

NIT Schedule for Construction of Shivpur Talkesri to Baharpur road.

P.A.C. 500.42 Lakh

sn.	item no.	item of work	QTY	Unit	Rate	Amount
1	2	3	4	5	6	7
1	2.2	Clearing and Grubbing Road Land				
		Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees having girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material up to a lead of 1000 C18meters including removal and disposal of top organic soil not exceeding 150 mm in thickness.				
	iii)	by mechanical means using by motor garder				
	A	In area of light jungle	3.68	Hac	29409	108078
2	3.3	Excavation in Soil using Hydraulic Excavator and Tippers with disposal up to 1000 meters.				
		Excavation for roadwork in soil with hydraulic excavator including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting suitable earth to the embankment location and disposing off unsuitable earth with all lifts and lead up to 1000m as per relevant clauses of section-300 of specification.	1059.15	Cum	79	83673
3	3.13	Embankment/ Sub Grade Construction with Material Obtained from Borrow Pits				
		Construction of embankment with approved material having CBR>7 obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-1, 300-2 and as per relevant clauses of section- 300.	30318.75	Cum	298	9034988
4	4.16	Construction of Shoulders with approved material/selected soil i/c excavation all lifts & leads i/c grading to required slope & camber of 4% and compacting on OMC using vibratory roller of 80 to 100 kN static weight. Field compaction shall be done in corresponding layers of carriage way thickness and meet the requirements of MDD to achieve compaction (98% -100%) as per relevant clause of 408.				
	A	Hard Shoulders (CBR value >12)	8821.45	Cum	398	3510937
5	4.2	Crusher Run Macadam Sub Base/Base Course				
		Providing crushed stone aggregate, depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a vibratory roller as per clause 410 to form a layer of sub-base/Base in accordance to Table No. 400-14, 400-15 and as per clause of section 407 of specifications.				
	ii	For 37.5 mm maximum size	6159.88	Cum	1198	7379530

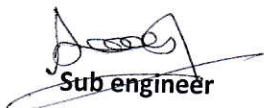
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1	2	3	4	5	6	7
6	4.3	Wet Mix Macadam				
		Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper 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 in accordance to Table No. 400-12, 400-13 and as per clause of section 406 of specifications.				
	A	By Sensor Paver	4497.19	Cum	1451	6525419
7	5.1	Prime Coat Over WMM/WBM				
		Providing and applying primer coat with cationic bitumen emulsion on prepared surface of granular Base including cleaning of road surface and spraying primer at the rate of 0.70 to 1.00 kg/sqm using mechanical means as per clause 502 of specifications.	19987.50	Sqm	44	879450
8	5.3	Providing and applying tack coat with cationic bitumen emulsion using emulsion pressure distributor on the prepared bituminous/granular surface cleaned with mechanical broom and as per relevant clauses of section-503 of specifications.				
		(ii) @0.30 kg per sqm (dry & hungry bituminous surfaces /Granular surfaces treated with primer)	19987.50	Sqm	15	299813
9	5.6	Dense Graded Bituminous Macadam				
		Providing and laying dense bituminous macadam using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a Electronic Sensor paver finisher with sensor control to the required gradelevel and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per clause 505 of specification complete in all				
	b	Using Drum Mix Plant of appropriate capacity.				
	iv	for Grading II (26.5 mm nominal size) Bitumen Content minimum 4.5% with bitumen 60/70 (VG 30)	999.38	Sqm	7759	7754151
10	5.7	Bituminous Concrete				
		Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 % by weight of total mix of mix and filler, transporting the hot mix to work site, laying with an Electronic Sensor paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory tandem and pneumatic tyre rollers to achieve the desired compaction as per clause 507 of specification.				
	b	Using Drum Mix Plant of appropriate capacity				
	V	for Grading-II (30-40 mm thickness) Bitumen Content minimum 5.4% with 60/70 bitumen (VG-30)	599.63	Sqm	9260	5552534


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1	2	3	4	5	6	7
11	8.3	Retro- reflectorised Traffic signs				
		Providing and fixing of retro-reflectorised cautionary, mandatory and informatory sign board as per IRC 67-2022 made of high intensity Micro-Prismatic Grade Sheeting (Type IV) vide IRC: 67:2022 clause 6.7.3.2 and clause 801.3.3 of MoRT &H fixed over Aluminum composite material sheet with thermoplastic core of Low density polyethylene (LDPE) between two thick skins/sheets of aluminum with overall thickness of 4mm and aluminum skin of thickness 0.3 on both side, the ACM shall conform to Table 6.1 of IRC:67:2022 and Table 800-1 of MoRT &H specification and High Intensity Micro Prismatic Grade Sheeting shall conform to Table 6.6 of IRC:67:2022 and Table 800-3 of MoRT &H specification of in the clause 6.8 of the IRC 67-2022 and clause 801.3.7 of MoRT&H message legend numerical letter etc. and borders shall be screen printed on high intensity micro prismatic sheeting shall conform to clause 801.3.7 with digital printing ink or of cutout from transparent durable overlay or cutout from the same type of reflecting sheeting for cautionary/ mandatory/ signs, supported on MS sign post of size 75mm x75mm x 6mm of 3.60 meter over all length and fix to ground				
	ii	90 cm equilateral triangle	8.00	Each	4531	36248
	iv	60 cm equilateral triangle	8.00	Each	3717	29736
	ix	80 cm x 75 cm rectangular	10.00	Each	6689	66890
	x	81 cm x 60 cm rectangular	8.00	Each	5391	43128
	viii	60 cm circular	8.00	Each	4078	32624
12	8.11	Direction and Place Identification signs more than 0.9 sqm size board. Providing and fixing of retro-reflectorised cautionary, mandatory and informatory sign board as per IRC 67-2012 made of high intensity Micro- rismatic Grade Sheeting (Type IV) vide IRC:67:2012 clause 6.7.3.2 and clause 801.3.3 of MoRT&H fixed over Aluminum composite material sheet with thermoplastic core of Low density polyethylene (LDPE) between two thickskins/sheets of aluminum with overall thickness of 4mm and aluminum skin of thickness 0.3 on both side, the ACM shall conform to Table 6.1 of IRC:67:2012 and Table 800-1 of MoRT&H specification and High Intensity Micro Prismatic Grade Sheeting shall conform to Table 6.6 of IRC:67:2012 and Table 800-3 of MoRT&H specification of in the clause IRC 6.8of the IRC 67-2012 and clause 801.3.7 of MoRT&H message legend numerical letter etc. and borders shall be screen printed on high intensity micro prismatic sheeting shall conform to clause801.3.7 with digital printing ink or of cutout from transparent durable overlay or cutout from the same type of reflecting sheeting for cautionary/ mandatory/ signs, supported on MS sign post of size 100 x100 x 3mm Square Pipe of 3.60 meter over all length and fix to ground by means of properly designed foundation of dimension	3.60	Sqm	19500	70200


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1	2	3	4	5	6	7
13	8.36	Kilo Metre Stone				
		Reinforced cement concrete M15grade kilometre stone of standard design as per IRC:8-1980, fixing in position including painting and printing etc				
		(i) 5th kilometre stone (precast)	1.00	Each	3686	3686
		(ii) Ordinary Kilometer stone (Precast)	7.00	Each	2131	14917
		(iii) Hectometer stone (Precast)	27.00	Each	621	16767
14	8.38	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beeds on Bituminous surface.				
		Providing and applying (Cleaning of Bituminous surface) thermoplastic compound having composition of binder (Regin) minimum 18 %, titanium dioxide minimum 10 % and intermixed glass beads, minimum 30% of brand like Asian, Burger or equivalent make of 2.5 mm thick including drop down reflectorizing, glass beads @ 250 gms per sqm area thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes, all complete as per clause 803 of	1050.00	Sqm	440	462000
15	6.1	Dry Lean Cement Concrete Sub- base				
		Construction of dry lean cement concrete Sub- base over a prepared sub-grade or drainage layer 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 finisher with electronic sensor, compacting with 8- 10 tonnes vibratory roller, finishing and curing as per clause 601	180.73	Cum	2712	490145
16	6.4	Cement Concrete Pavement				
		30 grade concrete over a prepared sub base with cement , 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 electronic sensor 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, admixtures as approved, curing compound, finishing to lines and grades as per drawing as per IRC 15 2011 and as per relevant clauses of section 602 of specifications complete but excluding cost of steel in dowel bar and tie rods etc. including groove cutting for width of 4 mm- 6mm and 1/3rd depth of PQC within 8-10 hrs placing/ finishing of PQC Including cost of cutting including cleaning of groove and providing approved sealant filling etc. as per	423.13	Cum	5532	2340734

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1	2	3	4	5	6	7
17	6.8	Providing and fixing Steel in dowel bar and tie rod including craddle, laps etc. complete required as per design.				
	A	Mild steel confirming to IS: 432:1982				
		Dowel bars- 32 mm dia 500 mm long@300 mm c/c as per construction joint 6.31 kg/meter	3.12	MT	57734	180329
	B	Tor steel confirming to IS: 1786:2008	0.21	MT	58734	12546
18	8.39	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beeds on Concrete surface.				
		Providing and applying (Cleaning of concrete surface and after applying Concrete primer) thermoplastic compound having composition of binder (Regin) minimum 18 %, titanium dioxide minimum 10 % and intermixed glass beed, minimum 30% of brand like Asian, Burger or equivalent make of 2.5 mm thick including drop down reflectorizing, glass beeds @ 250 gms per sqm area thickness of 2.5 mm is exclusive of surface applied glass beeds as per IRC:35 along with concrete primer. The finished surface to be level, uniform and free from streaks and holes, all complete as per clause 803 of specifications.	50.00	Sqm	465	23250
19	12.1	Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material etc. and as per relevant clauses of section 300 & 2100 in . Above water level for depth upto 3 m below G.L.				
		Ordinary Soil(Including Back filling With Approved material)				
		Depth Upto 3M below ground level	613.08	Cum	79	48433
20	9.1	PCC M-15 in Foundation (Plain cement concrete M-15 mix with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibrationincluding curing for 14 days.) as per MORT&H Specification 408.	65.42	Cum	4225	276387
21	9.8	Providing P.C.C. M-15 Nominal mix for hume pipe culverts in foundation and sub structure etc. as per drawing and as per relevant clauses of section 1500, 1700, 2100 and 2900	650.17	Cum	4425	2876993
22	9.2	Laying Reinforced Cement Concrete Pipe NP4/prestrssed concrete pipe on first class bedding in single row . (Providing and Laying Reinforced cement concrete pipe NP4/prestrssed concrete pipe for culverts on first class bedding of granular material (cost of bedding included) in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets .)				
		B- 1000 mm dia	70.00	RM	6732	471240

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1	2	3	4	5	6	7
23	12.33	Supplying, fitting and placing un-coated HYSD bar reinforcement in foundation complete as per drawing and echnical specifications and as per relevant clauses of section 1600				
		FE 500D/FE 550/FE 550D	0.35	RM	68252	23934
24	9.3	Providing and Laying Reinforced Cement Concrete Pipe NP 4 /prestrssed concrete pipe on first class bedding in double row. Providing and Laying Reinforced cement concrete pipe NP4 /prestrssed concrete pipe for culverts on first class bedding of granular material (cost of bedding included) in double row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets.				
		B- 1000 mm dia	20.00	RM	13621	272420
25	9.4	Providing and Laying Reinforced cement concrete pipe NP4 / prestrssed concrete pipe for culverts on first class bedding of granular material (cost of bedding included) in triple row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets and as per relevant clauses of section-2900.				
		B- 1000 mm dia	30.00	RM	23196	695880
26	6.15	Providing and laying reinforced cement concrete pipe 300mm dia NP-4 for service ducts below concrete pavement.				
		A- 300 mm dia	150.00	RM	850	127500
		A- 600 mm dia	70.00	RM	4250	297500
						50042060


Sub engineer

Checked by me

sdm.


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