

Name of Work :- Construction of Minor Bridges on various roads of Santrampur Taluka under MMGSY 2024-25 (Tribal) Package No. 29 (Total 3 Roads) Dist. Mahisagar.

BILL OF QUANTITIES

Memorandum showing item of works to be carried out.

It. No.	Description of Item	Qty.	Unit	Rate in figures	Total Amount
1	2	3	4	5	6
1	Box cutting the road surface to proper slope and camber for making a base for road work including removing the excavated stuff and depositing on the road side slope as directed within all lead and lift.	600.60	Cum	109.42	65717.66
2	Providing, laying and spreading Granular sub base (Grade-I) by providing close graded MCBT material in single layer with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacted with vibratory roller 80 to 110 KN static weight to achieve desired density etc. completed.	422.00	Cum	1219.46	514612.12
3	Providing & laying compacted WBM Grading-II using MCBT metal of size 53mm to 22.4mm in required layers including using 24% stone screening, 11.2mm size and 8% stone dust as filler including spreading, watering and consolidation by vibratory roller as per MORTH specification etc complete as directed by engineer in charge.	268.00	Cum	1748.18	468512.24
4	Earthwork for embankment including breaking clods, dressing with all lead and lift including rolling with power roller, watering and consolidation from borrow pits within land width.	8844.25	Cum	188.99	1671474.81
5	Providing and laying compacted of specified quarry spaul in side shoulder including carriage of material and spreading on prepared base including compacting as per MORTH specification etc. complete.	32.00	Cum	988.03	31616.96
6	Providing and filling in foundation with ordinary cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 crushed stone aggregate 20mm nominal size) mix and providing necessary vertical pin headers including formwork, vibrating, ramming and curing complete.	180.00	Cum	3341.16	601408.80
7	Providing and casting in situ ordinary cement concrete M-250 mix with Trimix C.C. Road laid as directed including vibrating, curing and filling in joints with bitumen complete.	360.00	Cum	4657.11	1676559.60
8	Providing and fixing I.S.I. mark T.M.T. bar Fe-550D reinforcement for R.C.C. work including binding, bending and placing in position complete upto floor two level.	8575.00	Kg.	76.91	659503.25
9	Supplying, fixing and joining reinforced concrete heavy duty non-pressure pipes carrying Indian Railway standard with collars for culverts carrying heavy traffic as per Indian Railway standard specification including setting and joining the pipes in C.M. 1:2 watering and laying (to level or slopes) of I.S. class NP-4 of 300mm internal diameter.	100.00	Rmt.	1053.39	105339.00

It. No.	Description of Item	Qty.	Unit	Rate in figures	Total Amount
1	2	3	4	5	6
10	Hazard Marker Sign :- Providing and fixing sign board made out of 2mm aluminium sheet size 90 x 30 cms. rectangle as per the design / drawing attached (IRC) pretreated with phosphating & 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.R.T.H. specification, 3.1m long (2 nos.) stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm & 50 x 50 x 5mm painted with best quality epoxy coatings in black and white bends. The details of symbol or inscription / numerals for each board shall be as per instruction of Engineer in charge. The fixing at site shall be in 1:2:4 C.C. 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).	6.00	No.	2423.74	14542.44
11	Direction sign (Junction board) :- Providing and fixing sign boards made out of 2mm aluminium sheet size 244 x 122cms. rectangle 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, 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)	6.00	No.	6375.50	38253.00
12	Citizen's Information Board : Providing and fixing of typical information board as per instruction. Two M.S. plate of 1.6mm thick of 900mm x 750mm size fixed at top and bottom duly welded with M.S. angle with angles of 25 x 25 x 5mm thick M.S. plate shall be welded by two vertical M.S. flat and four horizontal M.S. flats 5mm thick to 75mm x 75mm of 12 SWG square tube posts duly embedded in cement concrete M-15 grade C.C. blocks of 600 mm x 600mm x 750mm below ground level. Painting new letters and figures of any shade with ready mixed synthetic enamel paint of superior quality in required shade and coloured, all sections of frame joints and steel tube will be painted with primer and two coats of epoxy paint as per drawing clause 1701 & Annexure 1700.1 (10.16).	3.00	No.	24011.74	72035.22
13	Road marking with hot applied thermoplast compound with reflectorising glass beads on bituminous surface and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads @250 gms/sqmt area, thickness of surface applied glass beads as per IRC 35. The finish surface to be level uniform free from streaks and holes.	81.00	Sq.m.	367.73	29786.13
14	Supply & fixing logo board of MMGSY diamond size (600mm x 600mm) 16 gauge & board plate size (900mm x 250mm) 16 gauge thick M.S plate and 2.40 mt. deep length single angle 75 x 75 x 6 mm size including fitting and painting lettering with luminous color as per drawing etc. complete.	3.00	No.	4129.89	12389.67

It. No.	Description of Item	Qty.	Unit	Rate in figures	Total Amount
1	2	3	4	5	6
15	Cautionary Warning Sign :- Providing and fixing sign board made out of 2mm aluminium sheet size 90 x 90 x 90 cms equilateral triangle as per the design of IRC-67-1977. Pre treated with phospheting process and acid etching coated with one coat of epoxy primer and two coats of best quality epoxy paint, reflectorized with retro reflective sheeting as per the latest M.O.R.T.H. specification, 3.1 Mt. long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3 mm, 75 x 75 x 6 mm; painted with best quality epoxy coating in black and white bends. The details of symbol 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 60 cms for each leg, including excavation curing etc. complete under the supervision of Engineer-in-charge. (A) Engineer grade (VR).	10.00	No.	3808.66	38086.60
16	Informatory Warning Sign :- Providing & fixing sign boards made out of 2mm aluminium sheet size 80 x 60 cms as per design of IRC 67-1977. Pre treated with phospheting process and acid etching coated with one coat of epoxy primer and two coats of best quality epoxy paint, reflectorized with retro reflective sheeting as per the latest M.O.R.T.H. specification, 3.1 mt. long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3 mm, 75 x 75 x 6 mm; painted with best quality epoxy coating in black and white bends. The details of symbol 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 60 cms for each leg, including excavation curing etc. complete under the supervision of Engineer-in-charge. (A) Engineer grade (VR).	6.00	No.	3856.90	23141.40
17	Type - A, "W" : Metal Beam Crash Barrier (Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 70 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.1 m below ground/road level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per clause 810)	80.00	Rmt.	3354.21	268336.80
18	Cat Eye/ Road Stud/ RPM :- Supplying of moulded 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 distance and shall support a load of 13635 Kgs. tested in accordance to ASTM-D 4380 Type H and complying to specifications of Category - A of MORTH circular No. RW/NH/33023/10-97-DO in Dt. 11.06.1997. The height, width and length shall not exceed 20mm, 130mm and 130mm and width minimum reflective area of 13 Sq.cm on each side and slope to the base shall be 35 +/- 5 degrees. The strength of detachment of the integrated cylindrical shanks (of diameter not less than 19 +/- 2 mm) and height not less than 30+/-2mm) from the bode is to be a minimum valve 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 manufacture's recommendations and the colour of the marker should be as per the IRC 35-2005 and as directed by engineer in charge.	26.00	No.	326.23	8481.98

It. No.	Description of Item	Qty.	Unit	Rate in figures	Total Amount
1	2	3	4	5	6
19	Excavation for foundation up to 1.50 mt. depth including sorting out and stacking of useful material and disposing off the excavated stuff within all lead and lift for all sorts of soil.	838.00	Cum	149.08	124929.04
20	Providing and filling in foundation with ordinary cement concrete M-100 mix and providing necessary vertical pin headers including formwork, vibrating, ramming and curing complete.	65.00	Cum	3105.12	201832.80
21	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-groove (A) height 0.0 to 5.0 mt.	1182.00	Cum	3678.42	4347892.44
22	Providing and fixing Guard stone as per IRC type design including white washing etc. complete. (ii) Fixing in C.C. 1:5:10.	140.00	No.	349.11	48875.40
23	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layer not exceeding 20 cm in depth consolidating each deposited layer by ramming and watering etc. complete.	649.00	Cum	133.69	86764.81
24	Providing and laying filter media 600 mm thick as directed at back of abutment, returns and wing walls as per detailed specifications.	964.44	Sq.m.	1247.98	1203604.33
25	Providing and filling sand behind abutment & between returns in layers as directed etc. complete.	591.62	Cum	467.68	276686.97
26	Providing flood gauge marks on sub structure as per design including painting complete.	14.02	Rmt.	163.02	2284.73
27	Providing masonry steps with cement pointing on approaches as directed.	333.30	Steps	230.50	76826.11
28	Providing fusion bonded epoxy coating not less than 175 micron thickness and up to 300 micron to reinforcement bars as per IS-13620-1993/ATM-775M including testing of coating at plant and all taxes (A) 10mm to 16mm dia. bar.	77.97	M.T.	10162.62	792389.64
29	Providing fusion bonded epoxy coating not less than 175 micron thickness and up to 300 micron to reinforcement bars as per IS-13620-1993/ATM-775M including testing of coating at plant and all taxes (B) 20mm to 32mm dia. bar.	181.93	M.T.	7296.24	1327426.83
30	Demolition including stacking of serviceable materials and disposal of unserviceable material with all lead and lift (1) RCC work.	1803.18	Cum	1068.76	1927162.38
31	Excavation for foundation in sand, gravel, clay soft soils and murrum etc. including shoring, strutting dewatering as necessary and disposing of the excavated stuff as directed. (A) Depth upto 3.0 M. and lead upto 100m for 10 Cum.	2688.08	Cum	514.10	1381942.96
32	Providing and casting in situ ordinary cement concrete M-150 for R.C.C. raft and cut-off walls including necessary shuttering, laying, vibrating, ramming and curing complete.	120.33	Cum	3727.15	448469.32
33	Providing and casting in situ controlled cement concrete M-300 for R.C.C. raft and cut-off walls including necessary shuttering, laying, vibrating, ramming and curing complete.	954.11	Cum	5570.12	5314479.34
34	Providing and laying in position I.S.I. mark Fe-550D T.M.T. bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawing for foundations.	81.457	M.T.	73656.44	5999832.63

It. No.	Description of Item	Qty.	Unit	Rate in figures	Total Amount
1	2	3	4	5	6
35	Providing and casting in situ controlled cement concrete M-300 for R.C.C. return as per drawings including centering, shuttering, scaffolding wherever necessary laying, vibrating, curing and finishing complete. (A) Height from 5.0 mt. to 10.0 mt. (1) Piers & Caps (2) Abutment & caps (3) R.C.C. returns.	734.69	Cum	5812.05	4270055.01
36	Providing and laying in position I.S.I. mark Fe-550D (T.M.T.) bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawing for the following (A) Piers (B) Abutment & (C) R.C.C. return.	142.159	M.T.	74331.96	10566957.10
37	Providing and laying weep hole in abutment and returns by using A.C. pipes of 100 mm dia. with laying in proper grade and jointing the completed as per detailed specification.	879.00	No.	86.27	75831.33
38	Providing and casting in situ or precast controlled cement concrete M-350 for prestressed concrete work in super structure including centering, shuttering, curing, scaffolding, ramming, vibrating, finishing and launching or shifting complete (i) Solid slab.	289.80	Cum	7808.42	2262880.12
39	Providing and placing in position I.S.I. mark Fe-550D T.M.T. bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawing. (B) T-Beam and deck slab type of super structure (i) Solid slab.	44.712	M.T.	74482.12	3330244.55
40	Providing C.I. 100mm diameter water spout including necessary iron grating as per drawings.	16.00	No.	912.40	14598.40
41	Providing and casting in situ controlled cement concrete M-40 for average 100mm thick wearing coat laid as directed including tamping, vibrating, finishing, curing and filling in joints with bitumen complete.	59.50	Cum	5718.20	340255.77
42	Reinforced cement concrete crash barrier (Provision of an Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with M-40 grade concrete with T.M.T. Fe-550D reinforcement conforming to IRC:21 and dowel bars 25 mm dia., 450 mm long at expansion joints filled with pre-moulded asphalt filler board as per drawing having bottom size of 450mm, top 225mm and Ht. 1100mm all locations directed by the Engineer.	139.20	Rmt.	9808.12	1365290.30
43	Providing and casting in situ controlled cement concrete M-150 for approach slab including form work, curing and finishing	29.97	Cum	4738.63	142016.74
44	Providing and casting in situ controlled cement concrete M-200 for approach slab including form work, curing and finishing	59.94	Cum	5153.49	308900.19
45	Providing pre-moulded asphalt filler joints as per drawings (A) 40mm.	40.32	Sq.m.	703.53	28366.33
46	Filling around pipes with murrum including dressing, tampering etc. complete (Soil cone pitching)	2254.22	Cum	88.53	199566.01
47	Providing panel wall for dry stone pitching in uncoursed rubble masonry with hard stone of approved quality in cement mortar 1:3 including curing etc. complete.	529.98	Cum	2650.76	1404852.44
48	Providing and laying Filter material underneath pitching in slopes complete as per drawing and Technical specification.	1766.60	Cum	1239.35	2189439.43
49	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.	149.22	Cum	3793.64	566102.14

It. No.	Description of Item	Qty.	Unit	Rate in figures	Total Amount
1	2	3	4	5	6
50	Providing and casting in situ ordinary cement concrete M-250 for R.C.C. raft and cut-off walls including necessary shuttering, laying, vibrating, ramming and curing complete.	51.00	Cum	4720.93	240767.43
51	Providing and casting in situ controlled cement concrete M-250 for R.C.C. return as per drawings including centering, shuttering, scaffolding wherever necessary laying, vibrating, curing and finishing complete. (A) Height from 0.0 mt. to 5.0 mt. (1) Piers (2) Abutment (3) R.C.C. returns.	374.00	Cum	4720.93	1765627.82
52	Providing and casting in situ controlled cement concrete M-250 for R.C.C. works in pier cap, abutment cap and dirt wall including controlled cement concrete M-300 bed block or pedestal of required size below bearing as per detailed drawing, centering, shuttering, scaffolding wherever necessary laying, vibrating, curing and finishing complete.	9.00	Cum	5407.93	48671.37
53	Providing and casting in situ controlled cement concrete M-250 for R.C.C. solid slab including centering, scaffolding, curing and finishing complete.	76.00	Cum	5452.98	414426.48
54	Providing P.V.C. 100mm diameter water spout including necessary grating as per drawing 0.50 per length.	4.00	No.	159.37	637.48
55	Providing and fixing in position mild steel dowel bars (I.S.I. mark) in pier caps or abutments caps for anchorage in fixed end as per detailed drawing including cutting, bending and welding complete.	8.00	No.	341.29	2730.32
56	Providing and fixing in position mild steel dowel bars (I.S.I. mark) in pier caps or abutments caps for anchorage in free end as per detailed drawing including cutting, bending and welding complete.	8.00	No.	399.70	3197.60
57	Reinforced cement concrete crash barrier (Provision of an Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with M-400 grade concrete with TMT Corrosive Reinforcement Steel (CRS) conforming to IRC:21 and dowel bars 25 mm dia., 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/ 94-DO III dated 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified).	36.00	Rmt.	3353.20	120715.20
58	Removal of NP2 - 900mm dia. pipe including stacking serviceable material on site of work as directed.	7.50	Rmt.	60.60	454.50
59	Supplying and fixing reinforced concrete heavy duty non-pressure pipes with collars for culverts including setting and joining the pipes in C.M. 1:2 watering and laying (to level or slopes) of I.S. class NP-4 of 1200mm internal diameter.	45.00	Rmt.	6595.90	296815.50
60	Providing, laying and rolling 25 mm thick open graded premixed bituminous carpet with B.T. aggregate as specified and using bitumen (VG-30) for mixing with aggregate at the rate of 3.36% i.e. 33.60 kg/M.T. of total mix including heating and mixing in drum mix plant and spreading the same with paver finisher and consolidation with vibratory roller as per MORTH specification including necessary firewood, oil, lubricants, labour charges etc. using contractor's own drum mix plant and equipment, tools etc. completed in accordance with the requirement of specification.	30.00	M.T.	2765.72	82971.60

It. No.	Description of Item	Qty.	Unit	Rate in figures	Total Amount
1	2	3	4	5	6
61	Providing and laying seal coat with B.T. aggregate as specified using aggregate at the rate of 0.18 cum/10 Sqmt and bitumen grade (VG-30) for mixing with aggregate at the rate of 4.50% i.e. 45.00 kg/M.T. 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 contractor's own drum mix plant and equipment, tools etc. complete in accordance with the requirement of specification.	18.00	M.T.	3218.87	57939.66
62	Providing and laying evenly tack coat using rapid setting emulsion (RS-1) materials at the rate of 4.00 Kg / 10 Sq.M. on road surface using emulsion pressure sprayer including the cost of all labour, materials, heating, machinery & equipment etc. complete.	564.00	Sq.m.	18.38	10366.32
			TOTAL Rs.	59971874.55	

i.e. Rs. Five Crore Ninety Nine lacs Seventy One thousand Eight hundred Seventy Four and Fifty Five paise only.

I/We am/are willing to carry out the work @ _____ % above/below percent (Should be written in figures and words) of the estimated rate mentioned above. Amount of my /our tender works out as under.

Estimated amount put to tender	Estimated amount put to tender
Deduct.....% below	Add.....% Above
Net Rs. _____	Total Rs. _____
In words _____	In words _____

Note :-

- 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.
- The labour cess will be deducted as per prevailing rules i.e. 1% of the work done.
- GST and Income tax TDS will be deducted at a source while making payments of bills.
- 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.
- Credit for dismantled materials of amount of Rs. 8,69,489.66 must be recovered from 1st R.A. bill of Contractor's.**

Above all items of "Schedule-B" with Item Description, Unit, Rate & Amount have verified by me and found order.

Deputy Executive Engineer
Panchayat (R & B) Sub Division,
Santrampur

Sr. Divisional Account Officer
Panchayat (R & B) Division,
Mahisagar

Executive Engineer
Panchayat (R & B) Division,
Mahisagar