

Name of work :- Construction of road upto Shaktimata Mandir from Lakhtar Taluka's Chharad village to road towards Patadi Taluka's Chhabali village (NP) Km.0/000 to 1/200 Ta.Lakhtar,

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, shrubs, saplings and trees girth upto 300mm removal of stumps of trees cut earlier and disposal of unserviceable materials © By mechanical means in area of Lakhtar Taluka	0.30	One Hect.	28393.03	8517.91
2	Earthwork for embankment including breaking clods, dressing with all lead and lift (Excluding watering and consolidation) (A) Selected soil should be From borrow area with all lead and lift and should have CBR not less than 6.00%	3509.90	One Cum	150.38	527818.76
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	291.60	One Cum	104.20	30384.72
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	900.10	One Cum	127.74	114978.77
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.	857.00	One Cum	1409.15	1207641.55

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.	72.90	One Cum	1982.63	144533.73
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.	897.50	One Cum	1836.78	1648510.05
8	Rolling and Watering of earthwork with vibratory roller including filling in depression which occur during the process and as directed	4180.30	One Cum	22.48	93973.14
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.	280.00	One MT	2617.21	732818.80

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
10	Providing and laying and rolling of 20mm thick Compacted mix seal surface with B.T. and aggregate as specified using bitumen Grade VG-30 for mixing with aggregate at the rate of 5.10% i.e 51.00Kg/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 firewood, oil, lubricants, labour charges using contractor's own drum mix plant, machineries and equipment, tools etc including flushing of sand 0.30cum/10sqm etc. complete in accordance with the requirement of specification.	172.00	One MT	3876.58	666771.76
11	Providing, laying and rolling of 25mm thick using asphlat viscosity grade of VG-30 open graded premix bituminous carpet with B.T aggregates as specified and using bulk Emulsion RS1 for tack coat at the rate of 2.50kg/10sqm on B.T.Surface (As per IRC-16) and using bitumen 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.	196.00	One MT	3235.23	634105.08
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. (B) Dense or hard soil.	59.50	One Cum	241.79	14386.51
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. (C) Hard Murrum	49.20	One Cum	412.00	20270.40

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.	221.60	One Cum	582.21	129017.74
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,	83.60	One Cum	682.43	57051.15
16	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.	448.26	13447.80
17	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 Height	160.20	One Cum	3799.61	608697.52
18	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	55.40	One Cum	3226.63	178755.30
19	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	25.00	One Rmt.	1044.47	26111.75

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
20	Dry Lean Cement Concrete Sub base (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 220 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	67.50	One Cum	3256.03	219782.03
21	Cement Concrete Pavement M-30 (Construction of un- reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 53 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound finishing the lines and grade as per drawing	135.00	One Cum	7855.98	1060557.30
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 Items	212.50	One Cum	4991.57	1060708.63

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
23	Providing and casting in situ Contolled 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	17.00	One Cum	5070.49	86198.33
24	Providing and casting in situ Controlled cement concrete M 25 for R.C.C. Solid slab including centering, scaffolding, curing and finishing complete	47.60	One Cum	5064.90	241089.24
25	Providing and casting in situ Contolled cement concrete- M-200 for average 75/150mm thick wearing coat laid as directed incuding. tamping, vibrating, finishing, curring and filling in joints with bitumen complete	26.90	One Cum	5101.10	137219.59
26	Providing and casting in situ Contolled cement concrete- M-200 mix for Approach slab including formwork, curing and finishing complete	12.70	One Cum	4959.26	62982.60
27	Providing and casting in situ Controlled cement concrete- M-20 mix for kerbs/Kerb blocks including formwork,curing and finishing complete	3.10	One Cum	4687.70	14531.87
28	Providing and laying weep hole in Abutment and returns by using A.C pipe of 100mm. Incl. fixing in proper grade and jointing the complete as per detailed specification	73.00	One No	53.44	3901.12
29	Providing and laying filter media 600mm. thick directed at the back of abutments, returns and wing walls as per detailed specifications	41.00	One Sqm	1180.33	48393.53
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	339.87	4078.44
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	396.27	4755.24

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
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.	3.790	One MT	73217.52	277494.40
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	5.600	One MT	72601.86	406570.42
34	Providing 12mm. Thick Pre-moulded asphalt filler joints as per drawings	11.90	One Sgm	702.12	8355.23
35	Providing PVC 100mm. Diameter water spouts including necessary iron gratings as per drawings.	8.00	One No	159.36	1274.88
36	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.	91.60	One Cum	130.39	11943.72
37	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. RCC Work.	111.70	One Cum	886.05	98971.79
38	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..	48.00	One Rmt.	1576.61	75677.28
39	Providing and fixing Precast cement concrete Hectometer as per IRC type design incl. painting, lettering etc. fixing in C.C. 1:5:10.	4.00	One No	356.49	1425.96
40	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	120.00	One No	327.69	39322.80
41	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)	2.00	One No	704.33	1408.66

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
42	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. <u>complete Fixing in Earth</u>	54.00	One No	102.84	5553.36
43	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.	3.00	One No	5045.36	15136.08
44	Hazard Marker sign : Providing and Fixing sign boards made out of 2mm aluminum sheet : size 90*30 cms. rectangle as per design / Drawing attached (IRC). Pretreated with phospheting 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 symbole 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 excvation curing etc. comp.under the supervision of engineer-in-charge.(B) Engineering Grade	4.00	One No	2423.73	9694.92

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
45	Direction sign (Junction board):-Providing and fixing sing boards made out of 2mm aluminium sheet; size 244 x 122cms. rectangle as as per the 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 refiective 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)...	1.00	One No	14831.70	14831.70
46	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 refiective 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)...	4.00	One No	7615.37	30461.48

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
47	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.	1.00	One No	7325.53	7325.53
48	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 retrorreflectivity shall be two years.	264.00	One Sqm	367.72	97078.08

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate	Amount
49	Cate eye / road stud/ RPM : Supplying Raised Pavement markers of polycarbonate and ABS moulded body and reflective panels with micro prismatic lens (No glass bead lens) capable of providing total internal reflection of the light entering the lens face and shall support a load of 13635 kgs. tested in accordance to ASTM D 4280 type H and complying to specification of category A of MORTH circular No RW/NH/33023/10-97-DO III Dt. 11-06-1997. the height, width and length shall be exceed 20mm, 130mm and 130mm and with minimum reflective area of 13sqcm on each side and the slope to the base shall be 35+/-5 degree. the body of the marker should having finger grip for easy and accurate placement and application with epoxy /bituminous adhesive as recommended by the manufacturer of the marker. the colour of the marker should be as per the IRC:35-2015 and as directed by Engineer-in-charge.	40.00	One No	326.23	13049.20
50	Providing and erecting a "W" metal beam crash barrier comprising of 3mm thick corrugated sheet metal beam rail, 70cm above road/ground level, fixed on ISMC series chanel vertical post, 150x75x5mm spaced 2m center to center, 1.8m high, 1.1m below ground/road level, all steel parts and fitments to be galvanised 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 chanel section 150x75x5mm, 330mm long complete.	35.00	One Rmt.	3723.46	130321.10
Rupees One Crore Ten Lakh(s) Forty Seven Thousand Eight Hundred Eighty Six And Paise Ninety Three Only					11047886.93

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. 29042/- 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
Dhrangadhara

Executive Engineer
Panchayat R&B Division
Surendranagar