

Unpriced Price Bid Format							
NIT No.: T0AXX00003							
Name of the Work: "Balance General Civil Works" FOR IOCL PARADIP-STANDBY SRU (525TPD) TRAIN PROJECT							
S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
1	2	3	4	5	6	7	8
1	EARTH WORK: Earth work In excavation, backfilling and disposal including all labour, equipments etc complete as per specification, drawing and as directed by engineer- in-charge for the following			₹ -	₹ -	0.0000000%	
2	Earth work in excavation in all types of soil including ash which can be excavated by any means including setting out, levelling, dewatering (but excluding special type of dewatering viz. well point method), shoring & strutting (wherever required), dressing the sides & bottom, all lifts, ramming/compacting the excavated bottom stacking, disposal of surplus excavated materials within a lead upto 1Km, spreading/levelling of disposed materials etc all complete for following depths below ground level.			₹ -	₹ -	0.0000000%	
3	Depth from ground level but not exceeding 2 m	CUM	800.00	₹ 88.33	₹ 70,664.00	0.1836668%	
4	Depth exceeding 2 m but not exceeding 4 m	CUM	250.00	₹ 110.11	₹ 27,527.50	0.0715483%	
5	Depth exceeding 4 m but not exceeding 6 m	CUM	100.00	₹ 137.94	₹ 13,794.00	0.0358528%	
6	Close timbering over areas including strutting, shoring and packing cavities (wherever required) etc. complete. (Measurements to be taken of the face area timbered). All complete as directed.		-		₹ -	0.0000000%	
7	Depth not exceeding 1.5 m	SQM	20.00	₹ 101.59	₹ 2,031.80	0.0052810%	
8	Depth exceeding 1.5 m but not exceeding 3 m	SQM	20.00	₹ 114.47	₹ 2,289.40	0.0059505%	
9	Depth exceeding 3 m but not exceeding 4.5 m	SQM	20.00	₹ 127.90	₹ 2,558.00	0.0066486%	
10	Open timbering over areas including strutting, shoring etc. complete. (Measurements to be taken of the face area timbered):All complete as directed		-	₹ -	₹ -	0.0000000%	
11	Depth not exceeding 1.5 m	SQM	20.00	₹ 36.17	₹ 723.40	0.0018802%	
12	Depth exceeding 1.5 m but not exceeding 3 m	SQM	20.00	₹ 43.33	₹ 866.60	0.0022524%	
13	Depth exceeding 3 m but not exceeding 4.5 m	SQM	20.00	₹ 54.85	₹ 1,097.00	0.0028513%	
14	Earthwork in Back filling upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 250 mm thickness using/with selected materials directly from excavation within a lead upto 1Km and compacted as specified including re-excavation of stacked earth, watering, ramming/compaction by manual/mechanical means, dressing etc all complete.for the following.		-	₹ -	₹ -	0.0000000%	
15	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	4,780.00	₹ 41.14	₹ 1,96,649.20	0.5111220%	
16	Extra over ST No. 101 and 103 to 108 for carriage of material/earth for every 500m or part thereof beyond an initial lead of 1km		-	₹ -	₹ -	0.0000000%	
17	Carriage for disposal of serviceable/unserviceable material/ eart	CUM	3,400.00	₹ 8.47	₹ 28,798.00	0.0748505%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
18	Supplying and filling sand upto any depth under floors, around foundations, plinths, tank foundations, cable trench filling etc. in layers not exceeding 150 mm thickness and compacted so as to achieve at least 85% relative density as per IS-2720 (Part-XIV) including spreading, watering, ramming/compaction by manual / mechanical means, dressing, royalty (if any) etc. all complete.	CUM	900.00	₹ 787.71	₹ 7,08,939.00	1.8426432%	
19	CONCRETE WORK: Providing and placing concrete work including cost of labour, materials (unless otherwise specified in BOQ/contract specification) and equipment for handling, transportation, batching, mixing, placing, vibrating and curing (excluding cost of centering, shuttering and reinforcement) with mechanised equipments like batching plant, transit mixer, concrete pump etc. complete as per drawing, specifications and as per direction of engineer in charge for the following.		-	₹ -	₹ -	0.0000000%	
20	Concrete of grade M5 (1 part cement, 5 part sand, 10 parts of 40 mm graded aggregate by volume) as mass filling course, lean concrete, levelling course, mud mat under and around foundations/floors, at any depth below finished floor level etc	CUM	600.00	₹ 5,161.10	₹ 30,96,660.00	8.0487029%	
21	Concrete of grade M7.5 (1 part cement, 4 part sand, 8 parts of 40 mm graded aggregate by volume) as mass filling course, lean concrete, levelling course, mud mat under and around foundations/floors, at any depth below finished floor level etc	CUM	60.00	₹ 5,565.90	₹ 3,33,954.00	0.8679986%	
22	Concrete of grade M10 (1 part cement, 3 part sand, 6 parts of 40 mm graded aggregate by volume) as lean concrete, levelling course, mud mat under and around foundations/floors at any depth below finished floor level et	CUM	20.00	₹ 5,923.84	₹ 1,18,476.80	0.3079397%	
23	Concrete of grade M20 (1 part cement, 1.5 part sand, 3 parts of 20 mm graded aggregate by volume) under foundation, drain, floors, paving, plinth protection, pipe encasing etc complete.	CUM	20.00	₹ 6,765.34	₹ 1,35,306.80	0.3516835%	
24	Providing and laying Design Mix cement concrete conforming to IS:456 & IS 10262-2009 for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in foundations/substructure, grade slab, paving, drains, under floors etc, at all level below finished floor level, any shape, position or thickness etc complete including use of plasticizer/ superplasticizer conforming to IS:9103 (latest) to achieve required slump in concrete all complete as per specification & drawing for the following.		-	₹ -	₹ -	0.0000000%	
25	M 25 Grade	CUM	931.64	₹ 7,166.63	₹ 66,76,719.17	17.3538358%	
26	M 30 Grade	CUM	600.00	₹ 7,361.17	₹ 44,16,702.00	11.4796983%	
27	M 35 Grade	CUM	420.00	₹ 7,555.70	₹ 31,73,394.00	8.2481466%	
28	Providing and laying Design Mix cement concrete of grade conforming to IS:456 & IS 10262-2009 for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in superstructure at all level above finished floor level, any shape, position or thickness etc, complete including use of plasticizer/ superplasticizer conforming to IS:9103 (latest) to achieve required slump in concrete all complete as per specification & drawing for the following.		-	₹ -	₹ -	0.0000000%	
29	M 30 Grade	CUM	20.00	₹ 7,511.24	₹ 1,50,224.80	0.3904577%	

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30	Providing and laying Design Mix cement concrete confirming to IS:456 & IS 10262-2009 for reinforce concrete works of grade mentioned below in machine foundations for TG, Gas Turbine, ID/FD/PA fans, BFP, Coal mills at all elevations below/above finished floor level except TG deck and top decks supported over vibration isolation system but including TG foundation Columns, with addition of suitable plasticizer conforming to IS 9103(latest) to achieve a slump more than 125mm in concrete as per manufacturer's recommendation with 20 mm nominal size graded aggregate in concrete all complete as per specification & drawing		-	₹ -	₹ -	0.0000000%	
31	M 35 Grade	CUM	10.00	₹ 8,067.05	₹ 80,670.50	0.2096752%	
32	Providing and laying Design Mix cement concrete as per IS:456 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete in precast works like roof slabs/trench covers, fins, lintels, chajas, beams, columns, wall panels, facias etc.at all levels in all kinds of work including formwork/moulds, curing, rendering the top exposed surface with cement sand mortar (1:3), handling, storing, transpoting, all leads, erection without damage, setting in position with cement sand mortar (1:3), filling the gaps between adjacent precast units with M35 grade concrete or cement sand mortar (1:3) and including making of holes for bolts for fixing, welding etc.complete with graded aggregate (20/12.5/10 mm) and as per specification and drawing for following grades.		-	₹ -	₹ -	0.0000000%	
33	M 35 Grade	CUM	148.00	₹ 7,455.83	₹ 11,03,462.84	2.8680722%	
34	Providing and laying Design Mix cement concrete as per IS:456, IS 3370 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete in water retaining/conveying structures including addition of suitable plastisizer cum waterproofing cement additives confirming to IS 9103 latest to achieve a slump more than 125 mm in concrete as per manufacturers recommendation and conforming to limits of permeability as per IS 2545 and specification with 20 mm nominal size graded aggregate for following grades. Watertightness is to be ensured including structural grouting if required.		-	₹ -	₹ -	0.0000000%	
35	M35	CUM	35.00	₹ 7,455.83	₹ 2,60,954.05	0.6782603%	
36	Extra over St. No. 214 for controlling of temperature of fresh concrete to less than 23 degree centigrade using ice, including all related arrangements for providing, storing and mixing of ice with water, cooling of aggregates etc. All complete as per specification, drawing and instruction of engineer in charge.	CUM	20.00	₹ 1,163.87	₹ 23,277.40	0.0605016%	
37	Dismantling concrete work for all types of structures at all levels including stacking of servicable material to a lead of 500 m and disposal of unservicable material upto a lead of 2 km, cutting of reinforcement, labour, equipment, safety precautions etc all complete as per drawings, specification and instructions of engineer in charge.		-	₹ -	₹ -	0.0000000%	
38	Plain cement concrete of all grades	CUM	70.00	₹ 1,346.73	₹ 94,271.10	0.2450253%	
39	Reinforced cement concrete of all grades	CUM	80.00	₹ 1,952.94	₹ 1,56,235.20	0.4060797%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
40	Dismantling/removing existing flooring with skirting , floor finishes (marble, granite, kota stone / mosaic tiles/ ceramic tiles/ heavy duty concrete flooring etc.), filler and fixing material for all applicable heights including supply of tools and tackles, necessary scaffolding, cleaning and stacking of serviceable material, disposal of unserviceable material to designated place within the plant boundary as per the instructions of the engineer-in- charge, etc., all complete.	SQ M	10.00	₹ 79.67	₹ 796.70	0.0020707%	
41	Dismantling/removing existing False flooring including fixing material (taking all necessary safety precautions for all applicable heights including all tools and tackles, necessary propping, cleaning and stacking of serviceable material, disposal of unserviceable material to designated place within the plant boundary as per the instructions of the engineer-in-charge, etc., all complete.) SQ M	5.00	₹ 39.83	₹ 199.15	0.0005176%	
42	Chipping of concrete in reinforced concrete work, cutting pockets, making openings at all levels and according to shapes, disposal of waste materials upto a lead of 2 km as directed by engineer including equipment, safety precautions, making good the broken surface etc all complete as per specification, drawing, instructions of engineer in charge but excluding cutting of reinforcement .	CUDM	4.00	₹ 44.77	₹ 179.08	0.0004655%	
43	Extra over and above St No 216 for cutting of reinforcement, all sizes and types including labour, equipment, return of cut reinforcement to store etc all complete as per specification, drawings and instructions of engineer in charge. Measurement shall be on the cross sectional area of reinforcement cut.	SQCM	3.00	₹ 3.63	₹ 10.89	0.0000283%	
44	Cutting Reinforced concrete with mechanised tools like Core drilling machine etc. for cutting pockets, holes, cores in slab, beam, column or foundation as per direction of engineer in charge.	CUDM	20.00	₹ 203.28	₹ 4,065.60	0.0105671%	
45	Providing and applying curing compound (water based) of approved make where ever required as per manufacturer's specification	SQM	10.00	₹ 85.59	₹ 855.90	0.0022246%	
47	Fairface form work with good quality water proof ply wood of minimum 12mm thickness and smooth surface below finished ground floor level for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc.including chamfering of edges as per drawing, specification and instruction of engineer in charge..	SQM	1,700.00	₹ 490.05	₹ 8,33,085.00	2.1653180%	
48	Fairface form work with good quality water proof ply wood of minimum 12mm thickness and smooth surface above finished ground floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, etc. including chamfering of edges as per drawing.for all heights as per specification, drawing and instruction of engineer in charge.	SQM	800.00	₹ 568.70	₹ 4,54,960.00	1.1825121%	
49	Providing, fixing and removing formwork in block-outs/pockets and openings (below 0.1 sqm plan area) at all elevations including cutting, formation of all shapes and all other operations required for making the required shape and size all complete as per specification, drawing and instruction of engineer in charge.		-		₹ -	0.0000000%	
50	Upto 150 mm depth	Each	40.00	₹ 258.94	₹ 10,357.60	0.0269210%	
51	Pockets of depths more than 150mm and upto 300 mm depth	Each	40.00	₹ 469.48	₹ 18,779.20	0.0488101%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
52	Pockets of depths more than 300mm and upto 600 mm depth	Each	10.00	₹ 884.51	₹ 8,845.10	0.0229898%	
53	Pockets of depths more than 600mm and upto 1000 mm depth	Each	10.00	₹ 1,429.01	₹ 14,290.10	0.0371422%	
54	Pockets of depths more than 1000mm and upto 1500 mm depth	Each	10.00	₹ 2,101.77	₹ 21,017.70	0.0546283%	
56	Providing, straightening, cutting, bending, placing in position at all level, binding in position of steel reinforcements of TMT steel of grade Fe-500D confirming to IS:1786 including cost of reinforcement steel, binding wire, labour, scaffolding, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer. (16-gauge black soft annealed SWG wire shall be used for binding of reinforcement bars)	MT	30.00	₹ 53,759.20	₹ 16,12,776.00	4.1918567%	
57	Providing, straightening, cutting, bending, placing in position at all level, binding in position of steel reinforcements of TMT steel of grade Fe-500 HCR (high corrosion resistant) confirming to IS:1786 including cost of reinforcement steel, binding wire, labour, scaffolding, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer. (16-gauge black soft annealed SWG wire shall be used for binding of reinforcement bars)	MT	5.00	₹ 56,447.16	₹ 2,82,235.80	0.7335749%	
58	Providing & fixing of Rebar in existing concrete surface by inserting reinforcement bar with Epoxy based suitable bonding compound of Hilti or equivalent make (HIT-RE-500 of Hilti or equivalent make) for interconnection of new R.C. structure with existing R.C. structure. Depth of drilled hole should be suitable to develop maximum recommended strength as per approved manufacturer's recommendation. This item includes supply of all materials including bonding chemicals, T&P required to execute the work, cost of all labour, transportation of chemical, staging to reach work place etc. all complete as directed by Engineer - in - Charge. Random Pull out non destructive test as directed by engineer shall be conducted to ensure strength of bond and same is included in this item. Reinforcement bar shall be paid separately under item no. 402 as applicable.		-	₹ -	₹ -	0.0000000%	
59	12mm Reinforcement bar	Nos.	10.00	₹ 367.95	₹ 3,679.50	0.0095636%	
60	16mm Reinforcement bar	Nos.	20.00	₹ 584.71	₹ 11,694.20	0.0303951%	
61	20mm Reinforcement bar	Nos.	10.00	₹ 830.38	₹ 8,303.80	0.0215829%	
62	25mm Reinforcement bar	Nos.	5.00	₹ 913.42	₹ 4,567.10	0.0118706%	
63	28mm Reinforcement bar	Nos.	5.00	₹ 1,004.76	₹ 5,023.80	0.0130576%	
65	Providing and applying two coats of hot bitumen paint of grade 20/30 with quantity of bitumen at least 1.2kg/m2 per coat over all underground structures etc including top surface of foundations etc. all complete as directed by engineer - in - charge.	SQM	1,250.00	₹ 128.41	₹ 1,60,512.50	0.4171971%	
66	Providing and mixing Crystalline water proofing compound conforming to IS:2645 in concrete or cement mortar all complete.	KG	150.00	₹ 116.72	₹ 17,508.00	0.0455060%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
67	Providing 18 mm thick plain cement plaster in cement mortar 1:6 (1 cement: 6 fine sand, by volume), with crystalline waterproofing compound (conforming to IS:2645) of approved make, mixed to cement mortar (@1% by weight of cement), on outermost surface of brick lining in pit walls, including cleaning, preparation of the surface, scaffolding, curing etc. for all depths and heights complete as per drawings, specifications and as directed by Engineer-in-Charge. (SUPPLY OF ALL MATERIALS, INCLUDING CEMENT, ARE IN CONTRACTOR'S SCOPE). Supply of Crystalline water proofing compound is covered in item no 51	SQM	25.00	₹ 194.53	₹ 4,863.25	0.0126403%	
68	JOINTS AND FILLERS: Joints & fillers including all labour, material, equipment, transportation, handling etc at all level as per specification, drawings and as directed by engineer - in - charge.		-	₹ -	₹ -	0.0000000%	
69	Supplying & installation of bitumen impregnated fibre board conforming to IS 1838 as joint filler at joints in concrete including nailing, coating of both faces with coal tar pitch/bitumin etc. all complete.		-	₹ -	₹ -	0.0000000%	
70	12 mm wide joints.	SQM	50.00	₹ 608.06	₹ 30,403.00	0.0790221%	
71	20 mm wide joints.	SQM	1,000.00	₹ 828.16	₹ 8,28,160.00	2.1525172%	
72	Providing and applying polysulphide based sealant conforming to IS:12118 in joints in concrete including cleaning of joints, raking out groove, application of primer, scaffolding etc. all complete for following size grooves:		-	₹ -	₹ -	0.0000000%	
73	20mm X 25mm	RM	100.00	₹ 541.92	₹ 54,192.00	0.1408535%	
74	Providing 20mm wide Expansion Joints in pavement slabs including cleaning the joints of all loose material, filling with 20mm thick impregnated fibre boards for the full depth of slab except for 25mm depth from top and sealing the top 25mm with approved Joint Sealing Compound as per IS:1834 Type-B etc (Including providing and laying MS dowel bar Grade S 240, painting as required, GI pipe and cap and cotton waste) all complete as per drawings, specifications and directions of Engineer-in-Charge.	SQM	46.00	₹ 910.98	₹ 41,905.08	0.1089178%	
75	Supplying and filling in position hot applied bitumin sealing compound (Grade B) conforming to IS 1834 including cleaning, mixing, heating, pouring/injecting sealing compound in gaps in joints including application of primer etc. all complete.		-	₹ -	₹ -	0.0000000%	
76	10mm X 40mm	RM	100.00	₹ 60.03	₹ 6,003.00	0.0156027%	
77	20mm X 25mm	RM	1,000.00	₹ 70.03	₹ 70,030.00	0.1820189%	
78	Providing and fixing PVC water stops in joints conforming to IS 12200 & IS 15058 all complete for the following: (Bulb or Kicker type		-	₹ -	₹ -	0.0000000%	
79	230 mm wide and 6 mm thick	RM	50.00	₹ 394.63	₹ 19,731.50	0.0512852%	
80	Providing and fixing Aluminium water stops in joints of deep underground structure all complete for the following:		-	₹ -	₹ -	0.0000000%	
81	150 mm wide and 1.6 mm thick	RM		₹ 700.32	₹ -	0.0000000%	
82	230 mm wide and 8 mm thick	RM		₹ 1,677.44	₹ -	0.0000000%	
83			-	₹ -	₹ -	0.0000000%	

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85	Supply, fabricating and fixing of mild steel embedments, inserts, pipe sleeves, angle pieces, rungs of various diameters, plates of dimensions as required etc. including welding, bolting, cutting, drilling, scaffolding, settin etc. all complete.	MT	10.00	₹ 65,071.07	₹ 6,50,710.70	1.6912987%	
86	Supply, Fabrication, transportation, delivery at site and erection, installation and alignment of mild steel foundation bolt assembly conforming to IS:2062 and grade 1 of IS:432 in concrete along with nuts, lock nuts (as per IS:1363, 1364 and IS:3138), washers, anchor plates, stiffner plates, protective tape, pipe sleeves, templates etc. including welding, cutting, grinding, threading, drilling etc. all complete.	MT	2.00	₹ 79,906.79	₹ 1,59,813.58	0.4153805%	
87	Same as above items 701 & 702 with BHEL supplied material free of cost including loading, transportation, unloading etc. all complete from BHEL store to plant site		-	₹ -	₹ -	0.0000000%	
88	Mild steel embedments, inserts, pipe sleeves, angle pieces, rungs of various diameters, plates of dimensions as required etc.	MT	10.00	₹ 16,062.95	₹ 1,60,629.50	0.4175012%	
89	Mild steel foundation bolt assembly conforming to IS:2062 and grade 1 of IS:432 in concrete along with nuts, lock nuts (as per IS:1363, 1364 and IS:3138), washers, anchor plates, stiffner plates, protective tape, pipe sleeves, templates etc.	MT	5.00	₹ 15,100.29	₹ 75,501.45	0.1962401%	
90	Supplying, fabricating, erecting and installing following items in concrete/brickwall for all kind of works, including setting material in concrete, layout, scaffoling, cutting, forming, grinding, drilling, bolting, welding, jointing, testing etc. all complete		-	₹ -	₹ -	0.0000000%	
91	GI pipes of all diameters	kg	1,000.00	₹ 94.49	₹ 94,490.00	0.2455943%	
92	PVC pipes / conduits of all diameters	kg	50.00	₹ 222.32	₹ 11,116.00	0.0288922%	
93	UPVC pipes / conduits of all diameters	kg	25.00	₹ 369.06	₹ 9,226.50	0.0239811%	
94	Expansion anchor fasteners (galvanised) of HILTI make(HUD-1 Universal Fastners) or equivalent of safe tensile capacity as specified below for brick work with expansion sleeve of A6 polyamide:		-	₹ -	₹ -	0.0000000%	
95	8mm Dia	Nos	5.00	₹ 71.14	₹ 355.70	0.0009245%	
96	10mm Dia	Nos	5.00	₹ 76.70	₹ 383.50	0.0009968%	
97	12mm Dia	Nos	5.00	₹ 75.59	₹ 377.95	0.0009824%	
98	14mm Dia	Nos	5.00	₹ 102.27	₹ 511.35	0.0013291%	
99	Expansion fasteners (mechanical galvanised) of HILTI make or equivalent of safe tensile capacity as specified below for concrete work with expansion sleeve of stainless steel		-	₹ -	₹ -	0.0000000%	
100	HST M8	Nos	2.00	₹ 145.62	₹ 291.24	0.0007570%	
101	HST M10	Nos	2.00	₹ 206.76	₹ 413.52	0.0010748%	
102	HST M12	Nos	175.00	₹ 365.72	₹ 64,001.00	0.1663486%	
103	HST M16	Nos	5.00	₹ 639.18	₹ 3,195.90	0.0083066%	
104	HST M20	Nos	60.00	₹ 1,295.04	₹ 77,702.40	0.2019607%	
105	HST M24	Nos	5.00	₹ 2,209.91	₹ 11,049.55	0.0287195%	
106	Chemical Expansion fasteners (galvanised)of HILTI make or equivalent of safe tensile capacity as specified below for concrete work with anchoring rod,nuts,washers,chemicals all complete,etc:		-	₹ -	₹ -	0.0000000%	
107	HAS-E5.8 M8	Nos	5.00	₹ 395.74	₹ 1,978.70	0.0051430%	

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108	HAS-E5.8 M10	Nos	5.00	₹ 466.88	₹ 2,334.40	0.0060675%	
109	HAS-E5.8 M12	Nos	5.00	₹ 630.29	₹ 3,151.45	0.0081911%	
110	HAS-E5.8 M16	Nos	5.00	₹ 1,057.15	₹ 5,285.75	0.0137385%	
111	HAS-E5.8 M20	Nos	5.00	₹ 1,706.34	₹ 8,531.70	0.0221752%	
112	HAS-E5.8 M24	Nos	5.00	₹ 2,222.13	₹ 11,110.65	0.0288783%	
113	GROUTING: Grouting including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, roughening surface, cleaning, ramming, curing etc. at all level , drawings and as directed by engineer - in - charge.		-	₹ -	₹ -	0.0000000%	
114	Providing & grouting with cement slurry mix of approved ratio using pressure pump for water retaining concrete structures as per approved procedure including cost of nipples/ nozzles, cement, admixture, curing, pressure pumps, slurry agitator etc. all complete. Cost shall include fixing of nipples at maximum 500 mm centre to centre spacing, cutting of nipples after completing of grouting, making good of the nipple hole with appropriate non-shrink cement paste, water tightness test etc. all complete wherever specified in the drawing.	SQM	1.00	₹ 471.33	₹ 471.33	0.0012251%	
115	Providing & grouting of pocket holes, pipe sleeves under base plates, machinery, pipe supporting structures etc. with mix 1:1 (1 cement :1 sand) using non shrink admixture etc. all Complete.	CUM	0.50	₹ 17,946.04	₹ 8,973.02	0.0233223%	
116	Providing & grouting of pocket holes, pipe sleeves and under base plate of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with mix 1:1:2 (1 cement : 1 coarse sand : 2 aggregate of 6 mm down graded stonechips) using non shrink admixture as per specification, drawing and direction of engineer-in-charge. (Cost of all material and cleaning the pocket by compressed air shall be in the scope of the contractor).	CUM	0.50	₹ 16,841.09	₹ 8,420.55	0.0218863%	
117	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with ConbextraGP-1 or equivalent as per specification, drawing and direction of engineer-in-charge. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	1.50	₹ 40,405.27	₹ 60,607.91	0.1575294%	
118	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing, etc. all complete with Conbextra GP-2 or equivalent as per specification, drawing and direction of engineer-in-charge.(Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	0.50	₹ 43,533.38	₹ 21,766.69	0.0565750%	
119	Providing Chemical (epoxy) injection grouting with pressure pump for water retaining concrete structures conforming to IS:6494, including fixing nozzles, cost of approved chemical, admixture, curing etc. all complet. Payment shall be made as per the consumption of chemical grout.	Kg	1.00	₹ 928.21	₹ 928.21	0.0024126%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
121	Providing brick work in cement mortar 1:6 (1 cement 6 coarse sand) in walls, chambers etc. in thickness 230mm at all heights, places and position above plinth including raking out joints, curing, scaffolding etc complete excluding plastering and painting		-	₹ -	₹ -	0.0000000%	
122	Using burnt clay bricks of class designation 7.5 of nominal dimensio	CUM	10.00	₹ 9,717.52	₹ 97,175.20	0.2525735%	
123	Breaking of existing brick work at all levels including plastering, removing the rubbish up to a distance of 500 m including transportation, loading, unloading etc. all complete as directed by the engineer.	CUM	5.00	₹ 1,125.30	₹ 5,626.50	0.0146242%	
124	PLASTERING: Cement mortar plaster including making grooves wherever required including all labour, material (unless otherwise specified in BOQ/contract specification), scaffolding, curing etc at all level as per specification, drawings and as directed by engineer - in - charge		-	₹ -	₹ -	0.0000000%	
125	Providing plain cement plaster in patchwork including repair of crakes in wall using water proofing compound cement mortar (1 cement:4/6 fine sand by volume) on masonry, PCC/ RCC including preperation of base, finishing, curing etc; also including providing 20 gauge chicken wire mesh stretched tight at all RCC/ PCC and masonry meeting points in 300mm wide strips (150mm on on each surface) fixed with G.I. "U" type nails before plastering.		-	₹ -	₹ -	0.0000000%	
126	Plain cement plaster with waterproofing compound conforming to IS-2645 (CICO/ approved equivalent) mixeto cement mortar @ 3% by weight, Average 12mm thick 1:4 (1 cement : 4 sand) Cement supplied by the Contractor at their cost.	SQ M	5.00	₹ 135.62	₹ 678.10	0.0017625%	
127	Plain cement plaster with waterproofing compound conforming to IS-2645 (CICO/ approved equivalent) mixe to cement mortar @ 3% by weight, Average 18mm thick 1:6 (1 cement : 6 sand) Cement supplied by the Contractor at their cost.	SQ M	5.00	₹ 194.53	₹ 972.65	0.0025281%	
128	FINISHES TO CONCRETE / PLASTERED SURFACES: Finishes, painting to concrete, plastered surfaces including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, surface preparation, scaffolding etc. at all level as per specification, drawings and as directed by engineer - in - charge.		-	₹ -	₹ -	0.0000000%	
129	providing 12mm wide x12mm deep rectangular grooves in plaster for architectural purposes, including all materials etc, complete as per specifications and directions of engineer	RM		₹ 41.28	₹ -	0.0000000%	
130	Providing and applying two or more coats over patchwork in walls including cleanning , making rough by rubbing , filling of cracks, repair of joints , leveling of old and new surface etc to give a smooth and even shad (matching with the exisitng wall paint) of premium plastic emulsion paint conforming to IS:5411 of approved make and shade including, repair of cracks, joint repair of old and new plaster surface cleaning and preperation of surface consisting of application of Plaster of Paris punning over entire surface, filling all holes and depressions with plaster of Paris, applying a coat of cement primer, two or more coats of oil based putty (as per manufacturer's recommendations to give a paste like putty), sandpapering etc. all complete.	SQ M		₹ 100.94	₹ -	0.0000000%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
131	Providing and applying two coats of Oil bound distempering over patchwork in walls including cleanning , making rough by rubbing , filling of cracks, repair of joints , leveling of old and new surface etc to give a smooth and even shade of approved quality and shade (matching with exisitng wall paint) conforming to IS : 428 including preparation of surfaces (making good of uneven plaster with plaster of paris mixed with water, sand papering), providing a priming coat of alkali resistant/ distemper primer including cleaning and preparation of surfaces etc. all complete.	SQ M		₹ 61.14	₹ -	0.0000000%	
132	Providing and applying textured wall coating system (granular/flakes type) in patchwork in walls including cleanning , making rough by rubbing , filling of cracks, repair of joints , leveling of old and new surface etc to give a smooth and even shade consisting of twin pack fine grade silica granules/ dry flakes made of special grade of china clay/ granite type flakes of 'Heritage' or equivalent in approved shade and texture; mixed in-situ with 100% acrylic polymer bonding agent; applied over plastered surfaces; the granules/ flakes etc., bonding material, mixing, method of application surface preperation etc. all shall be as per manufacturer's recommendations and specifications.	SQ M		₹ 601.72	₹ -	0.0000000%	
133	FLOORING AND SKIRTING: Flooring and skirting at all level including base layer, labour, material (unless otherwise specified in BOQ/contract specification), equipments, transportation, handling, curing, polishing etc. at all level as per specification, drawings and as directed by engineer - in - charge.		-	₹ -	₹ -	0.0000000%	
134	Repairing exisitng 25mm cement concrete flooring in patchwork and replacing the damaged flooring with new flooring including cleaning , crack filling, edge repair of old and new surface ,repire of base slab , removing th all layers till the trure base slab level , disposing of unservisable items at all applicable height and providing and laying new layers of average 25mm cement concrete flooring in panels consisting of base course of 1:2:4 grade cement concrete (6mm down size stone aggregate) laid over sub-base of cement concrete and finishing with a layer of floating coat of neat cement slurry @ 2.75kg. of cement per Sq. M. of area including cleaning the sub-base surface, applying neat cement slurry @ 2.75 kg of cement per Sq. M. of area over the sub- base to receive the base course, compacting, tamping, trowelling, finishing, curing, providing, shuttering to the edges, repairing the edges of damaged exisitng floor to achive leveled floor matching with exisitng floor level etc. all complete. CEMENT SUPPLIED BY THE CONTRACTOR AT THEIR COST	SQ M	15.00	₹ 393.51	₹ 5,902.65	0.0153419%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
135	Repairing existng heavy duty cement concrete flooring in patchwork and replacing the damaged flooring with new heavy duty concete floor including cleaning , crack filling, edge repair of old and new surface ,repire of base slab , removing the all layers till the trure base slab level , disposing of unservisable items at all applicabl height by providing and laying new layers of average 50mm thick heavy duty flooring in panels including , consisting of base course of 35mm thick cement concrete (1 cement : 1.5 coarse sand : 3.5 stone aggregates of 10mm to 6mm size by volume) laid over sub-base and 15mm thick finishing layer consisting of cement and integral hardening compound mixed in ratio of 4 cement :1 hardenar (by weight) :2 stone aggregrates of 6mm and down size laid integral with base course and finished smooth including cleaning the sub-base surface, applying neat cement slurry @2.75 Kg of cement per Sq.M of area over sub-base to receive the base course, levelling, tamping, trowelling, finishing, curing, joint repair, etc. all complete. CEMENT SUPPLIED BY TH CONTRACTOR AT THEIR COST.	SQ M E	15.00	₹ 576.93	₹ 8,653.95	0.0224930%	
136	Repairing patchwork in floor of exisitng stone flooring and replacing the damaged flooring with new kota ston slab including cleaning , crack filling, edge repair of old and new surface and repire of base slab , removing the all layers till the trure base slab level , disposing of unservisable items at all applicable heights and providing and laying with new machine cut chissel dressed 25mm thick kota stone slab (with tolerance + _2mm for thickness, + _2mm for length/ breadth) in flooring over average 15mm thick cement mortar 1:4(1 Cement :4 coarse sand by volume) of approved shade in flooring (matching with the exiting kota stone flooring)over and including a bed of cement mortar including preparing the base surface, applying neat cement slurry @ 2.7Kg of cement per Sq.M of area to receive the mortar, providing neat cement slurry @ 4.4kg. of cement /Sq.M of area over the mortar bed, jointing each slab with neat cement paste/ grouting white cement and pigment (conforming to IS : 2114, Table-1, matching the shade of slabs), machine cutting of the slab edges square, true & plumb finishing, grinding, polishing, finishing,joint repair of exisitng damaged kota stone flooring etc. all complete.CEMENT SUPPLIED BY THE CONTRACTOR AT THEIR COST.	SQ M		₹ 1,166.13	₹ -	0.0000000%	
137	Repairing patchwork in floor of exisitng floor tiles and replacing the damaged tiles with new tile including cleaning , crack filling, leveling of old and new surface and repire of base slab , removing the all layers till the trure base slab level , disposing of unservisable items at all applicable height and proviidng and laying new decorative, matt/ mirror finish homogeneous double charge Vitrified porcelain tiles of minimum size 600mm x 600mm x 10mm thicktiles in flooring , dado, skirting etc. in approved colour,design and pattern (matching wit the exiting floor tile) laid over and including a coating of approved adhesive as per manufacturers specifications, flush pointing of joints of tiles with cement paste/ grouting with white cement and pigment (conforming to IS:2114,Table-1, matching the shade of tiles) finishing, cleaning, joint repair of exisitng damaged tiles etc. all complete.	SQ M	10.00	₹ 2,119.82	₹ 21,198.20	0.0550974%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
138	Supplying, Providing and laying on pit wall 230mm THK Acid Resistant Brick lining (Class II), as per IS:4860, with 6mm thick joint (vertical & horizontal) of potassium silicate mortar as per IS:4832, Part-I & pointing exposed brick joints 20mm deep with resin based furane mortar as per IS:4832 Part-II and 50mm insulating castable (Composition: Al ₂ O ₃ (>=40%), Fe ₂ O ₃ (<=1%) as per EIL standard 6-79-0008 Type-I on concrete surface (to be lined), prior to brick lining, all complete at all levels including water seal NITOPROOF 100/120 or Equivalent on concrete surfaces. (SUPPLY OF ALL MATERIALS IN CONTRACTOR'S SCOPE).	SQM	-	₹ 3,410.46	₹ -	0.0000000%	
139	Supply and laying of acid resistant brick lining 230mm x 115mm x 38mm thick class-I tiles conforming to IS:4860, applying 3mm/6mm resin mortar/ silicate mortar as per IS:4832 part I/ part II on cement plaster surfaces /masonry/ RCC surfaces including applying one coat of bitumen primer, 19mm thick bitumen mastic and any other materials, finishing, curing, testing including supply of all materials etc. complete as per drawings specifications and directions of Engineer-in-charge.	SQM		₹ 3,751.51	₹ -	0.0000000%	
140	Supplying, Providing and laying 50mm THK foam glass with 3 layers of Pittcote 300 coated over PC fabric 79 or equivalent lining all complete as per drawing & specification on outer surface of Sulphur pit including bottom slab.	SQM	10.00	₹ 313.25	₹ 3,132.50	0.0081419%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks	
141	<p>Providing and installing/ fixing in position 600mm-1000mm high truly levelled and aligned cavity/ false flooring system having load bearing capacity of uniformly distributed load of minimum 2025 kg/ sq.m. and point load of 675 Kg., the system consisting of:</p> <p>(i) Sub-structure/ pedestal assembly (designed for speedy assembly/ removal for relocation/ maintenance) of zinc electro plated steel comprising of:</p> <p>a. 90mm x 90mm x 4mm embossed pedestal head attachment mechanically riveted to a 90mm long, minimum 19mm dia threaded bright M.S. rod stud with check nuts for level adjustment (for upto 25mm) and arresting vertical movement, anti-vibrational PVC cap (for panel and stringer location),</p> <p>b. CRCA (Electrical resistant welded) Pedestal of 32mm dia (OD), 2mm thick pipe mechanically reduced to four ribs at top to accommodate head assembly, mechanically locked to maintain true plumb welded to pedestal base plate.</p> <p>c. Pedestal Base plate 150mm x 150mm x 4mm thick (with stiffening folds) fixed/ anchored to main concrete floor @ 600mm c/c both ways (for installing flooring tiles) by means of adhesive or fastener as recommended by Manufacturer.</p> <p>(ii) Stringers of minimum sectional size 20mm x 32mm x 1.2mm made of hot dip galvanized steel cold rolled construction with ribs embossed on 3 sides (designed for strength, lateral stability, rolling loads and to support panels on all four sides for alignment), having counter sunk holes at both ends for fixing to pedestal head assembly with M6 machine screws.</p> <p>(iii) Removable and re-usable Floor panels of size 600mm x 600mm made of all steel welded construction (cleaned, degreased and phosphated with 11 tank process, finished with 40-60 micron epoxy coating (and, heated to achieve adhesion to the panel surface and corrosion resistance) with bottom surface consisting of multiple hemispherical and reverse cones and top plain sheet (fuse welded at 129 locations) to form an enclosed panel of an overall depth 37mm; the inner empty core of the panel injected with light weight fire retardant, non-combustible cementitious compound (at high pressure to fill all crevices of the panel), each panel finished on top with 2mm thick fire retardant floor grade high pressure laminate/ 2mm thick anti-static PVC tiles in approved design/ shade/ texture: fixed to flooring panel by means of approved</p>		-	₹	-	₹	-	0.0000000%

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks	
142	<p>Providing and installing/ fixing in position 600mm-1000mm high truly levelled and aligned cavity/ false flooring system having load bearing capacity of uniformly distributed load of minimum 2025 kg/ sq.m. and point load of 675 Kg., the system consisting of:</p> <p>(i) Sub-structure/ pedestal assembly (designed for speedy assembly/ removal for relocation/ maintenance) of zinc electro plated steel comprising of:</p> <p>a. 90mm x 90mm x 4mm embossed pedestal head attachment mechanically riveted to a 90mm long, minimum 19mm dia threaded bright M.S. rod stud with check nuts for level adjustment (for upto 25mm) and arresting vertical movement, anti-vibrational PVC cap (for panel and stringer location),</p> <p>b. CRCA (Electrical resistant welded) Pedestal of 32mm dia (OD), 2mm thick pipe mechanically reduced to four ribs at top to accommodate head assembly, mechanically locked to maintain true plumb welded to pedestal base plate.</p> <p>c. Pedestal Base plate 150mm x 150mm x 4mm thick (with stiffening folds) fixed/ anchored to main concrete floor @ 600mm c/c both ways (for installing flooring tiles) by means of adhesive or fastener as recommended by Manufacturer.</p> <p>(ii) Stringers of minimum sectional size 20mm x 32mm x 1.2mm made of hot dip galvanized steel cold rolled construction with ribs embossed on 3 sides (designed for strength, lateral stability, rolling loads and to support panels on all four sides for alignment), having counter sunk holes at both ends for fixing to pedestal head assembly with M6 machine screws.</p> <p>(iii) Removable and re-usable Floor panels of size 600mm x 600mm made of all steel welded construction (cleaned, degreased and phosphated with 11 tank process, finished with 40-60 micron epoxy coating (and, heated to achieve adhesion to the panel surface and corrosion resistance) with bottom surface consisting of multiple hemispherical and reverse cones and top plain sheet (fuse welded at 129 locations) to form an enclosed panel of an overall depth 37mm; the inner empty core of the panel injected with light weight fire retardant, non-combustible cementitious compound (at high pressure to fill all crevices of the panel), each panel finished on top with 2mm thick fire retardant floor grade high pressure laminate/ 2mm thick anti-static PVC tiles in approved design/ shade/ texture: fixed to flooring panel by means of approved</p>		-	₹	-	₹	-	0.0000000%

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
143	<p>Providing and installing/ fixing in position 600mm-1000mm high truly levelled and aligned cavity/ false flooring system having load bearing capacity of uniformly distributed load of minimum 2025 kg/ sq.m. and point load of 675 Kg., the system consisting of:</p> <p>(i) Sub-structure/ pedestal assembly (designed for speedy assembly/ removal for relocation/ maintenance) of zinc electro plated steel comprising of:</p> <p>a. 90mm x 90mm x 4mm embossed pedestal head attachment mechanically riveted to a 90mm long, minimum 19mm dia threaded bright M.S. rod stud with check nuts for level adjustment (for upto 25mm) and arresting vertical movement, anti-vibrational PVC cap (for panel and stringer location),</p> <p>b. CRCA (Electrical resistant welded) Pedestal of 32mm dia (OD), 2mm thick pipe mechanically reduced to four ribs at top to accommodate head assembly, mechanically locked to maintain true plumb welded to pedestal base plate.</p> <p>c. Pedestal Base plate 150mm x 150mm x 4mm thick (with stiffening folds) fixed/ anchored to main concrete floor @ 600mm c/c both ways (for installing flooring tiles) by means of adhesive or fastener as recommended by Manufacturer.</p> <p>(ii) Stringers of minimum sectional size 20mm x 32mm x 1.2mm made of hot dip galvanized steel cold rolled construction with ribs embossed on 3 sides (designed for strength, lateral stability, rolling loads and to support panels on all four sides for alignment), having counter sunk holes at both ends for fixing to pedestal head assembly with M6 machine screws.</p> <p>(iii) Removable and re-usable Floor panels of size 600mm x 600mm made of all steel welded construction (cleaned, degreased and phosphated with 11 tank process, finished with 40-60 micron epoxy coating (and, heated to achieve adhesion to the panel surface and corrosion resistance) with bottom surface consisting of multiple hemispherical and reverse cones and top plain sheet (fuse welded at 129 locations) to form an enclosed panel of an overall depth 37mm; the inner empty core of the panel injected with light weight fire retardant, non-combustible cementitious compound (at high pressure to fill all crevices of the panel), each panel finished on top with 2mm thick fire retardant floor grade high pressure laminate/ 2mm thick anti-static PVC tiles in approved design/ shade/ texture: fixed to flooring panel by means of approved</p>		-	₹ 1,419.07	₹ -	0.0000000%	
143	False flooring panels with minimum 10mm thick polished mirror or mat finished vitrified tiles in approved design/ shade/ texture	SQ M		₹ 8,486.26	₹ -	0.0000000%	
144	Providing & laying 20mm dia. ceramic Fiber Rope coated with Shalijet Sealing Compound or equivalent for complete sealing of RCC precast cover slabs in sulphut pit after erection of internals all complete as per drawing, specification and direction of engineer-in-charge.	RM	200.00	₹ 162.46	₹ 32,492.00	0.0844518%	
145	Providing & laying 20mm wide & 25mm thick layer of Shalijet Sealing Compound or equivalent at top of ceramic fiber rope for complete sealing of RCC precast cover slabs in sulphut pit after erection of internals all complete as per drawing, specification and direction of engineer-in-charge.	RM	200.00	₹ 154.68	₹ 30,936.00	0.0804075%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
147	Designing, providing, erection and fixing permanently color coated galvanised MS troughed metal sheet decking plate of approved colour and conforming to class3 of IS 14246 over roof purlins for cast-in-situ roof slab as per relevant IS code and specification. Bare metal thickness of deck plate shall be minimum 0.7mm with minimum trough depth of 44 mm having minimum yield strength of 250 MPa and shall serve as permanent shuttering to the roof slab 100mm thick measured over crest of metal decking & shall have adequate strength to support weight of green concrete and imposed loads of min 150 kg/sqm during construction between purlins as per manufacturer's recommendations/ calculations/ test certificates for approval including fixing of plates to purlins, side lapping, end lapping etc. all complete for below mentioned spans. The sheet shall be permanently coated with silicon modified polyster paint of minimum 20 micron DFT on exposed surface (facing operating floor) and minimum 7 micron on other face over epoxy primer applied over hot dipped galvanising @ 275 gm/sqm including fixing of sheet to purlin with self drilling white zinc plated heat treated carbon steel screws of minimum 5.6 mm dia @ 260mm c/c in the trough and stich screws between two adjacent sheets and sealing with epoxy sealant. Measurement of profile sheeting shall be of the plan area of roof covered by MS trough metal decking.		-	₹ -	₹ -	0.0000000%	
148	Span Upto 1800mm	SQM		₹ 1,338.39	₹ -	0.0000000%	
149	Span Exceeding 1800mm and upto 2500 mm	SQM		₹ 1,338.39	₹ -	0.0000000%	
150	Designing, providing and fixing External sheet of Permanent colour coated metal cladding with troughed M.S. sheets of 0.8mm bare metal thickness having minimum yield strength 250 MPa and zinc-aluminium alloy coating not less than 275 gm/sqm total on both sides including fixing to supports / rails by concealed fixing system, corrosion resistant self tapping / self drilling type fasteners with suitable cap, flashing etc. all complete The exposed face of the sheet shall be permanently colour coated with Polyfluro Vinyl Coating (PVF2) of minimum dry film thickness (DFT) 20 microns over suitable primer. Inner face of the sheet shall be provided with suitable pre-coating of minimum DFT 7 microns over suitable primer. The permanent colour coated sheet shall meet the general requirements of IS : 14246 and shall conform to class 3 for the durability.	Sqm		₹ 1,183.42	₹ -	0.0000000%	
152	Supplying and laying of stone aggregate of 63mm down to 45mm size for WBM layer Base Course, tough, sound, clean and durable including cost of stone aggregate, all royalties, taxes, handling, transportation to site, unloading the same by the side of road with all leads and lifts, spreading and laying to form water bound macadam in one layer of 75mm compacted thickness to proper grade, camber and level, filling voids with screenings and binding material of plasticity index upto 6%, including cost of supply of screening and binding material, consolidating with power driven road roller, watering, with all leads and lifts etc. complete as per drawings, specifications and directions of Engineer-in-Charge.	SQM	1,000.00	₹ 1,952.94	₹ 19,52,940.00	5.0759960%	

[illegible]

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
157	<p>Supply and laying of vermiculite based lightweight cementitious concrete coating corresponding to 3 hours fir rating as per respective UL design number under UL-1709 (XR category) subject to a minimum of 30mm thickness as per Type-III of Standard Specification 080557C-000-JSS-1800-003 as fire proofing material of required thickness on equipment/ vessel skirts, saddles and supports for the required fire protection from reaching temperature 427 degree C; cleaning the steel surfaces and applying primer compatible to vermiculite material if required as per manufacturer specifications, supplying, placing and fixing in position cover plates conforming to IS:2062, hot dipped galvanized welded wire fabric reinforcement of 2 mm dia 50 mm x 50 mm mesh conforming to IS:1566 and tying the reinforcement with the pre welded nuts by galvanized 16 SWG</p> <p>tying wire, including straightening, cutting, bending of the reinforcement, including supplying and welding of additional MS nuts if directed by the Engineer-in-charge, applying primer wherever required, curing or providing a layer of approved membrane of curing compound, patching of damaged portion wherever required to achieve a smooth and even surface, providing chamfering at corners, supplying and laying of non- bituminous polysulfide or silicon rubber mastic sealant at terminating edges/ metal joints, painting the surfaces with sealer coat of epoxy polyamide as base and finish coats of coating system No.1 of NORSOK Standard M-501, including the cost of all labour, materials, specified tests, shuttering, staging, scaffolding, working platforms, approaches, etc. for all shapes and positions. all complete as per specifications 080557C-000-LD-1790-001, 080557C-000-JSS-1800-003 and directions of Engineer-in-Charge. (ALL MATERIALS SHALL BE SUPPLIED BY THE CONTRACTOR).</p>	c					
		SQM		₹ 75,075.68	₹ -	0.0000000%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
158	Supply and laying of concrete of grade M30 as per Type-I of Standard Specification 080557C-000-JSS-1800-003 as fire proofing material with 10 mm and down size graded coarse and fine aggregates including admixtur around structural steel members (viz. beams, columns, bracings etc.) minimum thickness 65mm all complete; cleaning the steel surfaces, supplying, placing and fixing in position cover plates conforming to IS:2062 and stiffeners for members exceeding 600 mm depth, supply and welding of MS nuts on angle and box sections and cover blocks for other sections, supplying, placing and fixing in position galvanized expanded metal sheet with mesh size 4.5 mm x 13.5 mm conforming to IS:412 except on angle and box sections, hot dipped galvanized welded wire fabric reinforcement 2 mm dia 50 mm x 50 mm mesh conforming to IS:1566, and tyin the reinforcement to the cover blocks with galvanized 16 SWG tying wire, including cutting, straightening, cleaning, bending, vibrating, tamping, curing or providing a layer of approved membrane of curing compound, rendering with cement sand mortar (1:3) wherever required to achieve a smooth and even surface, providing L50x50x6 at corners or as specified in the drawing, applying primer on MS nuts, angles and affected surfaces, supplying and laying of non-bituminous polysulfide or silicon rubber mastic sealant at terminating edges/ meta joints, painting the surfaces with sealer coat of epoxy polyamide as base and finish coats of coating system No.1 of NORSOK Standard M-501, including the cost of all labour, materials, specified tests, shuttering, staging, scaffolding, working platforms, approaches, etc. for all shapes and positions at all heights upto & including 10 m above pavement etc. all complete as per specifications 080557C-000-LD-1790-001, 080557C-000-JSS-1800-003 and directions of Engineer-in-Charge. (ALL MATERIALS INCLUDING CEMENT TO BE SUPPLIED BY THE CONTRACTOR).	CUM 1		₹ 7,798.03	₹ -	0.0000000%	
159	Providing & Laying 20micron thick polythene sheet below the concrete base including materials, labour etc. complete as per drawing / direction of engineer.	SQM	500.00	₹ 22.23	₹ 11,115.00	0.0288896%	
160	Supplying and filling sand gravel mix (1:1) with approved aggregate below road, RCC pavement, manholes, pits, foundations, bedding of UG piping etc. in layers of 150 mm loose thickness (maximum) including watering, ramming, rolling, compacting to achieve 85% relative density as per IS 2720 Part-XIV, quarrying, royalties, transportation, handling, etc. all complete as per drawings, specifications and directions of Engineer- in-Charge. (The rate shall be inclusive of the cost of all labour, material, equipment etc. all complete)	CUM	1,000.00	₹ 5,327.64	₹ 53,27,640.00	13.8473684%	
161	Providing & fixing flame arrestor of approved specification at the end of vent pipes upto 160 mm dia in OWS vent pipe, Oily water manholes in hazardous zone of refinery area.	each	5.00	₹ 27,763.49	₹ 1,38,817.45	0.3608082%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
162	Supplying and laying of Tensar Geogrid SS-40 or equivalent below roads, RCC pavements, manholes, in pipe trenches, culverts, foundations, hard stand etc. including overlap length, royalties, taxes, handling, transportation, unloading, storage, etc. all complete as per drawings, manufacturers specification and direction of Engineer-in-Charge.	Sqm	300.00	₹ 452.08	₹ 1,35,624.00	0.3525080%	
163	Supplying and laying of Geotextile Terram 1000 or equivalent for hard stand, road, RCC pavement, foundation etc. as directed by the Engineer-in-charge including royalties, taxes, handling, transportation, unloading, storage, stretching, joining, lapping, sewing etc. all complete as per drawing, manufactures specification and direction of the Engineer-in-charge. (The rate shall be inclusive of cost of all labour, material, equipment etc., all complete).	Sqm	20.00	₹ 136.20	₹ 2,724.00	0.0070801%	
164	Providing and applying approved EPOXY RESIN (prepared as per manufacturer's recommendation) for bonding of fresh concrete to old concrete in all types of structure at all depths and heights including cleaning o concrete surface, removing of all loose concrete pieces, making rough by chiselling, taking off the skin of concrete, application of Epoxy Resin System by spraying, necessary working platforms, props, scaffolding and other safety measures, removal of same after completion etc. all complete as specified and directed. (Excavation, backfilling, removal of surplus earth, keeping pit dry by pumping/bailing subsoil water shall be paid separately under relevant items).	KG	10.00	₹ 159.68	₹ 1,596.80	0.0041503%	
165	Conducting underground survey including establishment of base line for defining the co-ordinates of the various areas, mapping of location, elevation, properties, and size of underground pipeline/ piping, found electrical and instrumentation cables, civil and structural foundations, piles, manholes, tunnels and other utilities (metallic and non-metallic) including, locating the change in direction of the facility using Ground Penetration Radar (GPR), preparation of surveys maps, preparation of two dimensional (2-D)/ three dimensional (3-D) AutoCAD file for the underground services all complete as per specification and instructions of the engineer-in-charge.	SQM		₹ 24.13	₹ -	0.0000000%	
166	Digging trial pits, casting test block vibration and wave propagation tests as per specification no. 080557C-000 JSS-1422-002 all complete, inclusive of earth work, concrete, equipment etc. including back filling after tests.	Nos		₹ 1,02,468.26	₹ -	0.0000000%	
168	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cemen mortar 1:2 including testing of joints etc all complete for following.			₹ -	₹ -	0.0000000%	
169	250mm dia	RM	20.00	₹ 1,369.52	₹ 27,390.40	0.0711919%	
170	350mm dia	RM	20.00	₹ 1,806.39	₹ 36,127.80	0.0939018%	
171	450mm dia	RM		₹ 2,408.89	₹ -	0.0000000%	
172	Supplying and fixing in position heavy duty CI manhole frame with lugs and cover conforming to IS-1726 including breaking of brick masonry or concrete surface to receive frame with lugs and making good the same with CM 1:3 including applying two coats of anticorrosive paint inclusive of all labours and materials etc. complete. circular size 560 mm dia Heavy duty of grade HD-20	NOS	2.00	₹ 13,017.10	₹ 26,034.20	0.0676670%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
174	Supply of all materials, fabrication and erection in position, mesh, funnels, clean outs, plugs, etc. including the cost of cutting, bolting/welding etc. complete as per drawings, specifications and direction of Engineer-in- Charge.	KG	20.00	₹ 78.45	₹ 1,569.00	0.0040781%	
175	Extra for item no 2301-A: Providing and applying paint with two coats of chlorinated rubber zinc phosphate primer @ 40μ DFT per coat and finish painting consisting of 2 coats of chlorinated rubber paint @ 40μ DFT per coat, etc. complete as per drawings, specifications and direction of Engineer-in-Charge.	Sqm		₹ 206.87	₹ -	0.0000000%	
176	Supplying, fabrication, erection and alignment of factory made galvanised welded grating units with mild steel conforming to IS:2062 in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. including 2 coats of redoxide zinc-chromate primer (one coat at shop and one coat after erection), fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete.	MT	3.00	₹ 83,170.52	₹ 2,49,511.56	0.6485195%	
177	Providing and fixing in positing of high strength structural bolts (of property class 8.8 and product grade 'C' as per IS: 1367) and conforming to IS: 3757 and high strength structural hardened and tempered nuts (of property class '8' as per IS:1367) conforming to IS:6623 with hardened and tempered washers as per IS:6649 etc. up to and inclusive of 39 mm diameter and upto 300 mm long for structural steel work etc all complete.	KG	50.00	₹ 152.29	₹ 7,614.50	0.0197913%	
178	Dismantling of steel structure, lowering of material and carriage of the dismantled material up to field fabrication shop / projects storage including temporary dismantling, cutting, re-welding, supporting, and restoring to correct position all temporarily dismantled members, re- alighment of all adjacent connected members to their correct positions (weight of such adjacent members and temporarily dismantled members no payable), scaffolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.	MT	2.00	₹ 8,725.32	₹ 17,450.64	0.0453569%	
179	Addition to, alterations in and/or modifiction of "Erection Marks" including cutting of parts, gauging of welds, cutting, grinding, fabrication, welding, drilling holes, straightening, removal of bends, raising to the required level, painting, transportation, return of unutilised steel pieces to the project store, temporarily dismantling, cutting, re-welding, supporting and restoring to correct position of all the temporarily dismantled members, realignment of adjacent connected members (weight of such temporarily dismantled and adjacent members not payable) etc all complete for the following:		-	₹ -	₹ -	0.0000000%	
180	In erected position	MT		₹ 20,824.13	₹ -	0.0000000%	
181	In fabrication yard	MT		₹ 17,744.67	₹ -	0.0000000%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
182	Re-erection of dismantled fabricated structural steel members including carriage of modified "Erection Marks" from the field fabrication shop to erection site, lifting to required position, aligning in position, tack welding, final welding and touch up painting including temporary dismantling and re-erection of temporarily dismantled members, cutting, rewelding, supporting and restoring to the correct position of all temporarily dismantled members, re-alignment of adjacent connected members(weight of such temporarily dismantled members and adjacent members not payable), scaffolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.	MT		₹ 14,426.85	₹ -	0.0000000%	
184	Consolidating subbase before providing stone soling/ WBM with road roller including watering, if required to obtain 95% maximum lab dry density as per IS 2720 Part-VIII including making good undulation etc all complete as per drawing and specifications	SQM	4,536.00	₹ 21.01	₹ 95,301.36	0.2477031%	
185	Supplying and filling with selected good earth of approved quality (having plasticity index less than 12) in layers not exceeding 300 mm loose thickness using borrowed soil (borrowed soil to be arranged by the bidder) and compacted so as to achieve at least 95 % maximum laboratory dry density as per IS-2720 (Part-VIII) including royalty/seignorage fee (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing etc all complete.	CUM	100.00	₹ 238.37	₹ 23,837.00	0.0619561%	
186	Providing & laying water bound macadam sub base course in layers of required thickness with crushed stone aggregates 90 to 45 mm down size (IRC 19 - grading -1), stone screening & blinding material including screening, sorting, spreading to template & consolidation with road roller including carriage, spreading & consolidation of blinding material moorum etc all complete.	CUM	80.00	₹ 3,143.58	₹ 2,51,486.40	0.6536524%	
187	Providing & laying water bound macadam base course in layers of required thickness with stone aggregate 63mm to 45mm size(IRC 19 - grading -2), stone screening and blinding material including screening sorting, spreading to template and consolidation with road roller including carriage, spreading and consolidation of blinding material moorum etc all complete.	CUM	80.00	₹ 3,329.92	₹ 2,66,393.60	0.6923986%	
188	Dismantling of existing road consisting of premix carpet, kerb stone/ brick on edge, bitumen macadem course, WBM, prepairing subgrade to receive new WBM including camber consolidation including disposal of debris within a lead of 1 km etc all complete.	SQM		₹ 128.82	₹ -	0.0000000%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
190	Design, Supply and installation of hot rolled steel sheet piles including all associated structural steel members i.e. waler & runner beams, strut, cross ties, vertical members, guide frames, suitable interlocks, suitable corner sections, splicing & cutting sheet piling, application of recommended sealant for complete water tightness (as required), pre-drilling for installation into bedrock (as necessary) etc. as per site conditions, mobilization/ demobilization of all necessary tools & tackles, hammer (vibratory/ impact), crane(s) etc., all labor, shifting plant/ machinery & carryout any ancillary works and subsequent removal after completion of works, all complete as per Scope of Work/ Specifications, relevant Codes/ Standards, approved design/ drawings/ method statement and directions of Engineer-in-charge. (No extra payment shall be made for cost of extraction and replacement for installing of sheet pile deviating the specification or rejected by Engineer-in-charge. Extracted sheet piles shall be contractor's property and contractor shall remove the same from site without any extra cost to client). Payment shall be on the basis of sheet pile shoring area exposed after complete excavation.	Sqm		₹ 10,078.48	₹ -	0.0000000%	
192	Cutting of trees having girth more than 300 mm measured at a height of 1m above ground level including removal of roots, stacking the serviceable material like trunks, branches etc at specified area within the plant boundary and disposal of unserviceable parts/materials within a lead upto 1km etc all complete.		-	₹ -	₹ -	0.0000000%	
193	300 mm upto 600 mm girth	Nos		₹ 264.99	₹ -	0.0000000%	
194	601 mm upto 1200 mm girth	Nos		₹ 1,182.17	₹ -	0.0000000%	
195	1200mm and above.	Nos	2.00	₹ 5,494.62	₹ 10,989.24	0.0285628%	
196	Earth work in stripping of top soil upto a maximum depth of 0.30m below ground level so as to exclude all debris, grass, vegetation, bushes, trees having girth upto 300 mm including roots and organic materials etc for leveling and grading including dressing to specified levels & grades and compacting the graded/stripped surface by manual/mechanical means, disposal of stripped materials within a lead upto 1km etc all complete as per specification, drawing and as directed by the engineer-in-charge.	SQM	7,068.00	₹ 19.36	₹ 1,36,836.48	0.3556594%	
197	Earth work in excavation upto any depth below ground level in all types of soil including moorum, ash which can be excavated by any means for grading including setting out, levelling, dewatering (wherever required), dressing the sides & bottom, levelling to grade, all lifts, ramming/compacting the excavated bottom/graded surface, stacking/disposal of surplus excavated materials within a lead upto 1km, spreading/levelling of disposed materials etc all complete as per specification, drawing and as directed by the engineer-in-charge. Page 13 of 15	CUM	706.80	₹ 76.23	₹ 53,879.36	0.1400409%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
198	Earth work in excavation upto any depth below ground level in soft rock (rock without any recovery of excavated materials in the form of hard stone/boulder) including weathered rock which can be excavated by means of crow bar, pick axe, pneumatic rock breaker attachment with excavator machine etc (but does not require chiselling or blasting) for grading including setting out, levelling, dewatering (wherever required), dressing the sides & bottom, all lifts, ramming/compacting the excavated bottom, stacking/disposal of surplus excavated materials within a lead upto 1km, spreading/levelling of disposed materials etc all complete as per specification, drawing and as directed by the engineer-in-charge.	CUM	10.00	₹ 134.31	₹ 1,343.10	0.0034909%	
199	Earth work in filling upto any depth below ground level for grading to proper grade and level in layers not exceeding 300mm loose thickness so as to achieve at least 95% maximum dry density as per IS-2720 (Part- VII) with selected approved soil/soft rock directly from excavation within a lead upto 1km and compacted as specified including dewatering if required, sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing etc all complete a per specification, drawing and as directed by the engineer for the following.	CUM	50.00	₹ 44.77	₹ 2,238.50	0.0058182%	
200	Earth work in filling upto any depth below ground level for grading to proper grade and level in layers not exceeding 300 mm loose thickness so as to achieve at least 95% maximum dry density as per IS-2720 (Part- VII) with approved borrowed soil (borrowed soil to be arranged by the bidder) and compacted as specified including supplying boorowed soil, royalty/seignorage fee (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing, all lead and lifts etc all complete as per specification, drawing and as directed by the engineer for the following.	CUM	1,000.00	₹ 249.26	₹ 2,49,260.00	0.6478657%	
201	Micrograding of the area as directed to proper level, grade and camber including earthwork in excavation in all types of soils up to a maximum depth of 150mm, removing shrubs, vegetation bushes, grass etc., earth work in filling with select material from available earlier excavated soil and borrow earth (in case the select material from excavated soil is short for filling, filling shall be done with borrow earth, supply & transportation of borrow earth shall be paid separately under relevant item) up to a maximum compacted thickness of 150mm b spreading in layers not exceeding 20cm loose thickness, watering, ramming & compacting with road roller or hand roller including hand ramming where road rollers or hand rollers are not accessible to give at least 90% o max. laboratory dry density as per IS:2720 part VII, including transportation, leveling, dressing, disposal of surplus earth, debris, etc. all complete as per specifications, drawings and direction of Engineer-in-charge. (Disposal areas shall be anywhere within the plant complex limit as identified by Engineer-in-Charge.)	CUM	15.00	₹ 249.26	₹ 3,738.90	0.0097180%	

S. No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Tender Amount (in Rs.)	Weightage %	Remarks
202	Constuction, installation, testing and commissioning of GI earth electrodes, complete with earth pit as per typical installation drawing no.(Drg No:080557C001-000-STC-1691-001, sheet 6 of 30)) and all necessary materials including excavation of earth pit, filling with charcoal and salt, back filling,providing necessary brickwork, connections, including all labour and materials, as per approved drawings,specifications of this tender and directions of Engineer-in-Charge. Note: Only G.I Earth Electrode (i.e 65mm dia,6000mm long-G.I Pipe Electrode) with funnel and earth plate, G.I Strip shall be free issue by BHEL. All other items as per referred in the drawings shall be supplied by bidder.	Nos	15.00	₹ 12,135.11	₹ 1,82,026.65	0.4731157%	
203	Installation and connection of following GI earthing strip (50x6mm, 40x5mm, 25x3mm) buried individually at a depth of 500 mm including welding at joints, providing anti-corrosive paint or bitumen and jute covering for welded portion, bringing of risers(as per approved drawing) upto 300mm above FGL,clamping and necessary hardware for connecting, excavation and refilling etc., including all labour and materials, as per approved drawings, specifications of this tender and directions of Engineer-in-Charge. Note: Only Earthing strips shall be supplied by BHEL free of cost and all other items required shall be by bidder.	mt	4.00	₹ 8,653.93	₹ 34,615.72	0.0899717%	
204	Providing, laying light duty non pressure NP2 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc all complete for following		-	₹ -	₹ -	0.0000000%	
205	200 mm NB as per IS:458	RM	10.00	₹ 462.67	₹ 4,626.70	0.0120255%	
206	150 mm NB as per IS:458	RM	10.00	₹ 420.61	₹ 4,206.10	0.0109323%	
207	100 mm NB as per IS:458	RM	10.00	₹ 381.50	₹ 3,815.00	0.0099158%	
208	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc all complete for following.		-	₹ -	₹ -	0.0000000%	
209	200 mm NB as per IS:458	M	10.00	₹ 494.78	₹ 4,947.80	0.0128601%	
210	Supply, laying and positioning of second- class country made Bricks in the cable trench	Nos	1,000.00	₹ 10.37	₹ 10,370.00	0.0269532%	
211	Supplying and fixing M.S drain funnels and Strainer of following diameter as per 'STANDARD DETAIL FOR DRAIN FUNNEL' of 080557C-000-LD-1490-001_C and specifications.		-	₹ -	₹ -	0.0000000%	
212	150mm dia.	NOS.	5.00	₹ 1,254.95	₹ 6,274.75	0.0163091%	
213	200mm dia.	NOS.	5.00	₹ 1,662.98	₹ 8,314.90	0.0216117%	
214	Supplying and fixing 4" dia. Vent pipes of piping class A17A in manholes including fixing the pipe on piperacks at various elevations, necessary clamps, bends, screws etc. all complete as per specification no.080557C-000-JSD-1300-002 & drawings.	RM.	10.00	₹ 1,680.55	₹ 16,805.50	0.0436801%	
215	Supplying and fixing CS Gate valve of 150 lbs rating for piping class A17A of following diameter as per as pe specification no. 080557C-000-JSD-1300-002 and drawings.		-	₹ -	₹ -	0.0000000%	
216	400 mm (16") dia. NB	NOS.	-	₹ 2,31,761.85	₹ -	0.0000000%	
217	500 mm (20") dia. NB	NOS.	1.00	₹ 3,11,155.15	₹ 3,11,155.15	0.8087408%	

[illegible]