

Name of work :- Construction to Roads of Bhavnagar District Package No.RPC-2/BVN/MMGSY/Normal/2025-26/P.41 Ta.Mahuva, Dist.: Bhavnagar.

BILL OF QUANTITIES

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
1	Clearing and grubbing of road land incl.uprooting rank vegetation, grass, bushes, shurbs, saplings and trees girth upto 300mm removal of stumps of trees cut earlier and disposal of unserviceable materials © By mechanical means in area of Light jungle.	1.52	One Hect.	28455.09	43251.74
2	Earthwork for embankment including breaking clods, dressing with all lead and lift (Excluding watering and consolidation) (A) From borrow area with all lead and lift.Executed with machineries.(Selected soil to be used for earthwork shall be from BORROW AREA only having CBR not less than 6.00%)	43266.00	One Cum	161.67	6994814.22
3	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 slopes as directed upto all lead.	358.00	One Cum	112.01	40099.58
4	Earthwork in cutting in all sorts of soil and soft Murrum including conveying and spreading the suff embankment as and where directed within 200 meters from the end of the cutting with all required lead and lift.	2284.60	One Cum	137.32	313721.27
5	Granular Sub-base 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 cruhsed stone well greded material, spreading in uniform layers with motor graded on prepared surfce, 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 Grading-1 Materials.	3606.00	One Cum	1258.40	4537790.40

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
6	WBM Grading-1 Providing, laying, spreading and compacting stone agg. Of 90mm to 45mm size to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 KN in stage to proper grade and camber, applying and brooming, stone screening/binding material to fill-up the intersties of coarse agg., watering and compacting to the required density grading-1 as per Technical Specification Clause.405 By manual means.	1665.00	One Cum	1757.46	2926170.90
7	WBM Grading-2 Providing, laying, spreading and compacting stone agg. Of 63mm to 45mm size to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 KN in stage to proper grade and camber, applying and brooming, stone screening/binding material to fill-up the intersties of coarse agg., watering and compacting to the required density grading-2 as per Technical Specification Clause.405 By manual means.	2624.20	One Cum	1620.12	4251518.90
8	Rolling and Watering of earthwork in layers with vibratory roller including filling in depression which occur during the process as directed.	44507.20	One Cum	23.17	1031231.82
9	Providing and laying bitumenous grout 37.50mm thick using Emulsion RS1 for tack coat at the rate of 4.00kg/10sqm on W.B.M. and using BT chips for required gradation with the asphalt of grade (VG-30) at the rate of 1.99% i.e 19.90kg/MT by weight of mix including heating and mixing in drum mix plant , transporting the mix and spreading the same by paver finisher and consolidation as per MOST specification including cost of all materials fuel, labours, tools and plants etc. using contractor's own drum mix plant etc. complete.	1167.00	One MT	2540.15	2964355.05

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
10	Providing, laying and rolling of 25mm thick using asphalt viscosity grade of VG-30 open graded premix bituminous carpet with B.T aggregates as specified and using Emulsion RS1 for tack coat at the rate of 2.50kg/10sqm on B.T.Surface (As per IRC-16) and using bitumen VG-30 for mixing with aggregate at the rate of 3.36% i.e 33.60kg/MT. of total mix including heating and mixing in drum mix plant, spreading the same with paver finisher and consolidation with vibratory roller including necessary firewood, oil, lubricants, labour charges etc. using equipment tools etc. completed in accordance with the requirement of specification.	818.00	One MT	3228.54	2640945.72
11	Providing and laying seal coat using asphalt viscosity grade VG-30 with B.T. aggregate as specified using aggregate at the rate of 0.18cum/10sqm. And bitumen for mixing with aggregate at the rate of 4.5% i.e 45.00kg/MT of total mix including heating and mixing in drum mix plant and spreading the same by paver finisher and consolidation with vibratory roller including necessary using contractor's own drum mix plant, machineries and equipment, tools etc. complete in accordance with the requirement of specification.	426.00	One MT	3461.69	1474679.94
12	Excavation for foundation upto 1.5m depth including sorting out and stacking of useful materials and disposing of the excavated stuff upto all lead. Dense or hard soil.	1038.00	One Cum	259.93	269807.34
13	Excavation for foundation upto 1.5m depth including sorting out and stacking of useful materials and disposing of the excavated stuff upto all lead. Hard Murrum	679.00	One Cum	442.90	300729.10

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
14	Excavation of foundation in hard murrum and boulders and very stiff or sticky clays and other similar strata including shorting out and strutting and dewatering as necessary and disposing of the excavated stuff as directed.	229.60	One Cum	625.87	143699.75
15	Excavation in large boulders and soft rock by wedging including shoring, strutting and dewatering as necessary and disposing of the excavated stuff as directed,	98.50	One Cum	733.62	72261.57
16	Excavation in hard rock by dry-wet blasting and chiseling including dewatering preparing foundation base by proper benching and stepping and disposing of the excavated stuff as directed (B) Blasting prohibited.	68.30	One Cum	1715.19	117147.48
17	Providing and fixing Mild steel dowel bar 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.	30.00	One Rmt.	450.06	13501.80
18	Providing and casting in situ ordinary cement concrete M-150 mix and providing necessary pin headers including shuttering, scaffolding, laying vibrating, curing and finishing complete Without V-Grooves For all Hieght.	2141.50	One Cum	3938.30	8433869.45
19	Providing and filling in foundation with ordinary cement concrete M-100 mix and providing necessary vertical pin headers incl. Formwork, vibrating, ramming and curing complete.	455.80	One Cum	3362.24	1532508.99
20	Providing parapet of ordinary cement concrete M-200 as per detailed drawing with necessary reinforcement including shuttering laying vibrating and finishing to line and level complete (ii) cast in situ.	29.00	One Rmt.	1089.66	31600.14

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
21	Construction of concrete road using tremix system with 20cm/15cm thick controlled M-200 concrete mixing conplast P-211 water reduction admixture @ 100ml/bag of cement and hardner 62.50ml. /bag using fixing and removing "C" channels of required road depth levelling if placed concrete with surface vibrator, finishing the surface with power floater and towel tight brooming as directed with providing expansion joints 20x200mm and contraction joints 20x20mm using concrete cutter machine etc. complete.	142.50	One Cum	7391.23	1053250.28
22	Providing and casting in situ Controlled cement concrete M-200 for R.C.C. work in Piers, abutment, returns and riding returns as per drawing including centering, shuttering, scaffolding where necessary laying, vibrating curing and finishing complete (A) For all Height	244.80	One Cum	5247.04	1284475.39
23	Providing and casting in situ Controlled Cement concrete M 20 mix for R.C.C. works in pier cap, abutment cap, and dirt wall including controlled cement concrete M 25 bed block or pedestals for required size below bearings as per detailed drawings, centering, shuttering, scaffolding wherever necessary laying, vibrating, curing and finishing complete.	17.50	One Cum	5327.23	93226.53
24	Providing and casting in situ Controlled cement concrete M 25 for R.C.C. Solid slab including centering, scaffolding, curing and finishing complete.	63.30	One Cum	5294.73	335156.41
25	Providing and casting in situ Controlled cement concrete- M-200 for average 75/150mm thick wearing coat laid as directed including tamping, vibrating, finishing, curing and filling in joints with bitumen complete.	266.20	One Cum	5320.24	1416247.89
26	Providing and casting in situ Controlled cement concrete- M-200 mix for Approach slab including formwork, curing and finishing complete.	13.50	One Cum	5178.40	69908.40

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
27	Providing and casting in situ Controlled cement concrete- M-20 mix for kerbs/Kerb blocks including formwork,curing and finishing complete.	3.60	One Cum	4886.91	17592.88
28	Providing and laying weep hole in Abutment and returns by using A.C/PVC pipe of 100mm. Incl. fixing in proper grade and jointing the complete as per detailed specification.	278.00	One No	62.93	17494.54
29	Providing and laying filter media 600mm. thick directed at the back of abutments, returns and wing walls as per detailed specifications.	47.00	One Sqm	1268.86	59636.42
30	Providing and fixing in position Mild steel dowel bars in pier cap or abutment caps for anchorage in fixed end as per detailed drawings including cutting bending and welding complete.	12.00	One No	341.28	4095.36
31	Providing and fixing in position Mild steel dowel bars in pier cap or abutment caps for anchorage in free end as per detailed drawings including cutting bending and welding complete.	12.00	One No	399.69	4796.28
32	Providing and laying in Position FE - 500/500D TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following (A) Piers (B) Abutments (C) Returns (D) Walls etc.	15.420	One MT	73858.69	1138901.00
33	Providing and Fixing in position FE- 500/500D TMT bar reinforcement including cutting, bending, hooking, and tying complete as per detailed drawaing (A)RCC kerb (B) RCC Footpath (B) RCC Solid Slab/ App. Slab / Wearing coat.	14.150	One MT	73243.01	1036388.59
34	Providing 12mm. Thick Pre-moulded asphalt filler joints as per drawings	13.70	One Sqm	703.52	9638.22
35	Providing G.I. 100mm. Diameter water spouts including necessary iron gratings as per drawings.	8.00	One No	536.02	4288.16
36	Providing flood gauge marks on sub structure as per design including painting complete	3.20	One Rmt.	160.06	512.19

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
37	Filling available excavated earth (excluding rock) in trenches plinth sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering.	2123.30	One Cum	137.47	291890.05
38	Numbering the CD work with approved paint including all materials for painting etc. complete.	2.00	One No	58.80	117.60
39	Supplying and fixing reinforced concrete heavy duty non pressure pipes with collars for culverts carrying heavy traffic as per IS 458-1991 specification including setting and joining the pipes in C.M. 1:2 watering and laying (to level or slope) of I.S. Class NP-3 of following internal diameter with all lead and lift. (i) 900mm Dia.	180.00	One Rmt.	3519.58	633524.40
40	Supplying and fixing reinforced concrete heavy duty non pressure pipes with collars for culverts carrying heavy traffic as per IS 458-1991 specification including setting and joining the pipes in C.M. 1:2 watering and laying (to level or slope) of I.S. Class NP-3 of following internal diameter with all lead and lift. (i) 1200mm Dia.	197.50	One Rmt.	5614.64	1108891.40
41	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. RCC Work.	74.50	One Cum	930.35	69311.08
42	Removing all types of Hume pipes and stacking within a lead of 1000m including earthwork and Dismantaling of Masonary works.	25.00	One Rmt.	183.16	4579.00
43	Providing temporary all weather and fair weather diversion suitable for traffic during the construction Period of the bridge / Slab drain including providing necessary drains and all safety measures including red lamps / signals at night for traffic etc. complete.	65.00	One Rmt.	1878.70	122115.50
44	Providing and fixing Precast cement concrete Hectometer as per IRC type design incl. painting, lettering etc. fixing in C.C. 1:5:10.	20.00	One No	356.49	7129.80

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
45	Providing and fixing Precast cement concrete Guard stone as per I.R.C. type design including white washing etc. complete. Fixing in C.C.1:5:10.	480.00	One No	350.80	168384.00
46	Providing and fixing ordinary Kilometer stone of pre-cast C.C. 1:2:4 including necessary reinforcement as per I.R.C. type design in C.C. 1:4:8 including painting lettering etc. complete. (For ODR, VR)	6.00	One No	704.33	4225.98
47	Providing and fixing Indicator stone of approve stone as per I.R.C. type design in C.C. 1:4:8 including white washing etc. complete Fixing in Earth	229.00	One No	102.84	23550.36
48	Providing and fixing Flood guage post mark of 'C' angle size 100mm x 50mm x 6mm thick (in head wall 0.500mt. And 1.50mt. Out side with painting and lettering with redeum color as directed.	14.00	One No	1144.33	16020.62
49	Village/Bump Ahead sign. : Providing and fixing sign boards made out of 2mm Aluminium sheet size 90x60 cms. Rectangle as per the design of IRC-67-1977 pre treated with phospheting process and acid etching coated with one coat of apoxy primer and two coats of best quality epoxy paint reflectorised with retro reflective sheeting as per latest MOST specification letter and numbers should be as per IRC:30-1968, 3.1 Mt. long (2 nos) stand post and frame fabricated from suitable size iron angle of 50x50x5mm, painted with best quality epoxy coating in black and white bends, the details of symbole on inscription/ numerals for each board shall be as per the instruction of the Engineer in charge. The fixing at site shall be in C.C 1:2:4 block of size 45x45x60cms. for each leg including excavation curring etc. complete under the supervision of engineer in charge (A) Engineer Grade.	12.00	One No	5045.36	60544.32

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
50	<p>Hazard Marker sign :</p> <p>Providing and Fixing sign boards made out of 2mm aluminum sheet : size 90*30 cms. rectangle as per design / Drawing attached (IRC). Pretreated with phosphating process and 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 specification: 3.1 M. long (2 nos) stand post and frame fabricated from suitable size iron angle of 35*35*3mm and 50*50*5mm : painted with best quality 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 block of size 45*45*60 cms for each leg: including excavation curing etc. comp.under the supervision of engineer-in-charge.(B) Engineering Grade</p>	10.00	One No	2423.73	24237.30
51	<p>Direction sign (Junction board):-Providing and fixing sign boards made out of 2mm aluminium sheet; size 244 x 122cms. rectangle as as per the design of IRC-67-1977 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 reflective sheeting as per latest M.O.S.T. Specifications; Letters and numerals should be as per IRC-30-1968, 3.1m long (2 nos) stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5mm 75x75x6mm as required; painted with best quality 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 block of size 45 x 45 x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.(A) Engineer Grade(VR)...</p>	2.00	One No	14831.70	29663.40

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
52	Sign Board per square Meter :-Providing and fixing sing boards made out of 2mm aluminium sheet; size 1 Meter x 1 Meter as as per the design given by engineer in charge 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 reflective sheeting as per latest M.O.S.T. Specifications; Letters and numerals should be as per IRC-30-1968, 3.1m long (2 nos) stand post and frame may be fabricated either from suitable size iron angle of 35 x 35x 3mm & 50 x 50 x 5mm & 75 x 75 x 6mm as required painted with best quality 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 block of size 45 x 45 x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.(A) Engineer Grade(VR)...	16.00	One No	7615.37	121845.92
53	Cautionary Warning Sign : Providing and fixing sign boards made out of 2mm Aluminium sheet size 90x90x90 cms. Equilateral treangle as per the design of IRC-67-1977 pre treated with phospheting process and acid etching coated with one coat of apoxy primer and two coats of best quality epoxy paint reflectorised with retro reflective sheeting as per latest MOST specification 3.1 Mt. long stand post and frame fabricated from suitable size iron angle of 35x35x3mm, 75x75x6mm. as required painted with best quality epoxy coating in black and white bends the details of symbole 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 45x45x60cms. for each leg including excavation curring etc. complete under the supervision of engineer in charge (A) Engineering Grade.	14.00	One No	3808.65	53321.10

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
54	Citizen's information Board. Providing and fixing of typical MMGSY information board as per instruction. Two MS sheets of 3 mm thick, of 900 mm x 750mm size fixed at top & bottom duly rivetted with MS angles of 25 x 25 x 5 mm thick M.S angle shall be welded by two vertical M.S angle of 5 mm thick to 75 mm x 75 mm of 12 SWG square tubes posts duly embedded in cement concrete M-15 grade blocks of 600mm x 600mm x 750mm, below ground level. The letters & figure of any shade reflectorised with High Intensity Prismatic Grade Retro Reflective Sheeting of Type-4 as per ASTM D-4956 and latest MORD specifications; All sections of framed posts and steel tube will be painted with primer and two coats of epoxy paints as per drawing Clause 1701 and Annexure 1700.1 (10.16). (A) Class-B High intensity Grade Retro Reflective sheeting.	2.00	One No	7408.35	14816.70
55	Road Marking with Hot Applied paints with reflectorising glass beads on bitumin surface providing and laying a hot applied thermoplasting compound 2.5mm thick including reflectorising glass beads @250 gm per sq.mtr area, thickness of 2.5mm is excluding of surface applied glass beads as per IRC:35-2015 the finished surface to be level, uniform and free from streaks and holes, zebra patta/bump/centerline/edge line/ cut patta. the while color marking should provide liminance coefficient on cement road shall be min. 130 mcd/m2/lux and asphalt road shall be min 100 mcd/m2/lux during the survice life during the date the marking should meet the performanace criteria for night time reflectivity, wet reflectivity and skid resistance as mentioned in the section-15 of IRC 35-2015 warranty for retroreflectivity shall be two years.	98.00	One Sqm	367.72	36036.56

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
56	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-	95.00	One No	326.23	30991.85
57	Providing and erecting a "W" metal crash barrier comprising of 3mm thick currugated sheet metal beam rail, 70cm above Road/Ground level, fixed on ISMC series channel vertical post, 150x75x5mm spaced 2m center to center, 1.8m high, 1.1m below ground/road level, all steel parts and fitments to be galvanized 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 150x75x5mm, 330mm long complete as per clause 810.	105.00	One Rmt.	3723.46	390963.30
Rupees Four Crore Seventy Eight Lakh(s) Ninety One Thousand Four Hundred Seventy Three And Paise Ninety Four Only					47891473.94

I \ We am \ are willing to carry out the work at % above \ bellow percent (Should be written in figures and words) of the estimated rate mentioned above. Amount of My \ Our tender works put as under.

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
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* Estimated Amount

Put to tender **Rs.**.....

Deduct.....%

Net **Rs.**.....

In words.....

* Estimated Amount

Put to tender **Rs.**.....

Add.....%

Total **Rs.**.....

In words.....

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.

2.The labour cess will be deducted as per prevailing rules i.e. 1% of the work done.

3.GST and Income tax TDS will be deducted at a source while making payments of bills

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.

NOTE: Amount Rs.29236/- Of Dismantalled materials shall be recovered from 1st R.A. bill of Contractor at once.

Signature of Contractor.

Deputy Executive Engineer
Panchayat R&B Sub Division
Palitana

Executive Engineer
Panchayat R&B Division
Bhavnagar