



TENDER DOCUMENT

NIT No: SRO/CON/ETS/265 Dated 20.11.2024

Civil and Finishing works for Port control Tower for the project of Provision of Administrative and Logistic Infrastructure under WP-07 and WP-5b At Naval Station Rambilli Visakhapatnam – Civil Works 02A - Retender

VOLUME – III

Price schedule

**TENDER INVITING AUTHORITY
Engineering Projects (India) Limited
(A GOVT. OF INDIA ENTERPRISE)
Southern Regional Office
3D, EC Chambers, 92, G.N. Chetty Road
T. Nagar, Chennai – 600 017**

ENGINEERING PROJECTS (INDIA) LTD
SOUTHERN REGIONAL OFFICE, CHENNAI

Name of work : Civil and Finishing works for Port control Tower for the project of Provision of Administrative and Logistic Infrastructure under WP-07 and WP-5b At Naval Station Rambilli Visakhapatnam – Civil Works 02A - Retender		
Summary		
sl.no.	description of works	Amount (Rs.)
1	(A)Civil and Finishing Works	1,22,72,467.25
2	(K)Electrical Work	7,71,017.61
3	(L)Water Supply	3,85,354.81
	Total Amount	1,34,28,839.67
	Say	1,34,28,840.00

BILL of Quantity

Name of the work : Civil and Finishing works for Port control Tower for the project of Provision of Administrative and Logistic Infrastructure under WP-07 and WP-5b At Naval Station Rambilli Visakhapatnam – Civil Works O2A - Retender

Sl. No.	Description of Item	UNIT	Rate excluding GST IN Rs	Quantity	Amount in Rs
(A)	Civil and Finishing Works				
1	Site clearance and Surface excavation n.exc (not exceeding) 30 cm deep and averaging 15cm deep and getting out	Sq.m	59.66	150.660	₹ 8,988.38
2	Surface dressing of the ground including removing vegetation and in equalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m	Sq.m	22.80	190.400	₹ 4,341.12
3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.	Cu.m	141.20	135.235	₹ 19,095.18
3a	Excavation work by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Ordinary rock	Cu.m	422.37	324.000	₹ 1,36,847.88
4	Returning, filling in, including spreading, levelling, watering and well ramming in layers not exc 25 cm. Soft/loo- soil	Cu.m	117.88	316.116	₹ 37,263.75
5	Granural sub base, under floors or in foundations including watering and consolidation				
a	Shingle or gravel (50mm Thick)	Sq.m	613.98	8.133	₹ 4,993.50
b	Moorum/Red bajri (50mm Thick)	Sq.m	371.53	8.13	₹ 3,020.54
c	Sand (50mm Thick)	Sq.m	371.53	8.133	₹ 3,021.65
6	M& L Treating the backfill in contact with foundation at the rate of 7.5 litres of emulsion per square metre of vertical surface (Area of the sub structure in contact with backfill to be measured)	Sq.m	103.22	186.381	₹ 19,238.25
7	M& L Treating the top surface of filled earth at the rate of 5 litres of emulsion per square metre of surface	Sq.m	56.61	81.330	₹ 4,604.09
8	M& L Treating the soil under plinth protection at the rate of 5 litres of emulsion per square metre of surface area	Sq.m	56.61	41.225	₹ 2,333.75
9	M& L Treating the soil along with external perimeter of building at the rate of 2.25 litre of emulsion per metre of the perimeter wall	Rm	28.14	41.225	₹ 1,160.07
10	M& L Plain Cement Concrete (PCC) 1:4:8 type D-2 (using 40mm grade Granite Stone aggregate) as in foundation filling & mam concrete.	Cu.m	4,646.69	121.876	₹ 5,66,319.99
11	M&L for Reinforce Cement Concrete for plinth protection with 1:3:6 - M10 (1 Cement : 3 Sand : 6 Coarse Aggrigate) and complete as per specifications and as per directions of Engineer-in-charge	Cu.m	4,006.10	4.123	₹ 16,517.15
12	M&L for Reinforce Cement Concrete (Design Mix RMC) Foundations, including rafts, footings, foundation beams; plinth beams; bases for columns, etc.; basement slabs, under-reamed piles and mass concrete M:40 Cement Content Minimum 350kg/cum as per Design mix nothing extra to be paid for richer mix	Cu.m	7,754.24	141.064	₹ 10,93,844.11
13	M&L for Reinforce Cement Concrete (Design Mix RMC Parapet wall , Retaining walls etc. or in similar articles upto 5th floor level M:40	Cu.m	7,754.24	43.462	₹ 3,37,014.78
14	M&L for Reinforce Cement Concrete (Design Mix RMC) Beams, cantilevers, lintels, columns pillars,piers, posts, struts,chullah hoods, stair case,arches, domes, vaults,shell roofs, arch ribs, folded plates, slabs,balconies, canopies, deckslabs etc. or in similar articles upto 5th floor level M:40	Cu.m	7,754.24	82.346	₹ 6,38,530.65
15	M&L for Reinforce Cement Concrete (Design Mix RMC) Beams, cantilevers, lintels, columns pillars,piers, posts, struts,chullah hoods, stair case,arches, domes, vaults,shell roofs, arch ribs, folded plates, slabs,balconies, canopies, deckslabs etc. or in similar articles upto 5th floor level M:40				
a	Roof beam	Cu.m	7,754.24	38.322	₹ 2,97,157.99
b	Lintel	Cu.m	7,754.24	2.708	₹ 20,998.48
16	M&L for Reinforce Cement Concrete (Design Mix RMC) Beams, cantilevers, lintels, columns pillars,piers, posts, struts,chullah hoods, stair case,arches, domes, vaults,shell roofs, arch ribs, folded plates, slabs,balconies, canopies, deckslabs etc. or in similar articles upto 5th floor level M:40	Cu.m	7,754.24	73.040	₹ 5,66,369.69
17	M&L for Reinforce Cement Concrete (Design Mix RMC) Beams, cantilevers, lintels, columns pillars,piers, posts, struts,chullah hoods, stair case,arches, domes, vaults,shell roofs, arch ribs, folded plates, slabs,balconies, canopies, deckslabs etc. or in similar articles upto 5th floor level M:40	Cu.m	7,754.24	1.068	₹ 8,281.53
18	M&L for Steel formwork to sides of concrete foundations, pile caps, footings, bases of columns, rafts and raft beams, sides and soffits (if any) of foundation and plinth beams and similar work vertical or to batter for flat rough finished surfaces of concrete, complete all as specified and as directed. Rough finished surfaces of concrete.	Sq.m	268.41	186.522	₹ 50,064.37

Sl. No.	Description of Item	UNIT	Rate excluding GST IN Rs	Quantity	Amount in Rs
19	M&L for Steel formwork to sides of faces of walls, retaining walls, abutments, parapets and staircase railings and similar work including attached pillasters, buttresses, etc.; vertical or to batter Rough finished surfaces of concrete.	Sq.m	418.26	486.148	₹ 2,03,336.26
20	M&L for Steel formwork to sides of Formwork to soffits of suspended slabs such as roof slabs, floor slabs, landings and similar work; not exceeding 200mm thick (Horizontal or sloping)	Sq.m	419.71	567.067	₹ 2,38,003.69
21	M&L for Steel formwork to edges of concrete flats, breaks in floors, openings in concrete walls, floors and roofs and sides of RCC/PCC bands in walls, horizontal or sloping, and similar work all exceeding 20cm wide. (Where RCC/PCC band in walls, spanning and opening, the formwork soffit only shall be paid for under item 07010)	Sq.m	406.51		₹ -
22	M&L for Steel Formwork to chullah hoods, cha jjas, troughs and similar items including edges	Sq.m	512.06	13.237	₹ 6,778.14
23	M&L for Steel Formwork to sides and soffits of floor or roof beams, beam haunch ings, girders, bressummers, lintels, cantilevers, shelves including supports, overhangs, etc. also splays between floors and beams, etc				
a	Roof beam	Sq.m	392.20	253.076	₹ 99,256.41
b	Lintel	Sq.m	392.20	27.084	₹ 10,622.34
24	M&L for Steel Formwork to staircases with sloping or stepped soffits including risers and stringers (excluding landing	Sq.m	437.60		₹ -
25	M&L for Steel Formwork to sides of pillars, posts, struts, piers, columns and stanchions	Sq.m	506.85	499.854	₹ 2,53,351.00
26	M&L for Reinforcement using TMT CRS bars of Grade Fe-500D of 6mm to 8mm dia only, cut to length, bent to shape required including cranking, bending, spirally for hooping for columns, hooking ends and binding with mild steel wire (annealed) not less than 0.9mm dia or securing with clips or welded complete all as specified and as directed.				
a	Reinforcement 10 mm dia and over	KG	70.00	34488.000	₹ 24,14,160.00
b	Reinforcement 6 to 8 mm dia	KG	71.65	4811.162	₹ 3,44,719.76
c	Reinforcement in Stirrups 8mm and Above	KG	72.19	17253.024	₹ 12,45,495.80
27	Solid block work (200mm width wall) - The size of the concrete block solid shall be 400 X 200 X 200mm and '400 X 200 x 100 respectively. The size if block for 300mm thick wall shall be 400 X 300 X 200 mm. The blocks will be machine moulded with mix prepared in a mechanical mixer and manufactured as per IS: 2185 (Part -I) 1979. The class grade and density shall be as under in foundation and plinth in: superstructure above plinth level Cement mortar 1:6 (1 cement : 6 coarse sand) refer technical specification cl 6.2	Cu.m	7,152.20	59.27	₹ 4,23,910.89
28	Hollow block work (200mm width wall) - The size of the concrete block Hollow shall be 400 X 200 X 200mm and '400 X 200 x 100 respectively. The size if block for 300mm thick wall shall be 400 X 300 X 200 mm. The blocks will be machine moulded with mix prepared in a mechanical mixer and manufactured as per IS: 2185 (Part -I) 1979. The class grade and density shall be as under in foundation and plinth in: superstructure above plinth level Cement mortar 1:6 (1 cement : 6 coarse sand)half brick thick walls, built in refer technical specification cl 6.2	Cu.m	5,504.75	20.883	₹ 1,14,955.69
29	Hollow block work (100mm width wall) - The size of the concrete block Hollow shall be 400 X 200 x 100.The blocks will be machine moulded with mix prepared in a mechanical mixer and manufactured as per IS: 2185 (Part -I) 1979. The class grade and density shall be as under in foundation and plinth in: superstructure above plinth level Cement mortar 1:4 (1 cement : 4 coarse sand)half brick thick walls, built in refer technical specification cl 6.2	Sqm	802.46	207.878	₹ 1,66,813.78
30	Brickwork with subclass 'B' bricks, With 1:4 CM straight or curved on plan and complete as per specifications and as per directions of Engineer-in-charge	Cum	4,551.27	1.679	₹ 7,641.58
31	Providing 5 mm cement plaster with cement mortar 1:3 (1 cement : 3 fine sand) on concrete surface / ceilings including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge.(Ceiling)	Sq.m	156.28	43.846	₹ 6,852.25
32	Providing 15 mm cement plaster with CM 1:4, 5mm over 10 mm, thick on fair faces of brick work or concrete surfaces on brick/ block/ concrete surface including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge (External).	Sq.m	222.98	809.216	₹ 1,80,438.98
33	Providing 10 mm cement plaster with cement mortar 1:6 (1 cement : 6 fine sand) on brick/ block/ concrete including rounding off corners wherever required smooth rendering and provide 3mm thick wall care putty on wall. Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge.(Internal)	Sq.m	266.09	872.628	₹ 2,32,197.58
34	M&L Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers	KG	39.07	99.631	₹ 3,892.58

Sl. No.	Description of Item	UNIT	Rate excluding GST IN Rs	Quantity	Amount in Rs
35	Providing White washing on ceiling three coats approved quality,including the preparation of the new surface, including cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge. - T5	Sq.m	25.17	131.432	₹ 3,308.14
36	Providing White washing on Walls three coats approved quality,including the preparation of the new surface, including cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge. - T2	Sq.m	20.76	467.389	₹ 9,703.00
37	M&L Two Coats of Acrylic washable distemper over primer, Walls - T1 Distemping with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gms/litre, of approved manufacturer, of required shade and colour complete, as per manufacturer's specification. Two or more coats on new work	Sq.m	103.14	781.093	₹ 80,561.93
38	M&L Exterior Emulsion 2 coats over primer - T4. Material & Labour for applying Two or more coats of 100% Premium acrylic emulsion paint having VOC less than 50 gm/litre and UV resistance as per IS 15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade (Company Depot Tinted) with silicon additives @ 1.43 litre/ 10 sqm over and including priming coat of exterior primer applied @ 0.90 litre/ 10 sqm over new surfaces.	Sq.m	117.04	809.216	₹ 94,710.64
39	M&L Providing two coats of anti-corrosive paint over coat of primer on ceiling surfaces including cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge. -T7	Sq.m	97.54	19.822	₹ 1,933.44
40	M&L Two Coats of Acrylic washable distemper over one coat of putty & primer, Ceiling - Distemping with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gms/litre, of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.	Sq.m	184.81	191.968	₹ 35,477.61
41	M&L Painting with Synthetic Enamel paint two coats over a coat of pink primer incl preparation of new Wooden surfaces	Sq.m	118.81	12.740	₹ 1,513.64
42	M&L Painting with Synthetic Enamel paint two coats over a coat of red oxide or zinc primer incl preparation of new Steel surfaces	Sq.m	119.75	31.398	₹ 3,759.91
49	Providing and fixing factory made uPVC white colour casement (Openable) Door made of extruded profile with wall thickness of 2.3mm (+ -0.2mm). Window Profile with hollow section with mittli chamber, frame (60mm x 58mm), sash (60mm x 78mm). T profile (One vertical length in between two shutters) (60mm x 74mm). Glazing bead (35mm x 20mm) will be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware and drainage of water etc., making arrangement for fixing of hardware. EPDM gasket 1.2 + -0.2mm thick galvanized steel Frame (28mm x 21.5mm), sash (31mm x 27mm), T profile (27mm x 17mm) to be inserted in required profile, frame will be fixed to the wall with 8mm x 100mm long fasteners. Hardware: [casement door handle made of zinc alloyed (white powder coated). Corner striker. Secondary Strikers. Cylinder. Door transmission gear made of mild steel with multi point locking system with strikes. 3D Hinges of zinc alloyed (white powder coated)	Sq.m	9,462.81	3.150	₹ 29,807.85
50	Supply and fixing factory made uPVC white colour Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) upto 1.50m height made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm) comprising of uPVC multi chambered frame, with inbuilt roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, complete all as specified and directed by Engineer-in-Charge	Sq.m	7,377.64	19.008	₹ 1,40,234.18

Sl. No.	Description of Item	UNIT	Rate excluding GST IN Rs	Quantity	Amount in Rs
51	Supply and fixing factory made uPVC white colour fixed glazed window /ventilator made of (small series) frame 47 x 50 mm mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension (Area upto 0.75 sqm.) comprising of uPVC multi-chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I. fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge.	Sq.m	5,424.18	29.400	₹ 1,59,470.89
52	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including: (a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminium sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)- cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including: (b) Fabricating and supplying serrated M.S. hot dip galvanised / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimensional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon seperator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers. (c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment, including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.	Sqm	2,636.73	200.960	₹ 5,29,877.93
	(d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight. (e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, dully approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this sub- head. However, for the purpose of payment, only the actual area of structural glazing (including width of grooves) on the external face shall be measured in sqm. up to two decimal places.				
	Note:-2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accredited by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately.				

Sl. No.	Description of Item	UNIT	Rate excluding GST IN Rs	Quantity	Amount in Rs
	The NIT approving authority will decide the necessity of testing on the basis of cost of the work, cost of the test and importance of the work. Performance Testing of Structural glazing system. Tests to be conducted in the NABL accredited lab or any other accreditation body which operates in accordance with ISO/ IEC 17011 and accredits labs as per ISO/IEC 17025 1. Performance Laboratory Test for Air Leakage Test (-50pa to - 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr 2. Static Water Penetration Test. (50pa to 1500pa) as per ASTM E- 331-09 testing method for a range up to 2000 ml. 3. Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml 4. Structural Performance Deflection and deformation by static air pressure test (1.5 times design wind pressure without any failure) as per ASTM E-330-10 testing method for a range upto 50 mm 5. Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test, Tests to be conducted on site. 6. Onsite Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000 ml.				
53	S& F Figured glass, pin head type and glazing with oil putty in squares exc 0.5 sq. m in each pane				
a	With float glass panes of 5.0 mm thickness	Sq.m	699.15	51.558	₹ 36,046.78
b	With float glass panes of 6.0 mm thickness	Sq.m	872.88	200.960	₹ 1,75,413.96
54	Stainless steel wire cloth. 0.36mm nominal dia of wire and average width of aperture 1.40mm and fixed with stainless steel wire staples		0.00		₹ -
	Wire mesh	Sqm	617.20	19.008	₹ 11,731.74
55	Plain, solid, straight chowkats and frames, wrought, framed rebated on the solid, rounded or chamfered, put together with glue pinned at joints, supplied and fixed		0.00		₹ -
a	Flush door Frame	Cum	99,257.63	0.273	₹ 27,097.33
56	Flush shutters, solid core construction, with block board core and plywood face panels, commercial type on both sides				
a	Flush door shutter	Sqm	1,490.42	14.700	₹ 21,909.17
57	S& F Anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-Charge.				
	Aluminium grill	Kg	499.06	92.832	₹ 46,328.74
58	Material & Labour for providing and fixing stainless steel (Grade 304) railing made of hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (where ever required) and fitting the same with necessary stainless steel nuts and bolts complete, including fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel boltsetc., of required size, on the top of floor or the side of waist slab with suitable arrangement	KG	428.29	67.500	₹ 28,909.58
59	Material & Labour for providing and fixing stainless steel (Grade 304) staircase made of hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (where ever required) and fitting the same with necessary stainless steel nuts and bolts complete, including fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel boltsetc., of required size, on the top of floor or the side of waist slab with suitable arrangement	Sqm	18,237.29	14.160	₹ 2,58,240.03
60	Supply and fixing to existing door frames 30 mm thick Glass Fibre Reinforced Plastic (FRP) panelled door shutter of required colour and approved brand and manufacture, made with fire - retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate for forming hollow rails and styles, with wooden frame and suitable blocks of seasoned wood inside at required places for fixing of fittings, cast monolithically with 5 mm thick FRP laminate for panels conforming to IS: 14856, including fixing to frames, complete as specified by the manufacturer and as per directions of Engineer- in-charge.	Sq.m	3,001.47	9.765	₹ 29,309.35
61	Supply and fixing Fiber Glass Reinforced plastic (FRP) Door Frames of cross section 90 mm x 45 mm having single rebate of 32 mm x 15 mm to receive shutter of 30 mm thickness. The laminte shall be moulded with fire resistant grade unsaturated polyester resin and chopped mat. Door frame laminate shall be 2mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiber glass from all sides. M.S. stay shall be provided at the bottom to steady the frame., complete as specified by the manufacturer and as per directions of Engineer-in-charge.	RM	589.56	29.850	₹ 17,598.37
62	S& F Steel door including projecting type hinges, steel handle, complete,with glazing bars, dovetailed or welded	Sq.m	2,015.58	8.190	₹ 16,507.60

Sl. No.	Description of Item	UNIT	Rate excluding GST IN Rs	Quantity	Amount in Rs
63	Pressed steel frames for doors with one or more rebates including necessary fixing lugs, hinges, lock strike plate, etc., complete, as specified, supplied and fixed -105 x 60mm	RM	346.53	24.900	₹ 8,628.60
57	M&L Cement concrete type B-1, 1:2:4 (20mm graded aggregate) 50mm th complete all as specified and directed	Sqm	280.68	12.940	₹ 3,632.00
58	Aluminium dividing strips, 1.5mm thick, inserted in position, conform to design	Rm	46.19	8.800	₹ 406.47
59	M&L Chequered cement concrete tiles 20cm x 20cm x 25mm thick, set, jointed and pointed in neat cement slurry in floors (With grey cement and pig-ments)	Sqm	932.46	2.100	₹ 1,958.17
60	M&L Screed bed or bedding layer of mortar 15 mm thick in CM1:4 for laying floor finishes complete all as specified and directed	Sqm	189.30	176.235	₹ 33,361.29
61	M&L Screed bed or bedding layer of mortar 15 mm thick in CM1:4 for laying floor finishes complete all as specified and directed (Add or deduct from item 14009 for each 5mm thickness over or under 15mm)	Sqm	235.90	16.173	₹ 3,815.21
62	M&L Machine cut kota stone slab flooring 20-25mm thick over cement screed base laid and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete	Sqm	870.68	16.173	₹ 14,081.51
63	M&L Non - skid Ceramic tiles 7 to 8 mm thick (square/ rectangular) area of each tile exceeding 0.11 sqm but not exceeding 0.18 sqm, in floors etc. set and jointed in neat cement slurry and pointed in white or coloured cement to match complete all as specified and directed	Sqm	1,122.46	19.822	₹ 22,249.40
64	M&L Virified Ceramic tiles 10 mm thick (square/ rectangular) polished, area of each tiles not exceeding 0.36 sqm, in floors etc. set and jointed in neat cement slurry and pointed in white or coloured cement to match (Light Shade) complete all as specified and directed	Sqm	1,245.59	133.106	₹ 1,65,795.50
65	M&L Kota stone slab 20-25mm thick in riser of steps, skirting, dado and pillar laid over cement screed and jointed with ditto as per item 13014 complete all as specified and directed	Sq.m	901.95	0.496	₹ 447.37
66	M&L Glazed ceramic tiles in vertical surface 350x 250x 7 mm/ 450X 350X 7mm thick set and jointed in neat cement slurry and pointed in white or colour cement to match complete all as specified and directed	Sq.m	887.46	107.48	₹ 95,384.20
67	M&L 20mm thick Granite (of any type) tiles machine cut, in skirting/ dado laid over cement screed and jointed with grey cement slurry, and pointed with white cement with admixture of pigment to match the shade of granite stone including grinding and polishing complete	Sq.m	2,070.13	18.582	₹ 38,467.16
68	Marble work 18 to 20mm thick (table rubbed and polished) in steps, jambs, pillars, windowills, cooking platforms and like in cement mortar (1:4) including pointing in white cement (1:2) using marble dust with admixture of pigment to match with marble shade of following types	Sq.m	3,165.08	4.848	₹ 15,344.31
69	M&L Rendering 10mm thick on fair faces of brick work or concrete surfaces cement plaster 1:3 for backing coat to skirting /dado complete all as specified and directed	Sq.m	176.16	112.699	₹ 19,853.06
70	M&L Providing and fixing Gypsum Board 12mm thick in ceiling fixed with screw as per manufacturers instructions	Sq.m	375.93	191.968	₹ 72,166.53
71	M&L GI frame work for seamless ceiling comprising of GI perimeter channel 0.55 mm thick with two unequal flanges of 20 and 30 mm and web of 27 mm fixed to surrounding wall using nylon sleeves and screws at 450 mm centre to centre/intermediate channel 0.9 mm thick having two equal flanges of 15 mm each and web of 45 mm suspended from soffit at approx 900 mm centre to centre with GI cleat and steel expansion fasteners with and including ceiling section (not exc 1.2 m length) of 0.55 mm thickness having kurlled web of 50 mm and flange of 26 mm each with lips of 10.5 mm fixed to the intermediate channel with connecting clips across the intermediate channel at 457 mm centre to centre.	Sq.m	410.19	191.968	₹ 78,743.35
72	M&L Hangers 6mm dia GI (upto 1200mm length adjusting level fixed to roof slabs by means of ceiling cleats made out of GI flate 40X30mm size 60mm long and expansion hold fasteners 12.5mm dia 40mm long complete all as specified.	Sq.m	94.24	191.968	₹ 18,091.06
73	M&L GI Metal Ceiling Lay in plain Tegular edge Global white color tiles of size 595x595 mm, and 0.5 mm thick with 8 mm drop; made of G I sheet having galvanizing of 100 gms/sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending. suspended on inter locking metal grid of hot dipped galvanized steel sections	Sq.m	1,416.34	19.822	₹ 28,074.69
74	M&L APP based polymeric membrane minimum weighing 3kg/sqm and minimum 3mm thick reinforced with polyster non wove fabric (wt. not less than 150 gms/sqm) land on primed surface by forced application complete all as specified Applying evenly a tack coat of industrial bitumen 85/25 at the rate of 1.2 kg per sq.m including cleaning surfaces	Sq.m	397.58	105.774	₹ 42,053.63
75	M&L Screed bed or bedding layer of mortar 5 mm thick for laying floor finishes 1:3	Sq.m	105.57	105.774	₹ 11,166.56
76	Cement concrete type B-0, 1:2:4 (12.5mm graded aggregate) - 20-25mm thk	Sq.m	212.88	105.774	₹ 22,517.17

Sl. No.	Description of Item	UNIT	Rate excluding GST IN Rs	Quantity	Amount in Rs
77	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	Sqm	459.69	39.376	₹ 18,100.75
78	Plastic encapsulated M.S. foot rest 30x20x15 cm	Each	97.88	16.000	₹ 1,566.08
79	SFRC - Manhole - Cover	Each	1,864.41	2.000	₹ 3,728.82
80	M&L Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 Sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 Sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	Each	237.23	4.000	₹ 948.92
	Sub-Total (A)				₹ 1,22,72,467.25
(K)	Electrical Work				
81	M&L for Circuit / Sub main wiring with two runs of 2.50Sqmm PVC FRLSH insulated copper conductor cable, single core multi stranded 1100Volt along with one run of 2.5 Sqmm as earth wire, drawn through and including rigid PVC conduit of minimum 32mm dia, concealed type, medium grade as per IS 9537 (Part 1-1983) with conduit accessories, complete all as specified and as directed. Note: Two/four runs of cable, one/two run of earth wire and one run of conduit shall be measured as one unit.	RM	₹ 156.96	1000.000	₹ 1,56,960.00
82	for two runs of 4.0Sqmm and one run of 4.0Sqmm as earth wire.	RM	₹ 182.20	600.000	₹ 1,09,320.00
83	for two runs of 6.0Sqmm and one run of 6.0Sqmm as earth wire.	RM	₹ 219.66	150.000	₹ 32,949.00
84	for Two runs of 1.50Sqmm and one run of 1.50Sqmm as earth wire.	RM	₹ 138.41	1200.000	₹ 1,66,092.00
	Supply and fixing of following size of the metal boxes				
85	1 &2 module	Each	₹ 151.78	40.000	₹ 6,071.20
86	3 Module	Each	₹ 152.37	17.000	₹ 2,590.29
87	4 Module	Each	₹ 180.85	10.000	₹ 1,808.50
88	6 Module	Each	₹ 240.76	23.000	₹ 5,537.48
89	S&F Modular switch 1 way 6A, 1 Module, 240 Volts complete all as specified and as directed.	Each	₹ 220.76	95.000	₹ 20,972.20
90	S&F Modular switch 1 way 16A, 1 Module, 240 Volts complete all as specified and as directed.	Each	₹ 291.27	6.000	₹ 1,747.62
91	S&F Modular Socket, 6A, 2/3 pin combined , 2 module, 240 Volts, complete all as specified and as directed.	Each	₹ 288.59	30.000	₹ 8,657.70
92	S&F Modular Socket, 6A/16A, multipurpose, 2 module, 240 Volts complete all as specified and as directed.	Each	₹ 447.80	17.000	₹ 7,612.60
93	S&F Modular Switch 2 way 6A, 1 Module, 240 volts complete all as specified and as directed.	Each	₹ 260.42	15.000	₹ 3,906.30
94	S&F Modular Bell push 5/6Amp, 1 module, 230Volt, complete all as specified and as directed.	Each	₹ 260.42	5.000	₹ 1,302.10
95	Supply and fixing of MS fan clamp 16MM dia MS bar, bend shape with hooked ends in RCC slabs or beams during laying, including painting the exposed portion loop, all as per the stanaded design.	Each	₹ 157.58	10.000	₹ 1,575.80
96	Ceiling rose, 3 terminals PVC/Polycarbonate, 3 phase, isolated body complete all as specified and as directed.	Each	₹ 55.68	50.000	₹ 2,784.00
97	S&F Sheet metal clad SPN enclosure with a 3 pin and earth plug & socket type, with and including one single pole MCB 25Amp, 10kA, C series, 240Volt with connections, complete all as specified and as directed.	Each	₹ 1,763.98	19.000	₹ 33,515.62
98	S&F Sheet metal clad TPN enclosure with a 5 pin and earth plug & socket type, with and including one single pole MCB 32Amp, 10kA, C series, 415Volt with connections, complete all as specified and as directed.	Each	₹ 3,355.00	10.000	₹ 33,550.00
99	S&F Sheet metal enclosure MCB DB double door, single pole and neutral 04 Way sheet steel phospetised power coated with 200 Amps rated bus bar 240 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	Each	₹ 1,308.81	4.000	₹ 5,235.24
100	S&F Sheet metal enclosure MCB DB double door, single pole and neutral 08 Way sheet steel phospetised power coated with 200 Amps rated bus bar 240 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed	Each	₹ 1,620.93	4.000	₹ 6,483.72
101	S&F Sheet metal enclosure MCB DB double door, single pole and neutral 12 Way sheet steel phospetised power coated with 200 Amps rated bus bar 240 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	Each	₹ 1,919.41	1.000	₹ 1,919.41
102	S&F Sheet metal enclosure MCB DB double door, Triple pole and neutral 4Way sheet steel phospetised power coated with 200 Amps rated bus bar 415 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	Each	₹ 2,239.58	5.000	₹ 11,197.90

Sl. No.	Description of Item	UNIT	Rate excluding GST IN Rs	Quantity	Amount in Rs
103	S&F Sheet metal enclosure MCB DB double door, Triple pole and neutral 6 Way sheet steel phosphetised power coated with 200 Amps rated bus bar 415 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed.	Each	₹ 2,700.17	3.000	₹ 8,100.51
104	S&F Sheet metal enclosure MCB DB double door, Triple pole and neutral 8 Way sheet steel phosphetised power coated with 200 Amps rated bus bar 415 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed	Each	₹ 3,041.27	1.000	₹ 3,041.27
105	S&F Sheet metal enclosure MCB DB double door, Triple pole and neutral 12 Way sheet steel phosphetised power coated with 200 Amps rated bus bar 415 Volts nutral link, IP-20 protection, fixed in concealed position, complete all as specified and as directed	Each	₹ 3,884.15	1.000	₹ 3,884.15
106	S&F Rigid non-metallic, PVC concealed conduit of size 25mm, ISI marked (Meadium grade) exclusive of Junction/terminal boxes but inclusive of all tees,bends,elbows,reducers,bell mouth tube ends and fixing accessories such as couplers, lock nuts, saddles, pipe hooks etc to run the Telephone & LAN connections, complete all as specified and as directed.	RM	₹ 71.44	1750.000	₹ 1,25,020.00
107	S&F PVC Junction boxes (1 to 4 way) of 20 mm external dia, complete all as specified and as directed.	Each	₹ 34.70	180.000	₹ 6,246.00
108	S&F PVC Junction boxes (1 to 4 way) of 25 mm external dia, complete all as specified and as directed.	Each	₹ 39.16	75.000	₹ 2,937.00
	Sub-Total (B)				₹ 7,71,017.61
(L)	Water Supply				
109	S&F Galvanised steel water tubing 32mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors including testing, complete all as specified and as directed.	RM	₹ 301.69	35.000	₹ 10,559.15
110	S&F Galvanised steel water tubing 50mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors including testing, complete all as specified and as directed.	RM	₹ 366.95	35.000	₹ 12,843.25
111	S&F Galvanised steel water tubing 40mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors including testing, complete all as specified and as directed.	RM	₹ 348.31	-	₹ -
112	S&F Galvanised steel water tubing 25mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors including testing, complete all as specified and as directed	RM	₹ 166.10	40.00	₹ 6,644.00
113	S&F Galvanised steel water tubing 20mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors including testing, complete all as specified and as directed.	RM	₹ 143.22	-	₹ -
114	S&F Galvanised steel water tubing 15mm bore, medium grade conforming to IS:1239 (Part I) including all fittings (such as bends, tees, short pieces connectors, elbows, reducers, unions, sockets etc) and fixed to walls/ceilings/ laid on floors including testing, complete all as specified and as directed.	RM	₹ 121.19	35.00	₹ 4,241.65
115	S&F 15mm bore Bib tap, chromium plated, quarter turn, fancy type, cast copper alloy with crutch or butterfly handle, screwed down screwed for iron pipe or for brass ferrule, short/long body of approved quality, complete all as specified and as directed.	Nos	₹ 514.89	7.00	₹ 3,604.23
116	S&F 15mm bore chromium plated pillar taps, CP fancy type, cast copper alloy with capstan heads, screwed down high pressure with or without lettered Hot or cold with long screwed shanks and fly nuts, screwed for iron pipe, complete all as specified and as directed.	Nos	₹ 573.25	7.00	₹ 4,012.75
117	S&F 15mm bore Brass CP mixer for mixing hot & cold water screwed down for iron pipe and fixed, complete all as specified and as directed.	Nos	₹ 1,477.47	7.00	₹ 10,342.29
118	S&F CP brass shower rose of 15mm inlet and 125mm outlet with swivel joint, CP shower arm and CP flange, complete all as specified and as directed.	Nos	₹ 346.82	7.00	₹ 2,427.74
119	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 25mm bore, complete all as specified and as directed.	Nos	₹ 497.66	7.00	₹ 3,483.62
120	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 40mm bore, complete all as specified and as directed.	Nos	₹ 665.23	3.00	₹ 1,995.69
121	S&F Gun-metal, globe or gate valves, with iron wheel head, screwed both ends, suitable for iron pipe of 20mm bore, complete all as specified and as directed.	Nos	₹ 457.72	7.00	₹ 3,204.04

Sl. No.	Description of Item	UNIT	Rate excluding GST IN Rs	Quantity	Amount in Rs
122	S&F Stop /Angle Valves, 15 mm bore dia pipe ,chromium plated, fancy, cast copper alloy, screwed down high pressure with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed, complete all as specified.	Nos	₹ 577.99	9.00	₹ 5,201.91
123	S&F Stop /Angle Valves, 15 mm bore dia pipe ,chromium plated, fancy, long shank and cup concealed type cast copper alloy, screwed down high pressure with crutch or butterfly handle, screwed both ends for iron pipe or for unions and fixed complete all as specified.	Nos	₹ 610.29	7.00	₹ 4,272.03
124	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required	Nos	₹ 4,465.13	2.00	₹ 8,930.26
125	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required	Nos	₹ 4,695.38	7.00	₹ 32,867.66
126	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require (White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar tap)	Nos	₹ 1,927.97	7.00	₹ 13,495.79
127	S&F PVC (SWR) pipes single socketed, in any length with rubber ring joints, laid in trenches or in floors		₹ 0.00		₹ -
a	75mm dia	RM	₹ 135.59	50.000	₹ 6,779.50
b	110mm dia	RM	₹ 161.02	60.000	₹ 9,661.20
c	150mm UPVC	RM	₹ 1,447.46	100.000	₹ 1,44,746.00
128	M&L for Bends for 300mm dia NP3 pipe, laid in trenches and jointed, complete all as specified and as directed				
a	300MM dia RCC	Each	₹ 619.57		₹ -
b	200mm dia RCC	Each	₹ 565.08	40.000	₹ 22,603.20
129	S&F PVC (SWR) pipes single socketed in any length with rubber ring joints fixed to walls				
a	75mm dia	RM	₹ 139.83	100.000	₹ 13,983.00
b	110mm dia	RM	₹ 165.25	50.000	₹ 8,262.50
c	150mm dia	RM	₹ 165.25	50.000	₹ 8,262.50
			₹ 0.00		₹ -
130	S&F PVC (SWR) bends any radius		₹ 0.00		₹ -
a	75mm dia	Each	₹ 93.22	25.000	₹ 2,330.50
b	110mm dia	Each	₹ 105.93	25.000	₹ 2,648.25
131	S&F PVC (SWR) branch piece, single (single Y) equal or unequal				
a	75mm dia	Each	₹ 358.94	20.000	₹ 7,178.80
b	110mm dia	Each	₹ 468.27	20.000	₹ 9,365.40
132	S&F PVC (SWR) branch piece, double (double Y) equal or unequal				
a	75mm dia	Each	₹ 425.10	10.000	₹ 4,251.00
b	110mm dia	Each	₹ 592.64	10.000	₹ 5,926.40
133	S&F PVC (SWR) junction single, (Single T) equal or unequal				
a	75mm dia	Each	₹ 330.75	5.000	₹ 1,653.75
b	110mm dia	Each	₹ 427.14	5.000	₹ 2,135.70
134	S&F PVC (SWR) junction double, (double T), equal or unequal				
a	75mm dia	Each	₹ 410.77	2.000	₹ 821.54
b	110mm dia	Each	₹ 578.78	2.000	₹ 1,157.56
135	S&F PVC (SWR) couplers				
a	75mm dia	Each	₹ 80.51	5.000	₹ 402.55
b	110mm dia	Each	₹ 110.17	5.000	₹ 550.85
136	S&F PVC (SWR) vent cowl				
a	75mm dia	Each	₹ 80.51	9.000	₹ 724.59
b	110mm dia	Each	₹ 97.46	9.000	₹ 877.14
137	S&F PVC (SWR) 'P' trap				
a	110mm dia	Each	₹ 224.58	7.000	₹ 1,572.06
138	S&F PVC (SWR) floor trap, plain with grating including jointing with solvent cement				
a	75mm dia	Each	₹ 190.68	7.000	₹ 1,334.76
	Sub-Total (L)				₹ 3,85,354.81
	TOTAL AMOUNT (A+K+L)				₹ 1,34,28,839.67
				Say	₹ 1,34,28,840.00