



BHARAT HEAVY ELECTRICALS LIMITED
RAMACHANDRAPURAM::HYDERABAD::32
FACTORY CIVIL ENGINEERING DEPARTMENT

SCHEDULE- A

Tender Notice No:

HY/FCD/OT-06/16-17, Dt: 09.06.2016

PRICE BID

Item no.: 2

Name of work:- Repairs and Maintenance of roads in factory area for the year 2016-17.

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
1	Providing, laying , spreading and compacting graded stone aggregate (size range 53mm to 0.075 mm) to wet mix maccadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tipper to site, for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub-base/base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density , complete as per specifications and directions of Engineer-in-charge.	6.00	Cu.m	1,960.60	11,763.60
2	Providing and laying Bitumen Macadam on prepared surface for Pot holes with specified graded crushed stone aggregate for profile corrective base/binder course including loading of aggregates with F.E. loader , hot mixing of stone aggregates and bitumen in hot mix plant , transporting the mixed material by tippers to paver and laying the mixed material with paver finisher fitted with electronic sensing device to the required level and grade and rolling with road rollers, as per Morth specification to achieve the desired density and compaction and including the cost of primer / tack coat - 50 mm / 75 mm average compaction thickness with bitumen of 60/70 grade @ 3.5 % (percentage by weight of total mix) .	60.00	Cu.m	5,578.20	3,34,692.21
3	Providing and applying tack coat using bitumen emulsion (rapid setting) complying with IS 8887 - 1995, spraying the bitumen emulsion with mechanically operated spray unit, cleaning and preparing the existing road surface as per specification on Bitumenous surface @ 0.5 Kg/Sq.m	2,600.00	Sq.m	21.33	55,453.01
4	Providing and applying tack coat using bitumen emulsion (rapid setting) complying with IS 8887 - 1995, spraying the bitumen emulsion with mechanically operated spray unit, cleaning and preparing the existing road surface as per specification on WBM @ 0.75 kg/Sq.m	25.00	Sq.m	32.48	811.95

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
5	2.5 Cm premix carpet surfacing with 2.25 Cu.m and 1.12 Cu.m of stone chipping of 13.2 mm and 11.20 mm size respectively per 100 sq.m and 52 Kg and 56 kg of hot bitumen per cu.m of stone chippings of 13.2 mm and 11.2 mm size respectively including a tack coat with hot straight run bitumen from hot mix plant including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid separately) with paving Asphalt 80 /100 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt.	2,600.00	Sq.m	146.34	3,80,477.22
6	Providing and laying seal coat of premixed fine aggregate (passing 2.36 mm and retain on 180 micron sieve) with bitumen using 128 Kg of bitumen of grade 80/100 bitumen per cu.m of fine aggregate and 0.60 Cu.m of fine aggregate per 100 Sq.m of road surface including rolling and finishing with road roller all complete.	2,600.00	Sq.m	53.42	1,38,901.09
7	Scarifying metalled (water - Bound)road surface including disposal of rubbish lead upto 50 m and consolidation of the aggregate received from scarifying with power road roller of 8 to 10 tonnes capacity.	100.00	sq.m	10.90	1,090.00
8	scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material within all lifts and lead upto 1000 metres (By mechanical means).	100.00	sq.m	2.90	290.00
9a	Supply and stacking of graded stone aggregate at site of size range of 63 mm to 45 mm in two layers of 100 mm thick.	12.00	Cu.m	1,100.80	13,209.60
9b	Supply and stacking of graded stone aggregate at site of size range of 53 mm to 22.40 mm in two layers of 100 mm thick.	12.00	Cu.m	1,190.80	14,289.60
10	Supply and stacking of morrum at site.	10.00	Cu.m	624.45	6,244.50
11	Laying water bound macadam 100 MM consolidated thickness with stone aggregate , stone screening and blinding material including screening, sorting , spreading to template and consolidation with power road roller of 8 to 10 tonne capacity etc., complete.-base course with 63 mm to 45 mm size including stone screening 13.20 mmm size.(Payment for stone aggregate, screening and murram are to be paid separately).	25.00	Cu.m	330.15	8,253.75
12	Dismantling reinforced cement concrete / plain cement concrete and disposing of debries upto to a lead of 2 KM including loading, unloading and spreading as directed by Engineer-in-charge etc., complete.	2.00	Cu.m	1,054.10	2,108.20

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
13	Earth work in excavation in all soils by mechanical means (Hydraulic Excavators) / manual means in foundations trenches or drains (not exceeding 1.5m in width or 10 Sq.m on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed , within a lead of 50M.	75.00	Cu.m	130.80	9,810.00
14	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering including consolidation by vibrations for all works up to plinth level with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size).	10.00	Cu.m	2,656.00	26,560.00
15	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement :2 fine sand) including testing of joints etc. complete - 450mm dia R.C.C pipe.	5.00	RM	342.45	1,712.25
16	Conveyance of excavated spoil up to a lead of 2 Kms, including loading, unloading and spreading etc. complete as directed by Engineer- in- charge.	40.00	Cu.M	93.94	3,757.60
17	Filling with available excavated earth (excluding rock) in trenches , plinth , sides of foundations etc. in layers not exceeding 20 cm in depth , consolidation each deposited layer by ramming and watering , lead upto 50.00 m and lift upto 1.50 m.	40.00	Cu.M	83.80	3,352.00
18	Cutting road and making good the same including supply of extra quantities of materials i.e., aggregate, moorum,screening ,red bajri and labour required for bitumen portion.	5.00	Cu.m	1,861.60	9,308.00
19	Providing and Fixing Glow studs of size 100X20mm made of heavy duty body shall be moulded ASA (Acrylic Styrene Acryloretrite) of HIP)High Impact Polystyrene) or ABS having electronically welded micro-prismatic lens with abrasion resistant coating as approved by Engineer-in-charge. The glow stud shall support a load of 13635 Kg tested in accordance with ASTM D4280.The slope of retro-refelctive surface shall be 35+/-5 degrees to abse. The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM 1:809 as recommended in BS :873 part 4:1973. The studs shall be fixed to the road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer, complete and as per direction of Engineer-in-charge.	100.00	Each	234.00	23,400.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
20	Supply & fixing of heavy duty factory made hydraulically pressed and mechanically compacted pre-cast concrete designed pavers , zig-zag /any other required design pavers in required colour, with 80 mm thickness, M40 Grade, inter lock concrete Paver blocks, including spreading of stone dust properly for fixing the pavers into one level in required design etc. complete. Rate shall include cost of material, transportation, labour, tools, tackles etc complete. Rate for stone dust will be paid separately.	100.00	Sq. m	649.00	64,900.00
21	Supply & stacking of Stone dust including transportation and spreading as directed by Engineer-in-charge.	15.00	Cu. m	1,017.50	15,262.50
22	Supply of Traffic cones.	10.00	Each	330.00	3,300.00
23	Supply of Road safety barriers	10.00	Each	3,500.00	35,000.00
24	Manufacturing, supplying and fixing retro reflective overhead signage boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity and encapsulated lens type heat activated retro reflective sheeting conforming to type - III of ASTM-D-4956-01 as approved by Engineer-in-charge, letters, borders etc. as per IRC : 67-2001 in silver white with blue colour back ground and with high intensity grade, pasted on substrate by pressure sensitive adhesive backing which shall be activated by applying pressure conforming to class II of ASTM-D-4956-01 and fixing the same to the plate of structural frame work by means of suitable sized aluminium alloys, rivets or bolts & nuts @ 300 mm centre to centre all along the periphery as well as in two vertical rows along with theft resistant measures, including the cost of painting with two or more coats of epoxy paint in grey colour on the back side of aluminium sheet including appropriate priming coat. The rate includes the cost of rounding off the corners, lowering down the structural frame work from the gantry, fixing and erecting the same in position all complete as per drawings, specification and direction of the engineer-in-charge.(Structural frame work including M.S. plate to be provided separately. Rectangular area of the sheet only shall be measured for payment) - Overhead informatory road signage.	2.00	Sq.M	4,516.50	9,033.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
25	Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement: 3 coarse sand:6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction of Engineer-in-charge.	10.00	Sq.M	291.65	2,916.50
26	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilometre, as per direction of Engineer-in-charge.	50.00	Cu.M	166.70	8,335.00
27	Providing and applying 2.5 mm thick road marking strips (retroreflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour ,T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications.	60.00	Sq.m	505.80	30,348.00
Total Value of work				₹	12,14,579.59

Note:

1	A penalty of 0.5% of the gross value of work will be levied for every week's delay of work or part there of subject to a maximum penalty of 10% of the gross value of work executed after the period of completion.
2	The rates are inclusive of all taxes and duties except Service tax, swatch bhara tax which is extra as per service tax norms will be paid by BHEL to the agency after submission of necessary documents.

Note : The bidders are required to quote the tender value on percentage (%) basis at excess or less or on par with estimate value in figures and words.

Tender %	In figure	In words
Excess		
Less		
Estimated value		