crushed well graded stone aggregate, sand of approved quality, OPC53 grade cement etc. complete.	1341.51	Cu.m.	6020.00	8075889.68
10	Providing and filling trenches of Labour charges - Excavator in rocky strata with ordinary cement concrete M-15	7774.29	Cu.m.	3606.23	28035894.38
11	Construction of dry lean cement concrete trench 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 determined during trial length 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 with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing	2000.00	Cu.m.	2766.00	5532000.00

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
12 (A).	Providing and casting in-situ Reinforced Cement Concrete M35 grade controlled cement concrete in pier, abutment, returns & retaining walls (piers, abutments, returns and retaining wall shall be cast in single lift or as per direction of Engineer in charge) etc. using 6mm to 20mm machine crushed well graded stone aggregate, sand of approved quality, OPC53 grade cement etc. complete. The rate is inclusive of all materials, including necessary mixing in fully automatic batch mix plant, transport, curing, vibrating, placing in position, scaffolding, staging, 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 F3 type exposed concrete finish and form mark. Any honeycombing / Undulation found shall be rectify to match F3 class finish. Note:- Rates in items shall include cost of providing grooves, chamfers, moulding, cut-out etc. in formwork. The work will include placing in position of necessary fixtures, sleeves for various purposes, etc. complete as per drawings, specifications and as directed by the Engineer in charge. The rate shall also include preparation of construction joints as per specifications and provide approved wire mesh/weld mesh at such location as approved by the Engineer-in-charge or as shown in drawings. (Height from 0 to 5m)	1024.54	Cu.m.	6900.00	7069353.78
12 (C)	Height from 5m to 10m	70.46	Cu.m.	6900.00	486139.50
13	Providing and casting in-situ Reinforced Cement Concrete M35 grade controlled cement concrete in pier cap, abutment cap & dirt wall using 6mm to 20mm machine crushed well graded stone aggregate, sand of approved quality, OPC53 grade cement etc. complete. The rate is inclusive of all materials, including necessary mixing in fully automatic batch mix plant, transport, curing, vibrating, placing in position, scaffolding, staging, 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 F3 type exposed concrete finish and form mark. Any honeycombing / Undulation found shall be rectify to match F3 class finish. Note:- Rates in items shall include cost of providing grooves, chamfers, moulding, cut-out etc. in formwork. The work will include placing in position of necessary fixtures, sleeves for various purposes, etc. complete as per drawings, specifications and as directed by the Engineer in charge. The rate shall also include preparation of construction joints as per specifications and provide approved wire mesh/weld mesh at such location as approved by the Engineer-in-charge or as shown in drawings.	338.90	Cu.m.	6600.00	2236743.17
14	Providing Weep holes in RCC abutment and retaining wall with 110mm dia PVC pipe 6 kgf / Sq.cm. and non-corrodible grating and geotextile, extending through the full width of the structure with slope of 1V:20H etc. complete as per drawing and technical specification.	981.71	Rmt.	207.63	203832.53
15	Providing and fixing metal expansion joints as per drawings. Details of expansion joint 50 x 50 x 6mm size two IS and 100 x 6mm MS plate with 6 x 20 x 25mm long hold fast @ 50 cm / cc on both sides of expansion joints.	262.80	R.m.	1994.01	524025.83

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
16	Providing and laying Tar Paper below solid slab of approved and as directed by engineer in charge.	274.08	Sqm.	42.50	11648.40
17	Providing flood gauge marks on substructure as per design including painting complete.	14.40	Sq.m.	157.50	2268.00
18	Providing and laying filter media 600mm thick as directed at the back of abutments, returns and wing walls as per detailed specifications.	653.47	Sq.m.	1168.65	763681.92
19	Providing and casting in-situ Reinforced Cement Concrete M35 grade controlled cement concrete in Solid Slab 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 as approved by client ,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, 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 F3 type exposed concrete finish and form mark. Any honeycombing / Undulation found shall be rectify to match F3 class finish. RCC Solid Slab	1475.00	Cu.m.	6700.00	9882500.00
20	Providing and casting in-situ Reinforced Cement Concrete M 30 grade with 20mm down coarse aggregate at any level including shuttering, mixing with batching plant, placing in position, consolidating with mechanical vibrators, curing, deshuttering carefully, making good the damages, fixing embedment, inserts, pockets, wherever necessary as directed for Approach Slab including all leads and lifts etc. complete as per specification and drawing.	384.98	Cu.m.	6500.00	2502337.50
21 (A)	Providing and placing in position FE 500D bar reinforcement for following items including cutting bending hooking and tying complete as per detailed drawing.For well :- curb, staining, cap and RCC Raft.	92.71	Tonne	65000.00	6025983.83
21 (B)	Providing and laying in position FE 500D 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. Returns (D) Retaining wall	89.98	Tonne	65000.00	5848735.97
21 (C)	Providing and laying in position FE 500D TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed for the following. (A) Abutment cap & Dirt wall. (B) Pier Cap.	37.28	Tonne	65000.00	2423138.43
21 (D)	Providing and placing in position FE 500D TMT bar reinforcement including cutting, bending, hooking, and tying complete as per detailed drawing.(A) Solid Slab. (B) Crash Barrier	100.30	Tonne	65000.00	6519500.00
21 (E)	Providing and fixing in position FE 500D TMT bar reinforcement including cutting, bending and tying complete as per detailed drawings. (A) R.C.C. Kerb. (B) R.C.C. Footpath.(C) R.C.C. Approach slab (D) Median.	38.50	Tonne	65000.00	2502337.50
22	Providing G.I. 100mm diameter water spouts including necessary iron gratings as per drawings.	22.80	Each	530.72	12100.42
23	Providing Pylon consist of cast-in-situ concrete of M30 grade exposed finish as per drawing and as directed by engineer incharge. Rate includes providing required shuttering and form work but excluding stone slab & carving. (Reinforcement shall be paid in respective item.)	2.00	Each	6750.00	13500.00

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
24	Providing and fixing marble slab including transporting ,engraving and painting all complete. (ii) Size 60cm x 60cm x 40mm	2.00	Each	867.26	1734.52
25	Material and Labour for applying two or more coats of 100 % Premium Acrylic emulsion paint having VOC less than 50 gm/litre and UV resistance as per IS:15489:2004, Alkali & Fungal resistance, Dirt Resistance Exterior Paint oof required shade (Company Depot Tinted) with Silicon Additives @ 1.43 litre / Sqm over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm over new surfaces.	13530.94	Sqm.	197.00	2665594.85
26	Providing and fixing mild steel dowel bars of minimum 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.	1080.00	Rmt.	443.83	479336.40
27	Providing and fixing in position Mild steel dowel bars in pier caps or abutment caps for anchorage in fixed end as per detailed drawings including cutting, bending and welding complete.	420.00	nos.	336.51	141334.20
28	Providing and fixing in position Mild steel dowel bars in pier caps or abutments caps for anchorage in free end as per detailed drawing including cutting, bending and welding complete.	420.00	nos.	392.35	164787.00
29	Providing, Designing , Supplying and Installation of Extruded Bi-Axial Polypropylene 30kN Geogrid including all Labours & Etc. Complete as directed by Engineer-In-Charge	3849.30	Sqm	106.20	408795.66
30	Providing and filling sand behind abutments and between returns in layers as directed	3731.63	Cum	475.65	1774949.14
31	Providing & laying dry Stone pitching of 22.5cm thick on slope including hand packing, filling joints as directed by the engineer incharge for all lead & lift.	3100.00	Sqm	1116.00	3459600.00
32	Providing & filling in panels for rubble pitching with ordinary cement concrete M15 grade and providing necessary pin headers including formwork vibrating, ramming, compaction levelling curing etc. complete.	150.00	Cum	3616.33	542449.50
33	Providing & laying dry Stone pitching protect Toe Wall (M-15)	138.36	Cum	3616.33	500351.08
34	Providing and laying filter media 300mm thick as directed at the back of Stone Pitching as per detailed specifications.	940.50	Sqm	914.63	860207.88
35	Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects. (VG-40)	192.88	MT	3841.00	740859.76

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
36	Providing and laying micro surfacing course comprising of dry fine aggregate conforming to Type-III grading of specification, polymer modified cationic slow setting bitumen emulsion (Having 60% binder content 3.6% polymer), ordinary Portland cement, chemical additives, and water in the following proportion. (i) Fine aggregate conforming to type-III grading @ 12 kg. per sqm. of road surface coverage. (ii) Bitumen emulsion @ 13% by weight of fine aggregate. (iii) Cement @ 1.5 % by weight of the aggregate. (iv) Additive @ 2% by weight of fine aggregate. (Note: (1) This item includes all the cost including labours and machineries of bitumen emulsion, ordinary Portland cement, chemical additives, aggregates, and water.	1824.00	SQm	197.35	359966.40
37	Fabricating, supply and erecting in position Standard Structural steel sections conforming to IS 2062 for railing, gates of underspace or other works using ISMB, ISA, ISMC, MS plate, flat, square bars, pipe, square pipe ,etc. including welding, cutting, wastage, etc. complete. The rate is inclusive of welding road, supply & fixing of correct size nut, bolts, washers, paint, with all contractor's materials, labour, tools & plants, in bolted / welded construction as directed by Engineer-in-Charge. Anticorrosive paint must be applied before applied any paint. The rate shall inclusive of providing and applying Epoxy Coating of approved shade, brand and manufacture on new structural steel work with one coat of 30 micron (DFT) of Epilux 4 Zinc Rich primer of Berger Paint India Ltd or equivalent as primer and Two coat each of 35 micron (DFT) of Epilux 84 High Gloss CR enamel of Berger Paint India Ltd or equivalent at all levels. (Total DFT is 30+35+35=100 microns) The waste cut pieces shall not be included in the paying quantity.	1374.00	Quintal	3811.02	5236341.48
38	Providing & laying approved make Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II )with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable and back filling the same to make ground as per original.	1851.10	Rmt	111.00	205472.10
39	Providing and laying in position of uniform thickness, 2mm thick polymer water proofing membrane over deck. The water proofing membrane shall have properties for water premeability, adhesion to concrete, moisture permeability etc. as per ASTM & DIN standards. This item is including all materials, labour, equipment, transportation, cleaning deck surface , including all leads and lifts etc. complete as per specifications and as directed by Engineer.	2496.60	SQm	300.00	748980.00
40	Type A W Metal Beam Crash Barrier ( Providing & erecting a "W" metal beam crash barrier comprising of 3mm thick corrugated sheet metal beam rail , 70 cm above road ground level fixed on ISMC series channel vertical post 150 x 75 x x 5mm spaced 2m centre to centre, 1.8m high, 1.1m below gorund /road level all steel parts & fitments to be galvanized by hot dip process, all fittings to confirm to IS 1367 and IS 1364 metal beam rail to be fixed on the vertical post with a spacer of channel section 150x 75x 5mm 330 mm long complete as per clause 810)	600.00	Rmt	3474.00	2084400.00

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
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**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
41	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(D) By mechanical means in area of thorny jungle	0.54	Hectare	34451.77	18603.96
42	Scarifying gravelled macadam or bitumen macadam surface 6 cm to 10 cm.depth including stacking useful materials on road side and disposing off remaining stuff.	570.00	Sqm	39.23	22361.10
43	Earthwork for embankment including breaking clods, dressing with all lead and lift (excluding watering and consolidation)€ From Borrow area within 3.0 Km. lead	7953.00	Cum	228.03	1813522.59
44	Construction of Subgrade with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	2409.00	Cum	167.76	404133.84
45	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed material by tripper to site, laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.	636.00	Cum	1008.00	641088.00
46	Construction of Granular Sub Base (GSB) by providing coarse graded material of grading-I, 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 specification.	850.00	Cum	1215.00	1032750.00
47	Providing and applying Primer coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.60 kg/sqm on prepared surface of granular base including clearing of road surface using mechanical brooms.	2542.00	Sqm	58.00	147436.00
48	Providing and applying Tack coat with bitumen emulsion (rapid setting type) using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	2542.00	Sqm	10.00	25420.00
49	Dense Graded Bituminous Macadam (Grading II- 19 mm normal size)Providing and laying dense graded bituminous macadam with HMP using crushed aggregates of specified grading, premixed with 60/70 Grade bituminous binder @ 4.0 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification complete in all respects.(with Grading 2- 19 mm normal size)	861.00	MT	2989.00	2573529.00
50	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 determined during trial length 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 with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing	127.10	Cum	2766.00	351565.52

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

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<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
51	Cement Concrete Pavement M-40**Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement @ 390 kg per cum, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous opeproportion 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.	254.21	Cum	5699.00	1448714.30
52	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 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 manufacturers recommendation and The color of the marker should be as per the IRC 35-2015 and as directed by Engineer-in-charge.	172.00	Nos.	274.00	47128.00
53 (A)	Providing and fixing retro Reflective Hi Intensity Micro Prismatic Grade Board using 2mm Aluminum / 4mm ACP, angle iron 75 x 75 x 6mm. Descaling and degreasing the board as per requirement using epoxy reflective process by screen painting as directed etc. complete including transporting and fixing in C.C. 1:2:4 with necessary excavation curing etc. complete as per I.R.C. 67-2012 design. A warranty for 7 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. (B)Class B Type- retro reflective sheeting. 90 cm equilateral triangle and Hazard marker	8.00	Nos.	7521.00	60168.00
53 (b)	60 cm circular	6.00	Nos.	5684.00	34104.00
53 (c)	90 cm high octagon	2.00	Nos.	5725.00	11450.00
53 (D)	Facility information signs 800mm x 600mm	4.00	Nos.	7166.00	28664.00



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<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
54	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 @ 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 shall 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.	171.05	Sqm	422.00	72183.10
55	Providing and fixing pre-cast concrete kerb stone of gray cement based concrete block 30cm length,30cm height and 15cm thick of M200 grade concret as per approved design and including excavation for fixing in proper line and level,filling the joint with C:M 1:3 (1 cement:3fine sand) etc complete.	342.10	RMT	378.00	129313.80
56	Paver Block Laying Colored/ Grey 60mm thk, M-30 Grade Providing and laying shot blasted interlocking/ Noninterlocking, Grey/ Colored paver blocks of 60 mm thick M-30 grade machine made and blasting by automatic shot blasting machine and high density of as per approved sample of vyara, Alcock, winner conmet or equivalent for footpath, parking areas, service lanes and other areas as mentioned in the drawing. Including providing and laying 35 thick average bedding layer of coarse sand below paver block as per required grading and specification. Laid paver block shall be mechanically compacted. The work of the paving blocks shall be executed in line and level by skilled mason of flooring work only. It should be laid in such a way that the no cutting of the paver block to be necessary. If cutting of paver block shall be required, than cut by machine only and laying to be done by skilled flooring mason. The Finished surface of the Paver Block shall have Coarse Sand Texture Finish. Paver blocks shall be compacted and shall be re-laid if necessary. Actual laid area shall be measured and paid without any wastage.	1231.56	Sqm	677.37	834221.80
57	Providing and filling PCC in foundation with ordinary cement concrete M15 grade and providing necessary pin headers including formwork, vibrating, ramming, compaction, leveling, curing, etc. complete.(Below Kerb - Seperater Bycle and Footpath)	7.26	Cum	3562.71	25875.96
58	Providing and Casting in situ controlled Cement Concrete M-200 for R.C.C. Raft and cutt-off walls including necessary shuttering laying, vibrating, ramming and curing complete. (For Cylce Track in Approches)	72.63	Cum	4378.59	318016.99
59	Planting of Trees and their Maintenance for one Year (Planting of trees by the road side (Avenue trees) in 0.60 m dia holes, 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge mannure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for one year)A sample of work should be approved from Authority before execution of item.	11.00	Nos.	1282.40	14106.40

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
60	Grass: Providing, planting and developing grasses with the approved variety of plants including excavating the existing soil to a maximum depth of about 500 mm, removal of excavated earth to directed location, dressing the soil in proper slopes, filling excavated bed with approved soil mixture, planting approved quality grass, including weeding out and removal of foreign matter, watering etc complete. Height & spread to be measured above polybag top.A sample of work should be approved from Authority before execution of item.	513.15	Sqm	36.00	18473.40
61	Shrubs :Providing, planting and developing plants/ flower bed with under noted varieties of plants (both shade & sun loving), including excavating the soil to a depth of 450mm - 600mm of required area as per plant species, removal of excavated earth to directed location, filling the excavated bed with approved soil mixture, planting the approved variety plants, providing strong stack etc. as per specification and as directed complete in all respect, including watering and nurturing the plants. Height & spread to be measured above polybag top.A sample of work should be approved from Authority before execution of item.	0.34	Km	57948.00	19824.01
62	Pre cast Cylindrical Bollard Providing and fixing cylinder pre cast bollard with exposed/ fair finished made in M-30. Bollard is precast with cement concrete of M-30 grade by providing 4 no of 12 mm dia. tor steel by vibro compaction method using FRP/steel mould for achieve shuttering finish as directed and approved by EIC. Sample shall be approved. Approximate size of bollard is 1000mm height x 225 mm dia. Rate shall be inclusive of concrete, reinforcements as stated in the item description, necessary moulds, pouring, placing, compaction, necessary curing, all accessories required for fixing, with all taxes, transportation, loading and unloading charges. Additional reinforcement, if any shall be measured and paid for in the relevant tender item. The rate shall also include for erecting and fixing the pieces in position etc complete as per drawing. The rate shall also include the cost of excavation, base PCC M15 grade and finish good, curing etc complete as directed by engineer in charge.A sample of work should be approved from Authority before execution of item.	14.00	Nos.	1203.00	16842.00

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
63	<p>Supplying, unloading at site, shifting to site, assembling, leveling, grouting, erecting, Testing, &amp; Commissioning double compartmentalized Double door type section feeder pillar with IP 46 protection &amp; should be powder coated fabricated from 16 Gauge CRCA sheet &amp; folded channel totally enclosed cubical type with pad lock arrangement. The successful tenderer will have to prepare general arrangement with dimensions &amp; get it approve through Architect/ Consultant. All civil work including RCC platform for section pillar should be in scope of Electrical contractor complete in all respect as per detail drawing and directed by engineer incharge, Having Following Switchgears</p> <p>1) I/C - 4 P, 32A, 10KA, MCB, B Curve &amp; 4 P, 25A, 100mA, ELCB: 1 No.                  2) Busbar - 100 Amp Electrolytic Grade AL                  3) O/G – 32A, 10KA, MCB, B Curve - 6 Nos.                  4) MNX Series or equivalent power contactor, 2 NO + 2 NC, 40A, AC3 Rating, 4 Nos.                  5) 25A DP MCB, B curve 3 No                  6) 6-32A SP MCB B Curve 6 No.                  7) Astronomical Timer, Single Dial: 1 No                  8) Indication lamps, Selector Switch, Control MCB, Control Wiring etc, as required.                  Minimum Size : 900 x 750 x 350                  The SLD and GA to be approved with Consultant.</p>	1.00	Ea.	60581.25	60581.25
64	<p>Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected on foundation as per details given by manufacturer considering site requirement. (H) 9 Mtr. Long 70 mm Top X 155 mm bottom dia, 3 mm thickness with 260mmX260mmX16mm base plate, 4-M24 Bolts and 750mm long J-Bolt.</p>	18.00	Ea.	18348.00	330264.00
65	<p>Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected on foundation as per details given by manufacturer considering site requirement. (D) 6 Mtr. Long 70 mm Top X 135 mm bottom dia, 3 mm thickness with 200mmX200mmX12mm base plate, 4-M20 Bolts and 600mm long J-Bolt.</p>	18.00	Ea.	9570.00	172260.00

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
66	<p>Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 1Watt 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 company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD &lt; 10 %, CCT 3000 K to 5700K, Uniformity ratio &gt;0.45, LED driver efficiency &gt; 85 %.CREE / OSRAM / PHILIPS Lumileds / NICHIA make LED used for luminaire. ( fittings required LM-79 &amp; 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.) Luminaire should be pre wired and should be as per detail specification. Luminaire must be approved with Consultant (A) Street Light (IP-65), Surge protection -4KV integral and 10 kv non integral ,Light must have 440VAC line supply protection. It should withstand 48 hours for 440VAC line supply. above 90 to 120 watts. Cat III</p>	18.00	Ea.	7670.00	138060.00
67	<p>Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 1Watt 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 company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD &lt; 10 %, CCT 3000 K to 5700K, Uniformity ratio &gt;0.45, LED driver efficiency &gt; 85 %.CREE / OSRAM / PHILIPS Lumileds / NICHIA make LED used for luminaire. ( fittings required LM-79 &amp; 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.) Luminaire should be pre wired and should be as per detail specification. Luminaire must be approved with Consultant (A) Street Light (IP-65), Surge protection -4KV integral and 10 kv non integral ,Light must have 440VAC line supply protection. It should withstand 48 hours for 440VAC line supply. above 60 to 90 watts. Cat III</p>	36.00	Ea.	6981.00	251316.00
68	<p>Providing and fixing approved make Street Light Bracket. Made from CR sheet steel / Pipe. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/4759. with required fixing arrangement suitable to be erected on poles at different levels. (Bracket should be same make as pole)</p>	270.00	Ea.	106.00	28620.00

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

<b>Sr No.</b>	<b>Item of work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Estimated Rate in Rs.</b>	<b>Total Amount in Rs</b>
69	Concrete for Wall Pedestal for Electric Poles Providing and casting in-situ controlled cement concrete of M40 grade for RCC Wall Pedestal with 20 mm down coarse aggregate of the required size including formwork, shuttering, placing in position, consolidation with mechanical vibrators curing finishing, deshuttering carefully, marking good the damages, fixing embedment, inserts, pockets, wherever necessary as directed and as per drawing with F3 type exposed concrete finish and formwork as directed by Engineer - in -charge, etc. complete as per specification.	8.00	Cum	9000.00	72000.00
70	Steel for Wall Pedestal for Electric Poles Providing and placing in position (TMT Fe 500D grade) conforming to IS 1786 of all categories for foundation, sub structure, super structure including cutting, bending, hooking and tying with 18 gauge mild steel binding wires, supporting in position to ensure lines and levels during concreting, maintaining proper cover / spacing etc. complete as per specification and detailed drawing.	1.79	MT	90000.00	161100.00
71	Providing , erecting , fabricating the M.S. structure as per requirement on site incorporating proper size of M.S. angles, flats, bars, channels, sections complete with cutting, welding, grinding & finishing duly painted with one coat of red oxide with erection on site as per direction of engineer in charge with necessary grouting, cementing, plastering & finishing complete.	1180.00	Kg	90.00	106200.00
72	Miniature circuit breaker single pole 6A to 25A 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 Cat III	36.00	Ea.	130.00	4680.00
73	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables (d) 4 core 16 Sq. mm	55.00	Ea.	175.00	9625.00
74	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables. (A-1) 4 core 4 Sq. mm	872.00	Mtr.	422.00	367984.00
75	Supplying and erecting Flexible PVC insulated multistrand multicore 1.1 kv grade ISI marked copper wires of following size to be erected as directed. e) 1.50 Sq.mm 3 core round PVC sheathed	432.00	Mtr.	51.00	22032.00
76	Providing and, fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables. (b) 2 to 4 core 4 Sq. mm	72.00	Ea.	37.00	2664.00
76 (A)	(e) 2 to 4 core 16 Sq. mm	2.00	Ea.	50.00	100.00
77	Solderless crimping type Aluminium lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner. (C) 16 Sq.mm.	8.00	Ea.	17.00	136.00
78	Solderless crimping type Copper lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner. (A) 1.5/2.5 to 6 Sq.mm	540.00	Ea.	9.00	4860.00

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

Sr No.	Item of work	Quantity	Unit	Estimated Rate in Rs.	Total Amount in Rs
79	Providing & laying approved make Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II )with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable and back filling the same to make ground as per original. (B)90 mm dia	872.00	Mtr.	111.00	96792.00
79 (A)	(C)120 mm dia.	110.00	Mtr.	159.00	17490.00
80	Maintenance Free Chemical Earthing Supplying & erecting earth pit of minimum bore dia.150mm size approved make Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 50mm having 80-200 Micron galvanising, Inner pipe dia of 25 mm having 200-250 Micron galvanising, connection terminal dia of 12mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover. (A)(approved make OEM has to submit test certificate including value of earth resistance of installation duly stamped and signed by agency and officer Incharge has to ensure the value of earthing resistane mentioned in test Certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 ohm / meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphar content:- <2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time ecessary test report must be submitted by Agency. (a) For Electrical Installation up to 440V in normal soil Length of pipe - 3 Mtr Back filling compound - 1 Nos Bag of 15 Kg.	2.00	Ea.	10088.00	20176.00
81	Providing and erecting required size HOT deep Galvanised iron strip for earthing of H.T. , OCB/ ACB/ Transformer LT panel board, Motors etc. using proper clamp.	50.00	Kg	90.00	4500.00
82	Providing and erecting HOT deep Galvanised iron strip wire 8 to 16 SWG.	107.00	Kg	90.00	9630.00
83	Follow Up with supply co. for getting supply to Section Pillar. The scope also covers laying of L.T. cable from Section Pillar to company's cut-out. This also covers to obtain any permission required for road crossing from any authority (if required), Filling the necessary application to supply co., following up and getting the supply filling the necessary test report to the supply co. All official fees shall be paid by client on presentation of documentary proof and all other out of pocket expenses shall be of contractor.	1.00	No	2000.00	2000.00
				<b>TOTAL</b>	<b>12,65,17,175.79</b>
<b>Tweleve Crores Sixty Five Lakh Seventeen Thousand One Hundred Seventy Five and Seventy Nine Paise Only.</b>					

**Name of Work - CONSTRUCTION OF HIGH LEVEL BRIDGE ON RAIYA ROAD  
CONNECTING 2nd RING ROAD & RAIYA CHOWK.(RE-TENDER)**

**Construction Division :-Rajkot Municipal Corporation**

**SCHEDULE B**

Sr No.	Item of work	Quantity	Unit	Estimated Rate in Rs.	Total Amount in Rs
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I/We am/are willing to carry out the work at .....% above/below (percent should be written in figures and words) of the estimated rates mentioned above. Amount of my/our tender works out as under.

Estimated Amount

Put Rs.

Ded Rs.

Net Rs.

In words....

Estimated Amount

Put to Rs.

Deduct..... Rs.

Net Rs.

In words....

\*( please strike out whichever is not applicable)

**Signature of Contractor:-**

**Deputy Executive Engineer  
Rajkot Urban Development Authority  
Rajkot**

**Executive Engineer  
Rajkot Urban Development Authority  
Rajkot**

Note :- The contractor shall exhibit a board with detailed specifications and details of work as directed by the Engineer-in-Charge for which No Extra Payment shall be made

Note :- The Labour Cess will be deducted as per prevailing rules i.e. 1% of the work done

Note :- G.S.T. and Income tax TDS will be deducted at source while making payments of bills

Note :- In all RCC items in Rate Analysis Standard Cement Consumption has been taken as per Govt. G.R. P.C.C.-10-2017- Cement consumption/16/C Dt. 11.05.2017 as stated in S.O.R. therefore in RCC items 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 tenders

**Signature of Contractor:-**

**Deputy Executive Engineer  
Rajkot Urban Development Authority  
Rajkot**

**Executive Engineer  
Rajkot Urban Development Authority  
Rajkot**