

Name of Work: Construction of New Building for General Nursing Hostel at General Hospital Santrampur Ta. Santrampur,				
Index Specification				
Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
1	Excavation for foundation upto 1.5 m depth including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead. (C) Hard Murrum	Cmt	Ch-4, Item Code: 04B001C	Refer General Technical specification
2	Excavation for foundation upto 1.5 m depth including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead. (C) Soft rock not required blasting	Cmt	Ch-4, Item Code: 04B001D	Refer General Technical specification
3	Excavation for foundation for depth from 1.5 m to 3.0 m including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead. (C) Soft rock not required blasting	Cmt	Ch-4, Item Code: 04B002D	Refer General Technical specification
4	Excavation for foundation for depth from 3.0 m to 5.0 m including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead. (D) Soft rock not requiring Blasting	Cmt	Ch-4, Item Code: 04B003D	Refer General Technical specification
5	Filling in plinth with sand under floors including watering, ramming, consolidating and dressing etc. complete (Upto 10 ton)	Cmt	Ch-4, Item Code 04007A	Refer General Technical specification
6	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each deposited layer by ramming and watering	Cmt	Ch.4-Item 4006	Refer General Technical specification
7	Filling in plinth with murrum or selected soil in layers of 20 cm. thickness including watering, ramming and consolidating etc. Complete.	Cmt	Ch.4-Item Code 04008A	Refer General Technical specification
8	Provdg. & laying cement concrete 1:2: 4 (1cement: 2 corse sand: 4 hand broken stone aggregate 20 mm nominal size) and curing complete excluding cost of form work in (A) Foundation and plinth	Cmt	Ch-5, Item Code: 05010AA	Refer General Technical specification
9	Providing and laying cement concrete 1:3: 6 (1-Cement: 3- coarse sand: 6- hand broken stone aggregates 40 mmnominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth (more than 10 ton)	Cmt	Ch-5, Item Code: 05003A	Refer General Technical specification

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10	Providing, laying, spreading and compacting graded stone aggregates to Wet Mix Macadam in 150 mm thickness as per MORT & H specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tippers to site, laying in uniform layers with paver or motor grader in sub base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density. complete as per MORT & H clause 406	Cmt	Separate Sheet Attached
11	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (A) Footing	Cmt	Separate Sheet Attached
12	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) Plinth Beam	Cmt	Separate Sheet Attached
13	Providing, laying controlled cement concrete M 200 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: Grade Slab	Cmt	Separate Sheet Attached
14	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (B) Column (i) up to plinth level	Cmt	Separate Sheet Attached
15	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (B) Column (i) up to Ground Floor slab level	Cmt	Separate Sheet Attached
16	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (B) Column (i) First Floor	Cmt	Separate Sheet Attached

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17	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (B) Column (i) Second Floor	Cmt	Separate Sheet Attached
18	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (B) Column (i) Third Floor	Cmt	Separate Sheet Attached
19	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (B) Column (i) Fourth (Terrace) Floor	Cmt	Separate Sheet Attached
20	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (D) RCC Wall (i) up to Ground Floor slab level	Cmt	Separate Sheet Attached
21	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (D) RCC Wall (i) First Floor	Cmt	Separate Sheet Attached
22	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (D) RCC Wall (i) Second Floor	Cmt	Separate Sheet Attached
23	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (D) RCC Wall (i) Third Floor	Cmt	Separate Sheet Attached

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24	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (D) RCC Wall (i) Fourth (Terrace) Floor	Cmt	Separate Sheet Attached
25	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (E) Floor Beam (i) Ground Floor	Cmt	Separate Sheet Attached
26	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Floor Beam (i) First FLOOR	Cmt	Separate Sheet Attached
27	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: : (C) RCC Floor Beam (i) Second FLOOR	Cmt	Separate Sheet Attached
28	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: : (C) RCC Floor Beam (i) Third FLOOR	Cmt	Separate Sheet Attached
29	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: : (C) RCC Floor Beam (i) Fourth (Terrace) FLOOR	Cmt	Separate Sheet Attached
30	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Lintel (i) For Ground Floor	Cmt	Separate Sheet Attached

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31	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Lintel (i) For First Floor	Cmt	Separate Sheet Attached
32	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Lintel (i) For Second Floor	Cmt	Separate Sheet Attached
33	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Lintel (i) For Third Floor	Cmt	Separate Sheet Attached
34	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Lintel (i) For Fourth (terrace) Floor	Cmt	Separate Sheet Attached
35	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Weathershed (i) up to Ground Floor slab level	Cmt	Separate Sheet Attached
36	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Weathershed (i) First Floor	Cmt	Separate Sheet Attached
37	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Weathershed i) Second Floor	Cmt	Separate Sheet Attached

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38	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Weathershed i) Third Floor	Cmt	Separate Sheet Attached
39	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Weathershed i) Fourth (Terrace) Floor	Cmt	Separate Sheet Attached
40	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Slab i) up to Ground Floor slab level	Cmt	Separate Sheet Attached
41	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Slab i) First Floor	Cmt	Separate Sheet Attached
42	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Slab i) Second Floor	Cmt	Separate Sheet Attached
43	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Slab i) Third Floor	Cmt	Separate Sheet Attached
44	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work but excluding reinforcement for reinforced concrete work in: (C) RCC Slab i) Fourth (Terrace) Floor	Cmt	Separate Sheet Attached

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45	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Stair Case i) up to Ground Floor slab level	Cmt	Separate Sheet Attached	
46	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Stair Case i) First Floor	Cmt	Separate Sheet Attached	
47	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Stair Case i) Second Floor	Cmt	Separate Sheet Attached	
48	Providing, laying controlled cement concrete M 250 and curing complete including the cost of form work (rates for centering, shuttering, formwork staging scaffolding for considering up to 4.50M height) but excluding reinforcement for reinforced concrete work in: (C) RCC Stair Case i) Third Floor	Cmt	Separate Sheet Attached	
49	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg.	(Ch-5, Item Code: 05014C, It. No 5.4.11)	Refer General Technical Specification
50	Providing and position PVC Sleeves in RCC elements like walls slabs beams etc. of 10 Kg./ cm <sup>2</sup> UPVC Pipes and diameter of taking out service pipelines cables road infrasturcture work etc. upto 1 Mtr. length for all floors/ all levels/ all heights. a) 50mm dia.	Each	Separate Sheet Attached	
51	b) 75mm dia.	Each	Separate Sheet Attached	
52	c) 110mm dia.	Each	Separate Sheet Attached	
53	Applying general insecticide pest control treatment to floors, cupboards etc including labour materials etc. complete. Using Imidacloprid 30.5 SCas Per IS 6313 part-II (0.075% concentration by mass) is recommended 10.5ml chemical diluted with 5 liters of water application 0.5 Liter chemical/ Smt of surface is recommended as per I.S.	Smt	Ch-22, Item Code: 22006	Refer General Technical Specification

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54	Brick work using common burnt clay building bricks having crushing strength not less than 35 Kg./ Sq. Cm. in foundation and plinth in cement mortar 1:6 (1 cement: 6 fine sand) Up to Plinth level. (B) Conventional (more than 10 ton) up to plinth	Cmt	(Item Code: 6002BA)	Refer General Technical Specification
55	Brick work using common burnt clay building bricks having crushing strength not less than 35 Kg./ Sq. Cm. in foundation and plinth in cement mortar 1:6 (1 cement: 6 fine sand) Up to Plinth level. (B) Conventional (more than 10 ton) (A) Ground Floor.	Cmt	(Item Code: 6002BA)	Refer General Technical Specification
56	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 Kg./ sqcm for super structure above plinth level upto floor two level in cement mortar 1:5 (1 cement: 5 fine sand) complete as per Technical Specification (A) Ground Floor.	Cmt	Item Code: 6014+ 06006B+ 06007B2A	Refer General Technical Specification
57	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 Kg./ sqcm for super structure above plinth level upto floor two level in cement mortar 1:5 (1 cement: 5 fine sand) complete as per Technical Specification (b) First Floor	Cmt	Item Code: 6014+ 06006B+ 06007B2A X 2	Refer General Technical Specification
58	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 Kg./ sqcm for super structure above plinth level upto floor two level in cement mortar 1:5 (1 cement: 5 fine sand) complete as per Technical Specification (c) Second Floor	Cmt	Item Code: 6014+ 06006B+ 06007B2A X 3	Refer General Technical Specification
59	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 Kg./ sqcm for super structure above plinth level upto floor two level in cement mortar 1:5 (1 cement: 5 fine sand) complete as per Technical Specification (c) Third Floor	Cmt	Item Code: 6014+ 06006B+ 06007B2A X 4	Refer General Technical Specification
60	Masonry work using Aerated light weight concrete block having crushing strength not less than 35 Kg./ sqcm for super structure above plinth level upto floor two level in cement mortar 1:5 (1 cement: 5 fine sand) complete as per Technical Specification (d) Fourth (Terrace) Floor	Cmt	Item Code: 6014+ 06006B+ 06007B2A X 5	Refer General Technical Specification
61	Providing & fixing 15 mm cement plaster in single coat on brick/ concrete wall for interior plastering finished even and smooth in cement mortor 1:4 (1 cement: 4 coarse sand) including floating coat of neat cement including finishing etc complete. (a) Ground Floor	Smt	Item Code: 17002B+ 17004A	Refer General Technical Specification



Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
62	Providing & fixing 15 mm cement plaster in single coat on brick/ concrete wall for interior plastering finished even and smooth in cement mortor 1:4 (1 cement: 4 coarse sand) including floating coat of neat cement including finishing etc complete. (b) First Floor	Smt	Ch-17, Item Code: 17002B+ 17004A+ 17007A	Refer General Technical Specification
63	Providing & fixing 15 mm cement plaster in single coat on brick/ concrete wall for interior plastering finished even and smooth in cement mortor 1:4 (1 cement: 4 coarse sand) including floating coat of neat cement including finishing etc complete. (c) Second Floor	Smt	Ch-17, Item Code: 17002B+ 17004A+ 17007A X2	Refer General Technical Specification
64	Providing & fixing 15 mm cement plaster in single coat on brick/ concrete wall for interior plastering finished even and smooth in cement mortor 1:4 (1 cement: 4 coarse sand) including floating coat of neat cement including finishing etc complete. (d) Third Floor	Smt	Ch-17, Item Code: 17002B+ 17004A+ 17007A X3	Refer General Technical Specification
65	Providing & fixing 15 mm cement plaster in single coat on brick/ concrete wall for interior plastering finished even and smooth in cement mortor 1:4 (1 cement: 4 coarse sand) including floating coat of neat cement including finishing etc complete. (d) Fourth (Terace) Floor	Smt	Ch-17, Item Code: 17002B+ 17004A+ 17007A X4	Refer General Technical Specification
66	10mm th cement plaster in single coat on fair side of brick/ concrete wall for interior plastering upto floor two level finished even and smooth in C M 1:4 (1 cement 4 coarse sand) including floating coat of neat cement including finishing etc complete. (A) Ground floor	Smt	Ch-17, Item Code: 17001B+ 17004A	Refer General Technical Specification
67	10mm th cement plaster in single coat on fair side of brick/ concrete wall for interior plastering upto floor two level finished even and smooth in C M 1:4 (1 cement 4 coarse sand) including floating coat of neat cement including finishing etc complete. (b) First Floor	Smt	Ch-17, Item Code: 17001B+ 17004A+ 17006	Refer General Technical Specification
68	10mm th cement plaster in single coat on fair side of brick/ concrete wall for interior plastering upto floor two level finished even and smooth in C M 1:4 (1 cement 4 coarse sand) including floating coat of neat cement including finishing etc complete. (c) Second Floor	Smt	Ch-17, Item Code: 17001B+ 17004A+ 17006 X2	Refer General Technical Specification
69	10mm th cement plaster in single coat on fair side of brick/ concrete wall for interior plastering upto floor two level finished even and smooth in C M 1:4 (1 cement 4 coarse sand) including floating coat of neat cement including finishing etc complete. (c) Third Floor	Smt	Ch-17, Item Code: 17001B+ 17004A + 17006 X3	Refer General Technical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
70	10mm th cement plaster in single coat on fair side of brick/ concrete wall for interior plastering upto floor two level finished even and smooth in C M 1:4 (1 cement 4 coarse sand) including floating coat of neat cement including finishing etc complete. (d) Fourth (Terrace) Floor	Smt	Ch-17, Item Code: 17001B+ 17004A+ 17006 X4	Refer General Technical Specification
71	20 mm. thick sand face cement plaster Gutkha finish on walls up to any height and above ground level consisting of 12 mm. thick backing coating of C.M. 1:3 (1 cement: 3 sand) and 8 mm. thick finishing coat in C.M. 1: 1 (1 cement: 1 sand) etc. complete.	Smt	Ch-17, Item Code: 17009	Refer General Technical Specification
72	Providing 20 mm thick double coat mala cement plaster on interior brick/ concrete work for plastering comprising of base coat of 12 mm thick cement plaster in cement mortar (1 Cement: 4 coarse sand) in rough finishing and 8 mm thick top coat of cement mortar 1:2 (1 Cement: 2 Coarse sand) finished with trovel including scaffolding curing etc. complete.	Smt	Ch-17, Item Code: 17017	Refer General Technical Specification
73	Providing and applying 2mm thick Texture Plaster Terre Plalette (Spectrum, Coral or equivalent) incoprating fine fillments made of polymer and aggergating natural stone powder with making grooves on base coat of 20 mm thick smooth mala plaster (which paid seperately) etc. complete.Colour and shade as approved by Architect/ Engineer in charge for at all floor, all height.	Smt	Separate Sheet Attached	
74	Providing and fixing Chicken mesh jali (22 gauge) at the junction of 2 different surfaces of different material component at the time of plastering to prevent cracking in plaster surface as and where directed at all floors with all leads and lifts etc.complete.	Smt	Separate Sheet Attached	
75	Providing throting or plaster drip and moulding to rcc chhajja for all floor.	Rmt	Ch.5 - Item Code: 5018, Item No 5.4.18	Refer General Technical Specification
76	Providing 20 mm thick water proof cement plaster using water proofing powder 1Kg./ 1bag of cement for all floors on brick/ concrete wall work using water proofing materials in C M 1:4 (1 cement 4 coarsse sand) including finishing with a floating coat of neat cement slurry etc complete for all floor. and shall be guaranteed for minimum period of 10 years after handing over the completed building by the main contractor to be finished as directed. Stamp paper guarantee 10 years to be furnished before receiving any payment from the client.	Smt	Separate Sheet Attached	

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
77	Applying two coats of putty & two coats of primer of approved brand and manufacture on new wall surface to give an even shade including thoroughly brushing the surface free from mortar dropping and other foreign matter and sand papered smooth.	Smt	(Ch-19, Item Code: 19032)	Refer General Technical Specification
78	Providing and applying Wall painting (three coats) with plastic emulsion paint of approved brand and manufacture on under coated wall surface to give an even shade including throughly brushing the surface free from mortor droppings and other foreign matter and sand paperd smooth on new work to give an even shade for all height	Smt	Ch.18 Item Code 18031+ 18032	Refer General Technical Specification
79	Finishing wall with weather proof low velocity ultima exterior emulsion paint on wall surface (two coats) to give an required shape even shade after thoroughly brushing the surface to remove all dirt, and remains of loose powdered materials.etc complete for all height	Smt	Item Code: 19031	Refer General Technical Specification
80	Provding and fixing M.S.plain grills of required pattern with M.S. flats at required spacings & frame around, square or round bars with round headed bolts and nuts or by screws including applying a priming coat of red lead paint two coat of Oil paint.	Kg.	Separate Sheet Attached	
81	Provding and Fixing of Mild Steel Hollow Profile Section of 1.25 mm thick for Door Frames of size 125 mm x 65 mm with Heay Stainless Steel 4' Long Hinges (4 no Each Side). The Frame Should be of Approved Shape, Single Rabate or double rebate as per site Requirement and as per instruction of Engineer incharge he Frame Sections of Doors shold be fixed with heavy hold fasts and with Necessary Cement Mortar (1:4) Filling inside holow portion and also include two coat of Oil paint including red lead primer etc complete After Fixing of Frame.	Rmt	Separate Sheet Attached	
82	Providing and fixing flush door both sides laminated shutter fabricated from 35 mm thick solid core malemine faced three layered pre laminated flat pressed wood based exterior grade bonded BWP/ BWR synthetic resin having stamped IS 12823 grade I type II including three coats of lacquer polishing to exposed wooden surfaces and Stainless steel decorative type designs fixtures/ fastening etc.including I.T.W. triangular batten patti of size 30m.m.x30m.m.etc. as per architectural detailed drawing and as directed by engineer in charge.	Smt	Separate Sheet Attached	

Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/	
83	Providing and fixing Three Track Domal window having extruded aluminum Colour anodized 60 micron Sliding section outer frame size 80 mm x 45 mm weight 1.555 Kg./ m (Jindal Section code: 21376) and shutter frame 27 mm x 65 mm weight 0.851 Kg./ m (Jindal Section code: 21490) and Section inner patti size 38.70 mm x 28.50 mm weight 0.303 Kg./ m (Jindal Section code 19453) with 5 mm clear glass (Modi or Saint Gobain) including one additional shutter ss mosquito jali and including all accesible accesories complete etc. or as directed Engineer in charge.	Smt	Item Code: 11027	Refer General Technical Specification
84	Providing and fixing standared extruded of alluminium section of size 63.50 x 38.10 x 1.95 mm @ Wt 1.094Kg./ Rmt with colour anodized alluminium frame with 5 mm thick transparent bronze colour tinted float glass with colour anodized alluminium frame for ventilation with 5 mm thick frosted glass as details etc complete for.window	Smt	Item Code: 11029	Refer General Technical Specification
85	Providing and Fixing heavy duty S.S. Door Closer as directed by Engineer In charge.	Each	Separate Sheet Attached	
86	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid door/ window/ Ceosetory windows & other Frames/ Chowkhat comprising of virgin PVC polymer of K value 58- 60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/ wheat husk) and non toxic additives (maximum oxicity index of 12 for 100 gms) fabricated with miter joints after star headed SS screws having minimum frame density of 750 Kg./ cum, screw withdrawal strength of 2200 N (Face) & 1100 N (Edge), minimum compressive strength of 58 N/ mm <sup>2</sup> , modulus of elasticity 900 N/ mm <sup>2</sup> and resistance to spread of flame of Class A category with property of being termite/ borer proof, water/ moisture proof and fire retardant and fixed in position with M.S hold fast/ lugs/ SS dash fasteners of required dia and length complete as per direction of Engineer-In-Charge. (M.S hold fast/ lugs or SS dash fasteners shall be paid for separately). Note: For WPC solid door/ window frames, minus 5mm tolerance in dimensions i.e depth and width of profile shall be acceptable. Variation in profile dimensions on plus side shall be acceptable but no extra payment on this account shall be made. applying PVC solvent cement and screwed with full body threadedComplete as per direction of Engineer-in-Charge. 1) Frame size 45 x 70 mm	Rmt	Separate Sheet Attached	

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87	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/ wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 Kg./ cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/ mm <sup>2</sup> , modulus of elasticity 850 N/ mm <sup>2</sup> and resistance to spread of flame of Class A category with property of being termite/ borer proof, water/ moisture proof and fire retardant and including stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S. screws, Handles, Stopper, Door closer, Tower bolt all as per direction of Engineer-In- Charge. (Note: stainless steel butt hinges and necessary S.S. screws shall be paid separately) 1) 30 mm thick	Smt	Separate Sheet Attached
88	Providing and laying 16-18 mm thick polished granite stone machine cut in single piece (Max. available) in sill and jambs of door, window, ventilation & lift wall cladding, staircase flooring landing, risers & treads, skirting laid over 10 mm thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry with matching pigment incl. rubbing and polishing, half rounding edge and incl. fixing of hilty fastener at every 1/ 3 span of sill as required size etc. complete colour and shed as approved by architect engineer in charge.	Smt	Separate Sheet Attached
89	Providing and laying Granite slab (18 mm thick) one side polished flooring over 20 mm (average) base of cement mortar 1:6 (1 cement: 6 coarse sand) or L.M 1:1.5 laid and jointed with grey cement slurry including rubbing and polishing complete.	Smt	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
90	Providing and Laying 600mm x 600 mm full body Double Charge Vitrified Glossy tiles 9 to 10 mm thick tiles for flooring including skirting over 20 mm (average) base of cement mortar 1:6 (1 cement: 6 corse sand) on new surface or fixing on existing flooring by adhesive material including and jointed with colour cement slurry including finished with flush pointing & cleaning the surface etc. complete. Pattern Colour and shade as approved by architect. etc completed as directed by E.T.C/ PMC. approximately 20% area will be dark shade and dark shade shall be decided by EIC.providing Expansion joint @ every 5mt filled with epoxy siealant	Smt	Separate Sheet Attached	
91	Providing and Laying SBR 2 tiles adhasives below flooring with cement mortar as per instruction of EIC	Liter	Separate Sheet Attached	
92	Providing and laying machine cut, mirror polished, Italian Marble stone flooring laid in required pattern in linear portion of the building all complete as per architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement: 4 coarse sand) laid and jointed with white cement slurry @ 4.4 Kg./ Smt, including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. 1) 18 mm thick Italian Marble stone slab, Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	Smt	Separate Sheet Attached	
93	Providing and laying cement concrete flooring 1:2: 4 (1 cement: 2-coarse sand: 4-graded stone aggregate 20mm nominal size) laid in one layer and finished with a floating coat of neat cement. (B) 50mm thick. (upto 10 ton)	Smt	Ch.14, Item Code: 14015B, 14.71	Refer General Technical Specification
94	Providing and laying 24" x 24" Vitrified double charge 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 (1cement: 6 coarse sand) or L.M 1:1.5 laid on new surface or fixing on existing flooring by adhesive material including dismantalling of existing flooring and jointed with colour cement slurry including finished with flush pointing & cleaning the surface etc.complete For Antiskid	Smt	Ch. 14, Item Code: 14021	Refer General Technical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
95	Providing and laying Ceramic tiles 6mm thick in flooring treads of steps and landing laid on a bed of 12mm thick cement mortar 1:3 (1-cement: 3-coarse sand) finishing with flush pointing in white cement. (upto 10 ton)	Smt	(ch-14, Item Code: 14008B)	Refer General Technical Specification
96	Providing and laying coloured glazed tiles of the size 300 mm x 200 mm x 8 mm/ 300 mm x 450 mm x 8 mm in skirting, risers of steps and dedo on 10 mm. thick cement plaster 1:3 (1 cement: 3 coarse sand) & jointed with white cement slurry.	Smt	(ch-14, Item Code: 14036)	Refer General Technical Specification
97	Providing and laying 19mm x 65mm round, 'D' edge and polished granite pencil patti on top, with cement paste and including backing coat in C.M. 1:4. All joints filled with colour/ epoxy grout and wiped to give sharp joints with flush pointing and washed clean with acid etc.	Rmt	Separate Sheet Attached	
98	Providing and fixing Sand which type Granite platform including supplying and fixing granite stone 18 mm thick mirror polished 1st quality Granite stones in top and side posiition and vertical strip at front over 25 mm thick polished kotah stone platform fixing in top and sides and intermediates supports fixing with cement mortar and adhesivee and finishing including cutting for fixing of sink any size (as directed by engineer incharge) at required position etc complete.	Smt	Separate Sheet Attached	
99	Providing and laying chequered terrazo tiles 22mm thick with marble chips of sizes upto 6mm in floors on 25mm thick bed of Lime mortar 1:1.5 (1-Lime putty: 1.5 coarse sand) or C.M. 1:6 (1 -cement: 6 - coarse sand) jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete. (A) Light shades using white cement	Smt	Item Code: 14006AA	Refer General Technical Specification
100	Providing and fixing Flexible Homogeneous Vinyl Flooring of With treatment of Polyurethane Reinforced Surface, Densely Compacted, Anti-Bacterial and fungicidal and Antistatic having thickness of 2.00mm With weight of 3150 g/ m2 etc completed as directed by E.T.C/ PMC.	Smt	Separate Sheet Attached	
101	Providing and laying machine cut free edges machine double polished Kota stone for shelves in cupboard and walls in single piece (Miximum 1.50 mt.) 25 mm including cutting grooves in walls and fixing the stone with neat cement slurry in true line and level etc completed as directed by E.T.C/ PMC. for Shelves	Smt	Separate Sheet Attached	

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
102	Providing & fixing 18 mm thick of approved quality of green marble urinal partition in single piece of size 0.62 x 1.20 mt. in cement mortar 1: 1 (1 cement: 1 coarse sand) and finishing with white cement including polishing on bothsides, finishing edges with round shape of marble etc completed as directed by E.T.C/ PMC.	Smt	Separate Sheet Attached
103	All the waterproofing activities shall be carried out by in-house application company of the principal material manufacturer and provide a written corporate Supply Apply Corporate Warranty from the principal manufacturer that all work executed will be free from defects in materials, workmanship and free of leaks for a period of 10 years from the date of Work Completion, unless resulting from structural defects or causes other than the work of this section. Said defects shall be remedied by the principal manufacturer for the period of the warranty without additional cost to the owner for waterproofing material only. Providing and applying hydrophilic crystalline based waterproofing system In two coat application.The application to be done from + ve(positive) side on a wet open pore green concrete surface at coverage of 0.8to1Kg./ Smt as per manufacturer specification.It should be hydrophilic in nature, should be able to grow crystals year after year to seal microcracks.The product should confirm to DIN1048 part5 and should provide in depth crystallization.The material and application warranty to be given by manufacturer's authorized distributor/ applicator on prescribed format for10 years.Note: Treated area should be screeded using hydrophilic crystalline admixture KIM(Krstol Internal Membrane) @ 2% for be stresults: Application of crystalline coating to be done within 7days of casting of concrete	Smt	Separate Sheet Attached
104	All the waterproofing activities shall be carried out by in-house application company of the principal material manufacturer and provide a written corporate Supply Apply Corporate Warranty from the principal manufacturer that all work executed will be free from defects in materials, workmanship and free of leaks for a period of 10 years from the date of Work Completion, unless resulting from structural defects or causes other than the work of this section. Said defects shall be remedied by the principal manufacturer for the period of the warranty without additional cost to the owner for waterproofing material only.	Smt	Separate Sheet Attached



Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
105	Providing & laying china mosaic flooring of approved make for plain and curved surfaces at floor, dado, otta etc. comprising of 20 to 25 mm size broken pieces of ceramic/ glazed tiles (only white colour) laid over 1:6 cement mortar bedding including applying cement slurry at the rate of 2.75 Kg. per Sq.m. on plain or sloped surfaces and filling joints with white cement. The flooring/ dado shall be tampered with wooden rammer not exceeding 2 Kg. in weight to bring the mortar up to the surface including rounding of the junctions and extending them upto 15 cm along the parapet wall. The rate shall include any type of bands, vata, any colour, any pattern or design as per drawing, curing, cleaning with water and oxalic acid etc. complete as sample approved by Architect/ EIC. (Only plan area shall be measured including vata upto 150mm height). Rates should be inclusive of acid washing and vata.	Smt	Ch. 14, Item Code 14035	Refer General Technical Specification
106	Providing cement vata (10 cm x 10 cm size) quarter round in cement mortar 1: 1 including neat cement finishing watering etc. complete. For all floor	Rmt	Ch.17- Item Code 17015	Refer General Technical Specification
107	Providing and fixing in position S.S. railing(considering 1mt. height)by providing vertical support of 38 mm dia. pipe on top 50 mm dia stain less steel pipe rail with starting and end point vertical post of 50 mm dia with round ball on top of post including bending welding and fixing in R.C.C./ brick work as directed. (top 50 dia vertical 38mm dia at 1 mt. C/C & horizontal 3 No 25mm dia.). (testing is required of S.S. 304) for all floor	Rmt	Separate Sheet Attached	
108	Providing and fixing in position S.S. daso by providing top 50 mm dia stain less steel pipe rail with starting and end point vertical post of 50 mm dia with wall/ column including bending welding and fixing for staircase and balcony as directed. (testing is required of S.S. 304) for all floor	Rmt	Separate Sheet Attached	

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
109	Providing and fixing rough ground (packing) in the gap between wall or stone sill jambs and frame. The frame assembly/ surfaces to which is to be fixed with screws shall be inclusive (1) Anchor fasteners of Hilti HRDUGT 10 X 140 x70mm or equivalent at approx 2 No in 2 rmt length of part thereof as required to fix the aluminium frame) Av. 8 mm thick wooden seasoned C.P. teak wood/ water proof marine ply confirming to IS 710 filling the gap between wall or stone jambs, sills and frame on all sides (inside/ outside) and along the perimeter first with polyurethane baker rod and av. 10 mm thickness and then sealing the remaining gap with neutral grade sealant of approved make and color	Rmt	Separate Sheet Attached	
110	Providing and filling with scrap of AAC block (good quality) as a cinder as directed by engineer in charge in sunks in layers of 15 cm thk including watering placing ramming well etc. as directed.	Cmt	Separate Sheet Attached	
111	Providing & fixing Steel work welded, in built up sections framed work including cutting, hoisting, fixing in position and with one coat primer & two coat oil paint as per detail drawings etc. complete. in columns, beams and joists, channels M.S. flat, Angles, Pipes, tees flats with connecting plates or angle cleats STRUCTURAL STEEL	Kg.	Item Code: 20054	Refer General Technical Specification
112	Providing and Fixing 6 mm thick Lexan Polycarbonate multi wall roofing sheet fixed with hilti screw and rubber silicon sealer and aluminium strip of size 50 x 3 mm etc complete as directed by Engineer in charge	Smt	Item Code: 15019	Refer General Technical Specification
113	Providing and Fixing 10 mm thick multiwall polycarbonate roofing sheet UV resistant fixed with hilti screw and rubber silicon sealer and aluminium strip of size 50 mm x 3 mm etc complete as directed by Engineer in charge.	Smt	Separate Sheet Attached	
114	Providing & Laying plinth protection to building including excavation in ordinary soil and laying cement concrete (0.10 mt thk) 1:5: 10 using Stone aggregates of 20 mm nominal size in foundation Layer and above on PCC and providing and laying brick masonry 1:6 (1 cement: 6 course sand) and providing Cement Concrete 1:2: 4 (0.10 mt thk) (1 Cement: 2 Coarse Sand: 4 Stone Aggregate 20 mm nominal size) coping on top including Broom finishing (plaster 10 mm) with Square line (0.20 X 0.20) marking on Top and Side) and curing etc complete only top area should be measured	Smt	Separate Sheet Attached	

Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/	
115	Supplying and Installing of Metalium SL-4 type 84R Aluminium 0.65mm TCT Plain Exterior Grade Powder Coating of Panels and Back side Framming G.S. Black Exterior Louvre System. etc. complete as directed by Engineer-in-charge.	Smt	Separate Sheet Attached	
116	SIGNAGES HANGING FROM CEILING- Providing, Fabricating & Fixing signage's using 304 grade Stainless steel 1.5 mm thick brushed steel finish plate (2 No) with 8mm thk. Acrylic sheet covered with vinyl of approved colour, sandwiched between two S.S. plate and fixed with S.S. struds. Sandwiched plates should be fixed in 12mm X 12mm S.S. 1.5mm thk.304 grade frame and punched (laser cut) lettering carried out on both the S.S. plates of required size and text as directed by Engineer and hanged to ceiling with the help of S.S. 8mm thick chain at both ends with making all the fixing arrangement to the ceiling and to the plate complete. size: 12" x 6" etc completed as directed by E.T.C/ PMC.	Sq. Inch	Separate Sheet Attached	
117	Providing and fixing eco-friendly light weight calcium silicate false ceiling tiles having Tegular edge & 15 mm Thick Densified edges on the Tile Periphery for Extra Strength The Light weight calcium silicate ceiling tiles shall have, light reflection 85% non-combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity 0.043° w/ m KC. for the best thermal Insulation. The Light weight calcium Silicate tile shall be of approved texture Fine fissured/ Spintone/ Cosmos having NRC value of 0.5 & Globe having NRC value of 0.75 NRC or equivalent of size 595 X 595 mm to be laid on true horizontal level suspended inter locking metal grid of hot dipped galvanized steel sections (galvanizing @120 grams per Smt including both side) consisting of main 'T' runner suitably spaced at joints to get required length and size of 24X38mm made from 0.30 mm thick (minimum) sheet, 1200mm centre to centre, and cross 'T' of size 24X28mm made out of 0.33mm (Minimum) sheet spaced 1200mm along spaced between main 'T' at 600mm centre to centre to form a grid of 1200X600mm and secondary cross 'T' of length 600mm and size 24x28mm made of 0.30 mm thick (Minimum) sheet to be interlocked at middle of the 1200X600mm panel to form grid of size 600X600mm resting on periphery walls/ partitions on a perimeter wall angle pre-coated steel of size (24X24X3000mm	Smt	Ch-16, Item Code: 16006	Refer General Technical Specification

Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/	
118	Providing and fixing single layer waterproof gypsum board 12.5 mm thick of the make Newgood Group Co. Ltd. or equivalent & Newgood Group Co. Ltd. company sections using waterproof board of size 1220 mm x 1830 mm x 8.0 mm suspended by G.I suapender of size 25 mm x 3 mm with intermediate channel of size 18 mm x 40 mm x 0.80 mm at 1220 mm center to center ceiling section of size 40 mm x 35 mm x 0.55 mm at 457 mm center to center and perimetre chanel A of size 20 mm x 27 mm x 30 mm x 0.50 mm at edges & drops including paper tap sand soffit cleat, anchor fastener, scotch bolt connecting cleat joining compound top coat on ceiling including making necessary opening for light fitting, diffuser etc. complete as per detail drawing as directed.	Smt	Ch-16, Item Code: 16007	Refer General Technical Specification
119	Providing and fixing in position collapsible steel shutters with vertical channels 20 mm x 10 mm x 2 mm braced with flat iron diagonals 20 mm x 5 mm size with top & bottom rails of T iron 40 mm x 40 mm x 6 mm with 38 mm diameter steel pulleys complete with bolts, nuts, locking arrangements, stopper handles including applying a priming coat of red lead paint.	q	Ch-11, Item Code: 11003 NBO 11.6	Refer General Technical Specification
120	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc. including a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design. b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF/ Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc. c) The fastening brackets of Aluminium alloy 6005 T5/ MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316. Nylon separators to prevent bi-metallic contacts	Smt	Separate Sheet Attached	

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
121	Providing and fixing Structural Glazing with using the 17 Micron anodised of approved colour alluminium section as transium, mullium of size 63.5mm x 38.1mm x 2 mm with using 5 mm thick toughening reflective structural glass (Compliances with GRIHA standard) and fixed with silicone sealant and spacer tap and at corner sealed neoprene foam dust and Air sealed gasket mirred including scaffolding etc.complete with all necessary fitting and fixtures for openable window as per Architectural drawing.	Smt	Separate Sheet Attached	
122	Providing and laying mirror polished kotah stone(hand dressed chissel) slab flooring over 20 mm thick base of CM 1:6 laid over and jointed with grey colour cement slurry including rubbing and polishing with amery stone etc. complete. 25 mm thick	Smt	(Ch-14, Item Code: 14012A, It. No14.43)	Refer General Technical Specification
123	Providing and laying compacted W.B.M 100 mm thick of machin crushed B.T. Metal of size of size 45 mm to 63mm with using 20 % stone screenings (Grit) and stone dust as filler including spreading, watering and consolidation by vibratory roller etc. complete.	Cmt	Separate Sheet Attached	
124	Providing & Laying 15.00 cm thick M200 grade concrete trimix using P21(water reducing concrete admixture at 100 ml per bag of cement & recon 3 s fiber at 125 gm per bag of cement including making C channel 75 x 75 mm required to maintain level, slope and thickness of the concrete road leveling of placed concrete with surface vibrator and finishing with power floater & trowel light brooming the surface & including cutting & filling of expansion joint as directed by Engineer in charge.	Smt	Separate Sheet Attached	
125	Providing and fixing pre-cast Rubber Dye/ steel Dye inter locking concrete block 60mm thick with grade of concrete M300 pnumatic compressed/ vibrated mechanically and as per approved design Confirming to IS 15658: 2006 including 35 mm Sand layer for levelling and filling the joint with sand in proper line and level as per guidlines of IRC: SP 63-2018 etc. Complete.	Smt	Item Code: 14033	Refer General Technical Specification
126	Providing and fixing I - let style cloth curtain using approved good quality of cloth in light & dark matching colour combination for curtain back linning with ring patta colour matching and using with all req. hardware, materilas, including cutting & stitching etc complete.	Smt	Separate Sheet Attached	

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
127	Providing and fixing Rooms Window curtain with Curtian Stainles Steel rod and Middle Suppoet and Bracket with best quality and approved brand necessary etc comp. or as directed.	Rmt	Separate Sheet Attached
128	Supply & Installation external cladding using fibre cement plank of cassia/ straight grain/ teak coloured texture (External Grade) thickness 8mm and dimension 150mmX3000mm. Fibre cement plank should be of minimum density 1300Kg./ m3 ( $\pm 50$ ) and comply to ASTM C 1185 and ISO 8336 part (E) for confirming durability properties and BS 476 – part 5, 6 & 7, Thermal conductivity should be minimum 0.15 W/ m <sup>2</sup> K and PH value should be in the range of 7 – 8. Depending on height of structure Board to be fixed using Aluminium rectangular frame section of suitable gauge with minimum spacing 450mm to 600mm or as per direction of Engineer Incharge, Plank to be fixed using Screws of Tensile strength 34N and Shear strength 68N on framing maintaining distance of minimum 25mm between two planks. All plank to plank joints to be staggered and finished.	Smt	Separate Sheet Attached
129	STP on MBBR_Technology(200_KLD) PART -A, MEP WORK Planning, Designing, Detailing, Manufacturing, Supplying, Erection, Testing and Commissioning of Sewage Treatment Plant (STP) of 200 cu mt per day, including all electrical, mechanical equipment, interconnected piping, valves, pumps, instruments. Design and construction of RCC tanks i.e. oil & greace chamber, collection tank, bio reactor tank, tube settler, chlorine contact tank and final treated water tank with manhole cover & all other civil structure of the pump room of the plant to complete the job. Connection of the underground sewage line to STP as well as connection of treated water of STP to nearest drain and Bypass connection of STP to the drain point with required civil, piping work & accesories all included in the scope of work. Suitable size of Shade to be provided to cover up the entire STP plant. Aeration should be provided in both Collection as well as Bio-Reactor Tank. All wetted parts should be in SS304. STP should be based on MBBR Technology including primary treatment secondary treatment and tertiary treatment of having Multi Grade Filter, Activated Carbon Filter with necessary chlorine contact system, Poly Electrolyte Dosing system complete to treat raw seawge from Domestic liquid waste with output characteristics as follows: Parameter pH: 7 to 7.5	Each	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
130	Providing laying and jointing in true line and level 15 mm dia. U.P.V.C. Pipe (SCH -40) line including fittings of standard make as approved by Engineer In charge. Pipe shall be fixed on the wall with the help of clamp at every two meter C/C or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	Rmt	(Ch-23, Item Code: 23061)	Refer General Technical Specification
131	Providing laying and jointing in true line and level 25 mm dia. U.P.V.C. Pipe (SCH -40) line including fittings of standard make as approved by Engineer In charge. Pipe shall be fixed on the wall with the help of clamp at every two meter C/C or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	Rmt	(Ch-23, Item Code: 23062)	Refer General Technical Specification
132	Providing laying and jointing in true line and level 32 mm dia. U.P.V.C. Pipe (SCH -40) line including fittings of standard make as approved by Engineer In charge. Pipe shall be fixed on the wall with the help of clamp at every two meter C/C or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	Rmt	(Ch-23, Item Code: 23063)	Refer General Technical Specification
133	Providing laying and jointing in true line and level 40 mm dia. U.P.V.C. Pipe (SCH -40) line including fittings of standard make as approved by Engineer In charge. Pipe shall be fixed on the wall with the help of clamp at every two meter C/C or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	Rmt	(Ch-23, Item Code: 23064)	Refer General Technical Specification
134	Providing laying and jointing in true line and level 50 mm dia. U.P.V.C. Pipe (SCH -40) line including fittings of standard make as approved by Engineer In charge. Pipe shall be fixed on the wall with the help of clamp at every two meter C/C or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	Rmt	(Ch-23, Item Code: 23065)	Refer General Technical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
135	Providing laying and jointing in true line and level 65 mm dia. U.P.V.C. Pipe (SCH -80) line including fittings of standard make as approved by Engineer In charge. Pipe shall be fixed on the wall with the help of clamp at every two meter C/C or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	Rmt	Separate Sheet Attached	
136	Providing laying and jointing in true line and level 80 mm dia. U.P.V.C. Pipe (SCH -80) line including fittings of standard make as approved by Engineer In charge. Pipe shall be fixed on the wall with the help of clamp at every two meter C/C or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.	Rmt	Separate Sheet Attached	
137	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [D] 15 mm.	Rmt	Item Code: 23055	Refer General Technical Specification
138	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [E] 20 mm.	Rmt	Item Code: 23056	Refer General Technical Specification
139	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [F] 25 mm.	Rmt	Item Code: 23057	Refer General Technical Specification
140	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [G] 32mm.	Rmt	Item Code: 23058	Refer General Technical Specification



Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
141	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [H] 40 mm.	Rmt	Item Code: 23059	Refer General Technical Specification
142	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [I] 50 mm.	Rmt	Item Code: 23060	Refer General Technical Specification
143	Providing and fixing to wall ceiling and floor 10.0 Kg.F/Cm <sup>2</sup> working pressure polythene pipes of the following outside Dia. Low density, complete with special falnge compression type fittings, wall clipsetc. including making good the wall ceiling and floor. (F) 75mm	Rmt	Item Code: 23004F	Refer General Technical Specification
144	Providing and fixing to wall ceiling and floor 10.0 Kg.F/Cm <sup>2</sup> working pressure polythene pipes of the following outside Dia. Low density, complete with special falnge compression type fittings, wall clipsetc. including making good the wall ceiling and floor. (F) 110 mm	Rmt	Item Code: 23004G	Refer General Technical Specification
145	Supplying & installing Brass Ball Valve conforming to IS 778, of RB, Italy or equivalent. Ball valve must be having screwed ends. The ball valve should be with stand with maximum pressure up to 16 Kg./cm <sup>2</sup> Complete job as specified & directed. c) 50 mm	Each	Separate Sheet Attached	
146	d) 65 mm	Each	Separate Sheet Attached	
147	e) 80 mm	Each	Separate Sheet Attached	
148	Providing and fixing PVC SWR Nahni trap IS 14735 for drain - 100 mm diameter with jali of the following nominal diameter of self cleansing design with C.I scread down or hinged grating including the cost of cutting and making good the walls.	Each	(Ch-23, Item Code: 23068)	Refer General Technical Specification
149	Providing and fixing 600mm x 450mm Bevelled edge mirrror of superior glass mounted on 6mm thick A.C. sheet or plywood sheet and fixing to wooden plugge with C.P. brass screws and washers.	Each	(Ch-23, Item Code: 23024, 23.143)	Refer General Technical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
150	Providing and fixing wash down wall hung water closet(European type) of jaquar or equivalent with integral 'P' trap jointed within C.I pipe in C: M 1: 1 including matching seat cover, chair braket, Conceled metropole of jaquar or equivalent, 2 way bibcock of jaquar or equivalent, health foucet of jaquar or equivalent with 1 m extension pipe, toilet paper holder of jaquar or equivalent with all accessories etc. complete.	Each	Separate Sheet Attached	
151	Providing and fixing urinals of jaquar or equivalent with integral drain pipe jointed within C.I pipe in C: M 1: 1, Conceled cock, all accessories etc. complete.	Each	Separate Sheet Attached	
152	Providing and Fixing autoclosing concealed urinal flush valve with wall flange complete. As directed by EIC.	Each	Separate Sheet Attached	
153	Providing & Fixing C.P Brass waste for washbasin or sink (a) 32 mm Dia	Each	Ch. 23 Sr. No 23020A Item No: 23.135	Refer General Technical Specification
154	Providing and fixing C.P. brass towel rail comlete with C.P. brass brackets fixed to wooden plugs with C.P. brass scews. (B) 600mm x 20mm size.	Each	Ch. 23 Sr. No 23025 Item No: 23.14	Refer General Technical Specification
155	Providing and fixing screw down two way bib taps of 15mm dia- Brass down brigh polished jaquar code No FLR-5041N	Each	Separate Sheet Attached	
156	Providing and fixing pillar tap, capstan head, screw down high pressure with screws, shanks and back nuts. (i) 15mm dia.	Each	Ch.23, Sr.No 23029A, Item No 23.95	Refer General Technical Specification
157	Providing and fixing table top wash basin on 18mm thick black shade polished granite for top with 2 No of C.I. Heavy brecket with 1 No of wash basin Jaquar brand or equivalent, C.P. brass Jaquar pillar cock or equivalent, angle valve or equivalent, C.P. brass extension nipple 62mm long, S.S. flange water super connection pipe 60cm. long and full thread waste coupling includingm, bottle trap making hole in granite for wash basin etc. complete. (For all floor)	Each	Separate Sheet Attached	
158	Providing & Fixing soap dish of jaquar or equivalent make or as directed and complete.	Each	Separate Sheet Attached	
159	Providing & fixing CP brass double coat hook etc. complete.	Each	Separate Sheet Attached	
160	Providing and fixing 2 No support arms and backrest to mount at fixed height (Model R 1100 -Commander or equivalent) for handicap toilet complete as recommended by the etc completed as directed by E.T.C/ PMC.	Each	Separate Sheet Attached	

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
161	Providing and fixing raised toilet seat with cover for handicap toilet (Model R-35: Presalit – Commander or equivalent) as recommended by the etc completed as directed by E.T.C/ PMC.	Each	Separate Sheet Attached	
162	Providing and fixing brackets, tracks (Model R4140) with flexible feed & waste pipes for adjustable type wash basin complete as recommended, for handicap toilet (Make: Presalit – Commander or equivalent)etc completed as directed by E.T.C/ PMC.	Each	Separate Sheet Attached	
163	Providing and fixing to wall, ceiling, floor 10.0 Kg.f/ Sqcm working pressure polythelene pipes of 110mm dia. For rain water, low density, complete with special flange compression type fittings, wall clips etc. making good wall ceiling and floor.	Rmt	(Ch-23, It.code: 23004G, 23.8(G)	Refer General Technical Specification
164	Constructing brick masonry road gully chamber 500 mmx450mmx600mm incl.500 mmx450mm C.I.horizontal grating with frame complete	Each	(Ch-24, Item Code: 24013, 24.40)	Refer General Technical Specification
165	Providing & fixing S.W. Gully trap with C.I.grating brick masonry chamber & water tight C.I. Cover with frame of 300x300 mm size (inside)with standard weight. Square mouth trap 100mm x 100mm size P- type	Each	(Ch-24, Item Code: 24006A, 24.19.)	Refer General Technical Specification
166	Providing and fixing Gun metal check or non-return fullway wheel valve. (C) 25mm dia.	Each	Ch23, Item Code: 23031C, It. No23.99)	Refer General Technical Specification
167	Providing and fixing Gun metal check or non-return fullway wheel valve. (E) 40mm dia.	Each	Ch-23, Item Code: 23031E, It. No. 23.99)	Refer General Technical Specification
168	Constructing manhole with RCC top slab in 1:2: 4 mix (1 cement: 2 coarse and: 4 graded stone aggregate 20 mm nominal size) foundation concrete 1:3: 6 mix (1 cement: 3 coarse sand: 6 brick bats 40 + 50 mm size) inside plastering 15mm th.with cement mortar 1:5 (1 cement: 5 coarse sand) finished with a floating coast of neat cement and making channel in cement concrete 1:2: 4 mix (1 cement: 2 Coarse sand: 4stone aggregate 20mm nominal size) inside size 900 mm x1200 mm & 1, 5 m deep incl C.I.cover with frme size 1)A-type depth 0.90 m for 150 mm, 250(required dia) sewer	Each	Ch. No 24,, Item Code:: 24008A, 24.27	Refer General Technical Specification
169	Extra rate for constructing B.B masonry for every additional depth 0.10 meter or part thereof over item 24.27 (I) for depth from 0.90 meter to 1.50 meter.	Each	Ch. No 24, Item Code:: 24009A, 24.28	Refer General Technical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
170	Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with briocks having croshing strength not less than 35Kg. Cm2 in C.M. 1:5 C.I. cover with frame (Light duty) 455mm x 610mm intenal dimensions total weight of cover with frame to be not less than 38Kg. (Wt. of cover 23 Kg.) and Wt. of frame 15Kg.) (R.C.C. top slabe with 1:2: 4 mix (1-cement: 2- coarse sand: 4-graded stone aggregate 20mm size) foundation concrete 1:5: 10 inside plaster 15mm thick with cement mortar 1:3 finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete. (i) Inside dimensions 455mmx 610mm and 450mm deep for single pipe line	Each	Ch no 24 Item No: 24.44 Item Code: 24016A	Refer General Technical Specification
171	Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with briocks having croshing strength not less than 35Kg. Cm2 in C.M. 1:5 C.I. cover with frame (Light duty) 455mm x 610mm intenal dimensions total weight of cover with frame to be not less than 38Kg. (Wt. of cover 23 Kg.) and Wt. of frame 15Kg.) (R.C.C. top slabe with 1:2: 4 mix (1-cement: 2- coarse sand: 4-graded stone aggregate 20mm size) foundation concrete 1:5: 10 inside plaster 15mm thick with cement mortar 1:3 finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete. (ii) Inside dimensions 500mm x 700 mm and 450mm deep for pipe line with one or two inlets. (upto 10 ton)	Each	Item No: 24.44 Item Code: 24016BA	Refer General Technical Specification
172	Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with briocks having croshing strength not less than 35Kg. Cm2 in C.M. 1:5 C.I. cover with frame (Light duty) 455mm x 610mm intenal dimensions total weight of cover with frame to be not less than 38Kg. (Wt. of cover 23 Kg.) and Wt. of frame 15Kg.) (R.C.C. top slabe with 1:2: 4 mix (1-cement: 2- coarse sand: 4-graded stone aggregate 20mm size) foundation concrete 1:5: 10 inside plaster 15mm thick with cement mortar 1:3 finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete. (iii) Inside dimensions 600mm x 850mm and 450mm deep for pipe lines with three or more inlets. (upto 10 ton)	Each	Item No: 24.44 Item Code: 24016CA	Refer General Technical Specification
173	Extra over items 24.44 for every additional depth of 0.1M. of part thereof beyond 450mm depth for Brick masonry chamber. (i) for 455mm x 610mm size.	Each	Item No: 24.44 Item Code: 24017A	Refer General Technical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
174	Extra over items 24.44 for every additional depth of 0.1M. of part thereof beyond 450mm depth for Brick masonry chamber. (ii) for 500mm x 700mm size.	Each	Item No: 24.44 Item Code: 24017b	Refer General Technical Specification
175	Extra over items 24.44 for every additional depth of 0.1M. of part thereof beyond 450mm depth for Brick masonry chamber. (iii) for 600mm x 850mm size.	Each	Item No: 24.44 Item Code: 24017C	Refer General Technical Specification
176	Providing M.S. foot rests including fixing in manholes with 20 x20 x 10 cm cement concrete blocks 1:3: 6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) as per standard design with 20x20 mm square bar	Each	Separate Sheet Attached	
177	Providing and fixing C.I Manhole cover 0.60 mt x 0.45 mt size having weight not less than 35 Kg.	Smt	Ch-23, Item Code: 23038	Refer General Technical Specification
178	Providing, laying and fixing 200 mm wide PVC water stop of approved make and grade thickness in concrete work for water tightstructures like retaining walls of pound water body and underground water tank including cleaning and placing in line level etc. complete, as directed.	Rmt	Separate Sheet Attached	
179	Providing and fixing double coated Sintax or equivalent PVC (ISI) water tank of required capacity each with all necessary fittings and connection etc. complete on terrace.	Liter	Ch-22, Item Code: 22014	Refer General Technical Specification
180	Providing and fixing Stainless Steel A ISI 304 (18/ 8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required: Kitchen sink without drain board 610x510 mm bowl depth 200 mm, Kohler or Nirali Make Kitchen Sink 610 x 510mm with Sink spout of wall mounting type, NIRALI - GRACE - PLAIN	Each	Separate Sheet Attached	
181	Providing & Fixing health faucet with 8 mm dia 1 Mtr. long flexible tube and wall hook as per eic instruction.	Each	Separate Sheet Attached	
182	Providing and fixing dual flow flush valves etc. complete as directed by Engineer In Charge.	Each	Separate Sheet Attached	

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
183	Providing, laying and jointing in true line and level 110 diameter U.P.V.C (Type B) conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 110 mm diameter x 149 mm length x 145 mm heigh at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.	Rmt	Ch-23, Item Code: 23067	Refer General Technical Specification
184	Providing, laying and jointing in true line and level 160 diameter U.P.V.C (Type B) conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 160 mm diameter x 210 mm length x 196 mm heigh at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.	Rmt	Ch-23, Item Code: 23066	Refer General Technical Specification
185	Providing and fixing ECO Drain Pipes in including supporting the ECO Drain pipe on the bricks at each joint including leakproof joints ECO Drain Pipe etc., complete 200mm dia.	Rmt	Separate Sheet Attached	
186	Providing and fixing ECO Drain Pipes in including supporting the ECO Drain pipe on the bricks at each joint including leakproof joints ECO Drain Pipe etc., complete 300 mm dia.pipe	Rmt	Separate Sheet Attached	
187	Providing & Fixing C.P.Brass angle valve 15mm etc. complete.	No	Separate Sheet Attached	
188	Providing and fixing pre-cast concrete kerb stone of gray cement based concrete block 30cm length, 30cm height and 15cm thick of M250 grade concret as per approved design and including excavation for fixing in proper line and level, filling the joint with C: M 1:3 (1cement: 3fine sand) etc complete.	Rmt	Sr. No 14032	Refer General Technical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
189	Providing and Fixing ABS Plastic SPEED BUMP of Size: 750 MM x 250MM x75 MM, Per Mtr. # 4 No (2 black, 2 yellow), TOP DESIGN – LINE DESIGN ANTI SKID PATTERN FOR GRIP filling CEMENT INSIDE etc. complete as directed by Engineer-in-charge.	Rmt	Separate Sheet Attached
190	Providing & Fixing anchor fasteners including drilling in RCC/ Masonary Members, fastening with structural steel members etc complete. a) 8 mm dia.	Each	Separate Sheet Attached
191	Providing & Fixing anchor fasteners including drilling in RCC/ Masonary Members, fastening with structural steel members etc complete. b)10mm dia.	Each	Separate Sheet Attached
192	Providing & Fixing anchor fasteners. including drilling in RCC/ Masonary Members, fastening with structural steel members etc complete. c)12mm dia.	Each	Separate Sheet Attached
193	Providing & fixing of reinforcement bars (reinforcement bars shall be paid extra under relevant item of work) after drilling the hole of required diameter & depth, cleanning of the same, providing/ filling the hole with Injection Mortar inserting reinforcement bar etc. complete as per Manufacturers & architects instruction.The work shall be carried out by the technical workmens/ agency approved by the manufacturer and under technical supervision of Manufacturer of Injection grout including all materials, tool tackles, labour etc.complete. (a) 8 mm. dia.bar -Holes 12mm dia Depth 100mm	No	Separate Sheet Attached
194	Providing & fixing of reinforcement bars (reinforcement bars shall be paid extra under relevant item of work) after drilling the hole of required diameter & depth, cleanning of the same, providing/ filling the hole with Injection Mortar (HY 150 or approved equivalant), inserting reinforcement bar etc. complete as per Manufacturers & architects instruction.The work shall be carried out by the technical workmens/ agency approved by the manufacturer and under technical supervision of Manufacturer of Injection grout including all materials, tool tackles, labour etc.complete. (B) 10 mm. dia.bar -Holes 14mm dia Depth 100mm	No	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
195	Providing & fixing of reinforcement bars (reinforcement bars shall be paid extra under relevant item of work) after drilling the hole of required diameter & depth, cleanning of the same, providing/ filling the hole with Injection Mortar (HY 150 or approved equivalant), inserting reinforcement bar etc. complete as per Manufacturers & architects instruction.The work shall be carried out by the technical workmens/ agency approved by the manufacturer and under technical supervision of Manufacturer of Injection grout including all materials, tool tackles, labour etc.complete. (C) 12 mm. dia.bar -Holes 16mm dia Depth 120mm	No	Separate Sheet Attached	
196	Providing & fixing of reinforcement bars (reinforcement bars shall be paid extra under relevant item of work) after drilling the hole of required diameter & depth, cleanning of the same, providing/ filling the hole with Injection Mortar (HY 150 or approved equivalant), inserting reinforcement bar etc. complete as per Manufacturers & architects instruction.The work shall be carried out by the technical workmens/ agency approved by the manufacturer and under technical supervision of Manufacturer of Injection grout including all materials, tool tackles, labour etc.complete. (D) 16 mm. dia.bar -Holes 20mm dia Depth 160mm	No	Separate Sheet Attached	
197	Providing laying (two level or slopes) and jointing reinforced concrete light duty, non-pressure pipes I.S. class NP-2 of the followings internal diameter with collars and butt ends prepared for collar joints including testing of joints complete. 250 mm	Rmt	(Ch-24, Item Code: 24007C)	Refer General Technical Specification
198	Supplying and fixing reinforced concrete heavy duty non-pressure pipes with collars for culverts including setting and joining the pipes in C.M. 1:2 watering and laying (to level or slope) of I.S. class NP2 of following internal diameters. (iii) 450 mm dia.	Rmt	Chap: 26 24007EA	Refer General Technical Specification
199	Providing & Fixing iron steps of size 500mm x 150mm x 22.5 mm and painting with two coats of anticorrosive paint etc. complete.	No	Item No code- 24010, 24.33	Refer General Technical Specification
200	Water Tank Overflow Alarm Wired Sensor Security System with installation providing and fixing all necessary installation pipe fitting with 6 sensor and controller and cable fitting as well.	No	Separate Sheet Attached	



Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/	
201	Providing and constructing SOAK WELL of 2.50m internal dia and 6.00 depth internal clear dimension including the cost of excavation, PCC 1:4: 8 foundation for honey combed masonry in C.M. 1:4 (1cement: 4 sand), casting R.C.C. 1:2: 4 (1cement: 2 sand: 4 graded stone aggregate 20mm nominal size) top slab 12 thick with C.I. manhole cover 600mm x 450mm size of 35 Kg. weight and 75mm dia C.I. pipe 1800mm long with 75mm dia cowel vent and filling the wall 1000mm in depth with dry brick bats including providing vata in C.M. 1:3 (1cement: 3 sand), curing including cost of reinforcement etc. complete as per detailed drawing and directed by E.I.C.	Each	Separate Sheet Attached	
202	Construction Septic tank inside dimension of 4.00 m in length & 2.50 m in width & 2.00 m depth including excavating any type of soil as shown and mentioned in the drawing, providing and laying 0.10 m thick plain cement concrete 1:3: 6 (1 cement: 3 coarse sand: 6 graded stone agg.) 40 mm thick IPS flooring at bottom with brick masonry 0.23 m thick walls CM 1:5 (1 cement: 5 coarse sand) and intermediate partition CM 1:4 & RCC Top slabs 12 cms thick in 1:2: 4 (1 cement: 2 coarse sand: 4 graded stone agg) including reinforcement as per design and 15 mm thick cement plaster in CM 1:4 with floating coat of neat cement slurry inside, top and around tank below 15 cm on ground level, Also provide Two No CI Manhole frame and cover of size 60 cm x 45 cm & 75 mm dia. PVC 10 Kg.f/ Sq cm pressure air vent pipe in 3.00 length with cowl etc complete as per direction of Engineer in charge.	Each	Separate Sheet Attached	
203	Hording Erection of approved size (20'x10') including 2" MS square pipe/ gurdur, 1.5" pipe framing G.I sheet 26 or 28 gauge, Flex. as per the Architect's instructions & approval.	No	Separate Sheet Attached	
204	Providing and fixing bright finish 2 mm thick Stainless steel (Grade 304) letters size up to 350 cm height in English language fixed in wall with screws and nails and any height including scaffolding etc complete as per instruction of Engineer-in-charge.	No	Separate Sheet Attached	
205	Providing and fixing chromium plated brass half turn flush cock of approved quality including fixing in pipe line etc. complete. (ii) 25 mm dia	Each	Ch 23, Item Code: 23032B, Sr.No: 78	Refer General Technical Specification
206	Providing and fixing screw down bib taps of following size: (B) Brass chromium plated screw down bib tap (I) 15 mm dia.	Each	Ch 23, Sr.No: 63, Item Code: 23028B1	Refer General Technical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
207	R.O. SYSTEM 250 LPH Providing and supplying, testing and commissioning of RO System of 250 LPH Plant with all instalation charges and pipeing charges including of transportation loading, unloading, automatiion with product water tank with 1000 liter storage tank.	No	Separate Sheet Attached	
208	Providing and fixing G.I. Rain water spout of 50mm dia. and 30cm. length.	No	Item No: 23039	Refer General Technical Specification
209	(B) Grid Tied Solar Power System: 11-25 kW (3 - phase) Supply, Installation, Testing & Commissioning of following size of Grid Tied Solar Power Plant with Solar Panels (ALMM approved): Frame Material: Anodized Aluminum alloy Frame With Twin Wall Profile, Front Cover: High Transmission Low-Iron Tempered Glass (AR Coated), High efficiency and positive power tolerance Pmax: 0/ + 5, Module Efficiency should be approx. 18%-21%, Normal operating temperature 45'C, Junction Box with Waterproof IP67 & MC4 Compatible and Enclosed with Bypass diodes, 100% Electroluminescence test to ensure error free Modules, Thep. temp. co-efficient of the PV module shall equal or better than -0.45%/degree C. Solar PV modules of minimum fill factor 75% to be used. Unit Production: 4 to 5 Unit/ kw/ day (Actual)(1Year Avg) With 10 year Product warranty and 25 year Linear Power Warranty., Solar Inverter: MPPT Range: 80-1000 V, Max efficiency: 97.5% - 98.9%, O/ p Frequency: 50/ 60Hz, Operating Altitude (m) ≤4000, O/ p Power Factor: ~1, O/ P THDi: <3%, Operating Tempreture Range: 25~60°C, Anti-islanding Protection: (Excluding GEDA Application fees, Solar connectivity Charges, Meter connectivity Charges, Meter testing Charges.)	KW	14.1.1	Refer Electrical Specification

Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/	
210	<p>S.I.T.C of Poly Crystline/ Mono Crystline PV Module (ALMM approved) with 72 Cells - 150 Cells or More, Frame Material: Anodized Aluminum alloy Frame With Twin Wall Profile, Front Cover: High Transmission Low-Iron Tempered Glass (AR Coated), High efficiency and positive power tolerance Pmax: 0/ + 5, Module Efficiency should be approx. 18%-21%, Normal operating temperature 45'C, Junction Box with Waterproof IP67 &amp; MC4 Compatible and Enclosed with Bypass diodes 100% Electroluminescence test to ensure error free Modules, Thw temp. co-efficient of the PV module shall equal or better than -0.45%/degree C. Solar PV modules of minimum fill factor 75% to be used. Unit Production: 4 to 5 Unit/ kw/ day (Actual)(1Year Avg) With 10 year Product warranty and 25 year Linear Power Warranty.</p> <p>(E) Module o/ p Range: 520 - 545 watt, Maximum Power Voltage Vmpp: 41 - 42 V, Maximum Power Current Imp: 12.5 - 13 A</p>	Watt	14.2.1	Refer Electrical Specification
211	<p>S.I.T.C of Solar Inverter Grid Tied: MPPT Range: 80-1000 V, Max efficiency: 97.5% - 98.9%, O/ p Frequency: 50/ 60Hz, Operating Altitude (m) ≤4000, O/ p Power Factor: ~1, O/ P THDi: &lt;3%, Operating Temperature Range: 25~60°C, Anti-islanding Protection: Integrated, Input Reverse Polarity Protection Integrated, Insulation Resistor Detection Integrated, Residual Current Monitoring Unit Integrated, Output Over Current Protection Integrated, Output Short Circuit Protection Integrated, Output Over Voltage Protection Integrated, Protection Degree: IP65, User Interface LCD &amp; APP, Datalogger &amp; Communication: GPRS/ Wi-Fi (Optional)</p> <p>(C) Solar Inverter: 6 kW to 15 kW: Max. input Current: 22 A, Max DC i/ p Power: 7800-19500 W &amp; Nominal o/ p Power: 6000-16500 W, Nominal O/ p Voltage: 400 V 3-Phase, Nominal O/ p Current: 10-24A,</p>	Watt	14.3.1	Refer Electrical Specification

Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/	
212	<p>Supplying and Erecting Seamless Box Pipe of suitable size for rooftop solar installations with good stability against wind, Thickness 2 mm and 80 micron, Hot Dipped Galvanized steel coils. suitable arrangement for base plate for foundation, solar panel mounting, the structure should be suitable for carry the load of solar panel, wiring, sprinkler system etc. with necessary foundation work/ wall mount, j bolt, anchor fastner etc. the nut bolt used for installtion of stucture should be (SS 304) quality.</p> <p>box. pipe ref. size (A) 40 x 40 x 2mm, (B) 50 x 50 x 2mm, (C.) 60 x 40 x 2mm, (D) 72 x 72 x 2.5mm</p>	Kg.	14.4.1	Refer Electrical Specification
213	<p>DC Cable: Electron beam cross linked compound, UV, Ozone, Temperature &amp; Hydrolysis resistant Flame Retardant, Low Smoke Excellent Encapsulation Very long/ Service life &gt; 25 Standards/ Material Properties: Fire performance: IEC 60332-1-2 Smoke emission: IEC 61034/ EN 50268-2 Halogen Free: EN 50267-2-1/ -2, IEC 60754-2 Toxicity: EN 50305, ITC – Index &lt;3 Ozone Resistant: EN50396 Weathering UV: HD 605/ A1 or DIN 53367 Approvals: EN 50618; H1Z2Z2-k with suitable sized of PVC pipe(ISI Mark) and Clamps, Shadels, Lugs. (B) 1 core 4 Smtm copper DC cable Colour Black</p>	Mtr.	14.5.1	Refer Electrical Specification
214	<p>S.I.T.C of Distribution board from AC Side, ACDB 3-Phase - 21 kW - 50 kW: AC1 DUTY CONTRACTOR-80A 4P, 100A MCCB 4P(Cat III), 3 PHASE SPD, VOLTAGE MONITORING RELAY, ELR WITH CBCT, PHASE INDICATING LAMP, POWER CABLE &amp; OTHER ACCESSORIES, All switchgears and connection are enclosed with IP66 Enclosure and operate the position.</p>	EA	14.6.4	Refer Electrical Specification
215	<p>S.I.T.C of Distributiob System DC Side, DCDB - 20 kW - 25 kW (5in: 5out): Input Mcb - 1000 V, 16 Amp, 1000 V DC SPD TYPE 2, TERMINAL/ END, PLATE/ END CLAMP: 4SmtM (KUT6) FOR OUTPUT, DC CABLE With suitable size of interconnection.</p>	EA	14.7.5	Refer Electrical Specification
216	<p>Supplying &amp; Errecting MC4 Connector Male - Female Set for Solar DC Cable which is installed in Solar PV-module/ Inverter/ DCDB etc.</p>	EA	14.8.1	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
217	<p>Electric Motor Driven Hydrant and Sprinkler Pump Location - Plant Room</p> <p>Providing, Installing, testing and commissioning of Fire authority approved Electrical driven fire pump suitable for automatic/ manual operation consisting of the following-Rates for erection of pump only End Suction, high pressure, single/ multistage centrifugal type fire pump having cast iron body, bronze impeller, stainless steel shaft &amp; capable of delivering 2280LPM (38 LPS) against a total head of 60Mtr. while running at 2900 RPM complete with proper connection to suction and delivery line, and including bypass arrangement for testing of pumps as per the requirement. Suitable mechanical seal with mounting aggangement shall be included, having a name plate indicating suction, delivery, head, discharge, stages, RPM and direction of rotation. Pump shall be capable of furnishing not less than 150% of rated capacity at a head not less than 65 % of rated head. The shut off head shall not exceed 120% of rated head. Squirrel cage, induction motor, TEFC type suitable for 415 + 10%V, 3 phase, 50 Hz, AC supply, of suitable HP rating for the above pump with synchronous speed of 2900 RPM conforming to IP 55 protection &amp; class 'F' insulation. The motor shall conform to IS 325 1978 (up to date) with flexible coupling and coupling guard. Factory Fabricated Common base plate for mounting pump and motor fabricated of mild steel channel as per manufacturer's recommendation with heavy duty Anti Vibration pads (4 No, heavy duty). Grouting bolts to be provided and installed by vendor at his cost</p> <p>Flexible Coupling and coupling guard for direct coupling of pump and motor</p>	set	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
218	<p>Electrical Motor Driven Jockey Pump For Hydrant and Sprinkler System Location - Plant Room</p> <p>Providing, Installing, testing &amp; commissioning of fire authority approved electrically driven Jockey pump suitable for automatic/ manual operation consisting of the following:</p> <p>Vertical mounted multistage jockey pump having cast iron body, S.S. impeller, stainless shaft with mechanical seal capable of delivering 180 LPM against total head of 60 Mtr. while running at 2900 RPM complete. The system shall be complete with necessary pressure gauge with gun metal shut off cock on delivery side including bypass arrangement for testing of working of the pumping set as required. The pump should meet the requirement of IS 15105: 2002 and must be approved by the local fire authority. Squirrel cage induction motor suitable for 415 + 10%V, 3 phase, 50 Hz, AC supply of suitable HP rating for the above pump with synchronous speed of 2900 RPM T.E.F.C type connected to pump with flexible coupling and coupling guard.</p> <p>Factory fabricated Common base plate for mounting pump and motor fabricated of mild steel channel as per manufacturer's recommendation with heavy duty 4 No Anti Vibration pads. (Cushy foot). grouting bolts to be provided and installed by the vendor at his cost.</p> <p>Suitable reinforced cement concrete pump foundations as per manufacturer's design including foundation bolts, washers as required.</p>	set	Separate Sheet Attached

Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/
219	<p>Diesel Engine Driven Fire Pump For Hydrant &amp; Sprinkler System [Stand by pump] Location - Plant Room</p> <p>Providing, Installing, testing &amp; commissioning of fire authority approved Diesel Engine driven fire pump suitable for automatic/ manual operations consisting of the following: Horizontal split casing, high pressure single/ multistage centrifugal type fire pump having cast iron body, bronze impeller, stainless steel shaft &amp; capable of delivering 2280 LPM (37 LPS) against a total head of 60 M while running at 2300 RPM complete with proper connection to suction and delivery line, and including bypass arrangement for testing of pumps as per the requirement. Mechanical seal shall be included, having a name plate indicating suction, delivery, head, discharge, stages, RPM and direction of rotation. Stainers at pump input shall be provided as per manufacturer requirements. Pump shall be capable of furnishing not less than 150% of rated capacity at a head not less than 65% of the rated head. The shut off head shall not exceed 120% of rated head. Water cooled heat exchanger type diesel engine of required BHP or as per manufacturer at 1500 RPM for the above pump complete with standard accessories &amp; suitable cooling system as described in specifications. Common base plate for mounting pump &amp; engine of required strength manufactured out of M.S. channels as per manufacture's recommendation with heavy duty Anti Vibration pads. (Cushy foot) (6 No, heavy duty). Flexible Coupling &amp; coupling guard for direct coupling of engine &amp; pump. Suitable reinforced cement concrete pump foundations as per manufacturer design including foundation bolts, washer as required. The capacity of day oil tank shall be such that to allow the diesel engine to run on full load for 2 hour storage tank of welded construction confirming to IS-2552. Tank shall be provided with inlet, outlet, overflow, air vent, drain connections, filling connection &amp; magnetic level indicator. Tank shall be mounted on a suitable steel structure (Painted with 2 coats of red oxide paint). Tank shall be provided with epoxy coat from inside &amp; two or more coats of synthetic enamel paint outside over two coats of red oxide primer. Diesel storage tank shall be double skin. 24 volts 180 AH lead acid battery (12 volts - 2 No) with boost/ Trickle charger for starting the engine automatically complete as required. Diesel Engine driven pump of</p>	set	Separate Sheet Attached
220	<p>Providing, fixing, testing and commissioning of air vessel (size 350 mm dia &amp; 1500 mm height) fabricated shell from 8 mm thick &amp; dished end 10 mm thick M.S. Plate for pressurization of hydrant/ sprinkler/ curtain nozzle system complete with adequate pressure switches (as per design/ requirement) with valve to operate as per operating sequences including 50 mm dia drain valve, 25 mm dia safety valve, 25 mm dia inlet with isolating valve duly painted from inside and out side complete as required. (For Hydrant/ Sprinkler &amp; curtain nozzle system).</p>	set	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
221	Fire pump panel (Combined for All Pumps) and electrical works - Starter panel with star delta or as per CFO approved starters rated to suite pump HP with necessary protection feautres like SPP/ ELR/ OL/ SC/ phase and on off indicating lamps. The busbars shall be of Al - 0.8 A/ sq mm size. Panel shall be fabricated from 14G sheet steel with seven tank process powder coated and shall be min IP 52. Panel shall have Ammeter/ Voltmeter and KWh meter. Cabling/ earthing from panel to pump shall be scope of vendor without any extra cost. Cabling - supply/ laying and terminating, shall be Al XLPE armoured/ Cu XLPE armoured/ as per manufacturers specifications with necessary terminal box to terminate the cables. Panel shall be rated min for 25KA fault level. Cable trays - hot dip GI ladder type 16 gauge with required supports shall be used for cabling. Panel shall have one incomer MCCB/ ACB of required rating where by incoming supply and earthing shall be terminated by electrical contractor. Starters shall be suitable for respective motors. panel to take inputs from pressure switch/ on-off switch. Flow switch wiring shall be in suitable mms pvc consuits. Panel should be manufactured by CPRI approved panel builder	set	Separate Sheet Attached
222	Providing and fixing of dial type Pressure Guage having 100 mm dial & range of 0-16 Kg./ cm2 with syphon and cock.	Each	Separate Sheet Attached
223	Providing and fixing of dial type <b>Pressure Switch.</b>	Each	Separate Sheet Attached
224	Providing and fixing, testing and commissioning of CI Buterfly valve (PN 16) with integrally moulded linear of nitrile or EPDM. Stainless steel Disc & Steam Lever operated with ISI Marked as required. 150 mm dia.	Each	Separate Sheet Attached
225	Providing and fixing, testing and commissioning of CI Buterfly valve (PN 16) with integrally moulded linear of nitrile or EPDM. Stainless steel Disc & Steam Lever operated with ISI Marked as required. 100 mm dia.	Each	Separate Sheet Attached
226	Providing and fixing, testing and commissioning of CI Buterfly valve (PN 16) with integrally moulded linear of nitrile or EPDM. Stainless steel Disc & Steam Lever operated with ISI Marked as required. 80 mm dia.	Each	Separate Sheet Attached



Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
227	Providing and fixing, testing and commissioning of CI Buterfly valve (PN 16) with integrally moulded linear of nitrile or EPDM. Stainless steel Disc & Steam Lever operated with ISI Marked as required. 65 mm dia.	Each	Separate Sheet Attached
228	Providing, fixing, testing and commissioning of CI dual plate non-return valve (PN 16) of following sizes conforming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required. 150 mm dia.	Each	Separate Sheet Attached
229	Providing, fixing, testing and commissioning of CI dual plate non-return valve (PN 16) of following sizes conforming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required. 65 mm dia.	Each	Separate Sheet Attached
230	Providing and fixing, testing and commissioning of C.I.Y-Strainer/ Foot valve class (PN 16) rating of size 150 mm dia.	Each	Separate Sheet Attached
231	Providing, fixing, testing and commissioning of above ground G.I. Class-C pipes as per IS: 1239 and IS: 3589 with pipe fittings (Upto & Including 50 NB Socket weld fittings & 65 NB above butt weld fittings) including all require supports, hanger rods, Beam clamp, L Patti, nut bolt, structural steel etc. with thickness to be as per standard complete.painting of one coat of rich zinc primer and 2 or more coats of synthetic enamel paint of approved make/ shade complete as per specification. (Apporx Qty) 150 mm dia.	RM	Separate Sheet Attached
232	Providing, fixing, testing and commissioning of above ground G.I. Class-C pipes as per IS: 1239 and IS: 3589 with pipe fittings (Upto & Including 50 NB Socket weld fittings & 65 NB above butt weld fittings) including all require supports, hanger rods, Beam clamp, L Patti, nut bolt, structural steel etc. with thickness to be as per standard complete.painting of one coat of rich zinc primer and 2 or more coats of synthetic enamel paint of approved make/ shade complete as per specification. (Apporx Qty) 100 mm dia.	RM	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
233	Providing, fixing, testing and commissioning of above ground G.I. Class-C pipes as per IS: 1239 and IS: 3589 with pipe fittings (Upto & Including 50 NB Socket weld fittings & 65 NB above butt weld fittings) including all require supports, hanger rods, Beam clamp, L Patti, nut bolt, structural steel etc. with thickness to be as per standard complete.painting of one coat of rich zinc primer and 2 or more coats of synthetic enamel paint of approved make/ shade complete as per specification. (Apporx Qty) 80 mm dia.	RM	Separate Sheet Attached
234	Providing, fixing, testing and commissioning of above ground G.I. Class-C pipes as per IS: 1239 and IS: 3589 with pipe fittings (Upto & Including 50 NB Socket weld fittings & 65 NB above butt weld fittings) including all require supports, hanger rods, Beam clamp, L Patti, nut bolt, structural steel etc. with thickness to be as per standard complete.painting of one coat of rich zinc primer and 2 or more coats of synthetic enamel paint of approved make/ shade complete as per specification. (Apporx Qty) 65 mm dia.	RM	Separate Sheet Attached
235	Providing, fixing, testing and commissioning of above ground G.I. Class-C pipes as per IS: 1239 and IS: 3589 with pipe fittings (Upto & Including 50 NB Socket weld fittings & 65 NB above butt weld fittings) including all require supports, hanger rods, Beam clamp, L Patti, nut bolt, structural steel etc. with thickness to be as per standard complete.painting of one coat of rich zinc primer and 2 or more coats of synthetic enamel paint of approved make/ shade complete as per specification. (Apporx Qty) 50 mm dia.	RM	Separate Sheet Attached
236	Providing, fixing, testing and commissioning of above ground G.I. Class-C pipes as per IS: 1239 and IS: 3589 with pipe fittings (Upto & Including 50 NB Socket weld fittings & 65 NB above butt weld fittings) including all require supports, hanger rods, Beam clamp, L Patti, nut bolt, structural steel etc. with thickness to be as per standard complete.painting of one coat of rich zinc primer and 2 or more coats of synthetic enamel paint of approved make/ shade complete as per specification. (Apporx Qty) 40 mm dia.	RM	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
237	Providing, fixing, testing and commissioning of above ground G.I. Class-C pipes as per IS: 1239 and IS: 3589 with pipe fittings (Upto & Including 50 NB Socket weld fittings & 65 NB above butt weld fittings) including all require supports, hanger rods, Beam clamp, L Patti, nut bolt, structural steel etc. with thickness to be as per standard complete.painting of one coat of rich zinc primer and 2 or more coats of synthetic enamel paint of approved make/ shade complete as per specification. (Apporx Qty) 25 mm dia.	RM	Separate Sheet Attached
238	Providing and fixing 25 mm dia inspection & testing assembly with Test valve, sight glass, drain valve (Ball valve 50mm dia) union with corrosion resistant orifice & connection to drain (All complete stricitly as per Drawing).	Each	Separate Sheet Attached
239	Providing and fixing of UL listed electrically operated Flow indicating switch (vane type) of following diameter with threaded connection with flexible full bore paddle & NO/ NC contact terminals as specified complete with all accessories and necessary wiring. 150 mm dia	Each	Separate Sheet Attached
240	Providing and fixing of UL listed electrically operated Flow indicating switch (vane type) of following diameter with threaded connection with flexible full bore paddle & NO/ NC contact terminals as specified complete with all accessories and necessary wiring. 100 mm dia	Each	Separate Sheet Attached
241	Providing, fixing, testing and commissioning of anti corrosive treatment for under ground pipes with 2 coats of asphaltic primer and wound with polymeric tap of thickness 4 mm with 15 mm overlapping as per IS: 10221. 150 mm dia.	RM	Separate Sheet Attached
242	Providing, fixing, testing & commissioning of Stainless steel single headed ISI marked oblique pattern hydrant/ landing valves with 80mm dia flanged inlet & 63 mm dia instantaneous type female outlet complete with stainless steel cap and GI chain, twist release type plug, and all accessories as per IS: 5290 -1983 (Type 'A') including fixing with anchor fasteners and flanged tapping.	Each	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
243	Providing supply, erection, commisioning and testing of First aid hose reel drum wall mounted, swinging type as per IS: 884 and & comprising of 3 ply rubber hose of length specified in schedule of items, 20 mm (3/ 4") nominal bore (25 Kg./ cm2/ 350 psi bursting pressure), mild steel pressed reel with 170 degree swinging, nozzle of G M chromium plated, with non-jamming controlling handle which shall stay at the 'ON' 'OFF' position as set, wall brackets with 'U' shaped reel carrier made of C I complete with 25 NB G M valve at the inlet, and fitted with 20mm dia x 36.5 meters long high pressure rubber hose pipe with adequate M.S. bracket for holding hose reel drum fitted in position on wall complete as required inside the Hose Box.	Each	Separate Sheet Attached
244	Providing, fixing, testing and commissioning of Standard SS branch pipe with nozzle of 20 mm nominal bore outlet as per IS: 903 suitable to fit with standard instanteneous type 63 mm dia coupling.	Each	Separate Sheet Attached
245	Providing, fixing, testing and commissioning of Weather proof standard fire hose cabinet stand mounting type (750 mm x 600 mm x 300 mm deep) having single or double opening with M.S. Fabricated Stand, necessary locking arrangement by allan key suitable for housing 1 No hose pipe, 1No Branch pipe & nozzle spaner.	Each	Separate Sheet Attached
246	Providing, fixing, testing and commissioning of 2 No 63 mm dia 15m long RRL hose pipe with 63 mm dia. Male and female gun metal couplings duly binded with GI wire, rivets etc. conforming to IS 636 (type-A) as required.	Each	Separate Sheet Attached
247	Supplying, fixing, testing and commissioning of 4 way fire brigade connection of cast iron body with 2 No gun metal instanteneous inlet couplings complete with cap and chain as required for 150 mm dia MS pipe connection, conforming to IS 904 as required.	Each	Separate Sheet Attached
248	Providing, fixing, testing and commissioning of gun metal air release valve with connection in the riser & control valve.	Each	Separate Sheet Attached
249	Getting Approval of Fire Hydrant system from local fire authority and any other relevant statutory authority at initial and various other stages of work, including preparation of report/ drawings as per fire authority. Contractor shall include cost of all liason work which are not explicitly mentioned above but are mandatory to have fire authority approval (*any statutory charges will be paid extra).	Job	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
250	Providing and fixing of 15 mm dia quartzoid bulb type brass sprinkler head(UL Approved)suitable for sustaining pressure on seat & water hammer effect. The type and temperature rating shall be as follows. (Apporx Qty) 15 mm dia - Pandent type sprinkler 57oC Rating	Each	Separate Sheet Attached
251	Providing and fixing of 15 mm dia quartzoid bulb type brass sprinkler head(UL Approved)suitable for sustaining pressure on seat & water hammer effect. The type and temperature rating shall be as follows. (Apporx Qty) 15 mm dia - Upright type sprinkler 57oC Rating	Each	Separate Sheet Attached
252	Providing AUTOGLOW Signages in Block/ Small Letters of Specified Sizes: Fire lift size: 4" X 12"	Each	Separate Sheet Attached
253	Providing AUTOGLOW Signages in Block/ Small Letters of Specified Sizes: Fire Hydrant: 4" X 12"	Each	Separate Sheet Attached
254	Providing AUTOGLOW Signages in Block/ Small Letters of Specified Sizes: "DCP" Extinguisher: 8" X 4"	Each	Separate Sheet Attached
255	Providing AUTOGLOW Signages in Block/ Small Letters of Specified Sizes: "CO2" Extinguisher: 8" x 4"	Each	Separate Sheet Attached
256	Providing AUTOGLOW Signages in Block/ Small Letters of Specified Sizes: In case of Fire, do not use lift, use staircase: 8" x 8"	Each	Separate Sheet Attached
257	Providing AUTOGLOW Signages in Block/ Small Letters of Specified Sizes: Fire Exit 8" x 8"	Each	Separate Sheet Attached
258	Providing & fixing monoamonium phosphate base stored pressure type Dry Chemical Powder Extinguisher of capacity 6 Kg. as per IS 15683 with hanging bracket & accessories.	Each	Separate Sheet Attached
259	Providing & fixing Carbon Dioxide type Fire Extinguisher of capacity 4.5 Kg. as per IS 15683 with squeeze grip type operation with swivel horn, hanging bracket & accessories.	Each	Separate Sheet Attached
260	Providing and fixing of fire alarm and pump trigger system as per requirement and specification consisting of following items Manual call point:	No	Separate Sheet Attached
261	Providing and fixing of fire alarm and pump trigger system as per requirement and specification consisting of following items Hooters:	No	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/
262	Providing and fixing of fire alarm and pump trigger system as per requirement and specification consisting of following items Pump On/ Off switch:	No	Separate Sheet Attached
263	Providing and fixing of fire alarm and pump trigger system as per requirement and specification consisting of following items 4 core 1.5 sq.mm cu. Flexinble wire with pvc pipe & hardware for pump on/ off switch (Apporx Qty)	Mtr.	Separate Sheet Attached
264	Providing and fixing of fire alarm and pump trigger system as per requirement and specification consisting of following items 2 core 1.5 sq.mm cu. Flexinble wire with pvc pipe & hardware for MCP/ HOOTER(Apporx Qty)	Mtr.	Separate Sheet Attached
265	Providing and fixing of control panel <b>2 zone</b> for fire alarm & pump trigger system complete as per the requirement of the system.	Each	Separate Sheet Attached
266	Providing and fixing M.S. structural work fabricated from standard sections, (MS rounds, angles, channels etc.) including cutting to size, drilling, welding, including cost of fasteners, clamps in RCC structural members as directed, including two or more coats of synthetic paint over one coat of primer after surface preparation including cutting and making good walls (Structural other than pipe suppoort).	Kg.	Separate Sheet Attached
267	Providing, installation, testing and commissioning of 2 loop addressable type fire alarm panel which shall be operated on 230 V, 50 Hz with battery charger & battery	Each	Separate Sheet Attached
268	Providing, Installation, Testing and Commissioning of addressable smoke detectors, it shall support base mounted isolator modules and the detectors shall have Led for Indication and output for reaponse indicator complete as required	Each	Separate Sheet Attached
269	Providing, Installation, Testing and Commissioning of addressable Fixed Temperature and Rate of Rise Heat Detectos, it shall support base mounted isolator modules and the detectors shall have Led for Indication and output for reaponse indicator complete as required	Each	Separate Sheet Attached
270	Providing, Installation, Testing and Commissioning of addressable looped power type manual break glass unit with ressettable key.	Each	Separate Sheet Attached

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
271	Providing, Installation, Testing and Commissioning of addressable looped power type strobe combined hooters 120 db output.	Each	Separate Sheet Attached	
272	Providing & Laying of 2C X 1.5 Sq. mm. Cu. Armoured Cable including Screw, grip, shaddle etc. (Apporx Qty)	Mtr.	Separate Sheet Attached	
273	Providing, fixing, testing and commissioning of Fire Draw off Connection as per IS: 904 having 100 mm dia inlet with 100 mm dia Butterfly valve necessary fittings, flanges, nutbolts, gasket and all required accessories.	No	Separate Sheet Attached	
274	Supplying, Installation, Testing and commissioning of 2 C X 1.5 Smtm Copper Armoured for Flow Switch Cabling from Annunciation panel to Flow Switch.	Mtr.	Separate Sheet Attached	
275	Providing, fixing, testing and commissioning of Annunciator panel for flow control switch, providing Audio/ Visual indicating of actuation of automatic sprinkler system for each zone complete as per specifications with provision for 10 zones "Indication of zone fire", Indication of zone fault, "Fire/ Fault hooter", Alarm cancel for fire/ fault, "Battery for emergency	No	Separate Sheet Attached	
276	Providing, fixing, testing and commissioning of SS Flexible drops 1200mm Long. Unbraided, Maximumm Service pressure 175PSI, . Sprinkler Flexible Drop system is a ready to use assembly to fit sprinkler heads in desired location in a suspended ceiling. It easily positions the sprinkler in center of the ceiling tile at a correct height.	No	Separate Sheet Attached	
277	Supply, fixing of Rosser Plate cap for sprinkler heads to be mounted at false ceiling/ vertical.	No	Separate Sheet Attached	
278	Point wiring for Light/ Bell with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 Mtr. length, in below type of pipe erected with 6A Modular type switch/ bell push & accessories and earth continuity of following type, erected on PVC/ Metallic/ Wooden box, single mounting base frame covered with textured/ metallic/ white front plate modules erected on/ in wall/ ceiling as per pipe erected, with necessary Lamp holder/ ceiling rose/ H.D.Connector as directed. (f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ ceiling complete Cat. III	Pt.	1-2-1.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
279	<p>Point wiring for FAN with 2-1.5 sq.mm &amp; earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV Grade FRLS PVC insulated multi strand copper wires up to 10 Mtr. length, in below type of pipe erected with 6A Modular type switch and hum free EME step type electronic fan regulator mounted and accessories with earth continuity of following type erected on PVC/ Metallic/ Wooden box, single mounting base frame covered with textured/ metallic/ white front plate modules erected on/ in wall/ ceiling as per pipe erected. with necessary ceiling rose/ H.D.Connector as directed.</p> <p>(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ ceiling complete Cat-III</p>	Pt.	1-2-2.	Refer Electrical Specification
280	<p>Point wiring for Individual Plug with &amp; earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 Mtr. length, in below type of pipe erected complete with Modular type switch &amp; 5 pin Plug erected on PVC/ Metallic/ Wooden box covered with appropriate front plate modules erected on/ in wall/ ceiling as per pipe erected with following type of accessories.</p> <p>[I] For 6A Plug and 6 a switch with 2-1.5 sq.mm Cu. Wire from nearby switchboard/ mcb db board</p> <p>(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ ceiling completeCat-III</p>	Pt.	1-2-3.	Refer Electrical Specification
281	<p>Point wiring for on board Looped Plug with 6A Modular type switch &amp; 5 pin socket erected on PVC/ Metallic/ Wooden box, single mounting base frame covered with textured/ metallic/ white front plate modules erected on/ in wall/ ceiling with following type accessories. Cat.III</p>	Pt.	1-2-4.	Refer Electrical Specification
282	<p>Providing following type of Modular Type Accessories mounted with PVC/ metallic/ Wooden box, single mounting base frame covered with textured/ metallic/ white front plate, modules erected with necessary connections as per site situation directed by Engineer In charge.</p> <p>(9) 16 Amp. SP one way switch Cat.III</p>	Pt.	1-2-6.	Refer Electrical Specification



Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
283	Providing following type of Modular Type Accessories mounted with PVC/ metallic/ Wooden box, single mounting base frame covered with textured/ metallic/ white front plate, modules erected with necessary connections as per site situation directed by Engineer In charge. (10) 6/ 16Amp. Universal socket Cat.III	Pt.	1-2-6.	Refer Electrical Specification
284	Point wiring for Two Way Controlled Light Point with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires erected in below type of pipe with 6A Modular type switches and following type of accessories erected on PVC/ Metallic/ Wooden box, single mounting base frame covered with textured/ metallic/ white front plate modules erected on/ in wall/ ceiling as per pipe erected. with necessary batten/ angle holder or ceiling rose or H.D.Connector as directed.ss will be considered as Mains for Secondary Point. (f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ ceiling complete Cat-III	Pt.	1-2-5.	Refer Electrical Specification
285	Point wiring for secondary light point with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires, in below type of pipe to be erected complete with earth continuity and necessary connection with primary light with accessories erected on Metal/ PVC/ wooden box covered covered with appropriate front plate modules erected on/ in wall/ ceiling for open/ concealed wiring. with necessary Lamp holder/ ceiling rose/ H.D.Connector as directed.as per pipe erected with following type of accessories.Note: Maximum up to 6 Mtr.s length, excess will be considered as Mains for Secondary Point. (f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ ceiling complete Cat-III	Pt.	1-1-4.	Refer Electrical Specification
286	Providing following type of Modular Type Accessories mounted with PVC/ metallic/ Wooden box, single mounting base frame covered with textured/ metallic/ white front plate, modules erected with necessary connections as per site situation directed by Engineer In charge. (3) Two Pin/ RJ-11 Telephone Socket [A] For One Gang Cat-III	No	1-2-6.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
287	(4) TV Co-axial Socket outlet Cat-III	No	1-2-6.	Refer Electrical Specification
288	(7) Blank Plate Single Cat-III	No	1-2-6.	Refer Electrical Specification
289	(8) Computer Open RJ-45 socket Cat-III	No	1-2-6.	Refer Electrical Specification
290	(19) Modular Indicating Call Bell Cat.III	EA	1-2-6.	Refer Electrical Specification
291	(20) Modular Buzzer Cat.III	EA	1-2-6.	Refer Electrical Specification
292	Conduits & Pipes Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/ in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed a) 20 mm	Mtr.	1-3-2.	Refer Electrical Specification
293	b) 25 mm	Mtr.	1-3-2.	Refer Electrical Specification
294	c) 32 mm	Mtr.	1-3-2.	Refer Electrical Specification
295	Providing & erecting PVC Corrugated Flexible Conduit with required No. of coupling, PVC bushes, Check-nuts etc. complete of following sizes. (2) 20 mm	Mtr.	1-3-4.	Refer Electrical Specification
296	(3) 25 mm	Mtr.	1-3-4.	Refer Electrical Specification
297	Supplying & erecting UPVC Mini trunking (PVC Casing-n-Capping) having double-locking arrangement with grooves, trunking of size not below 12.5 mm in height as per IS with accessories of PVC/ Resin polypropylene not below 1.8 mm thick duly sealed in joint & erected on wall/ ceiling of following size. (2) 25 mm	Mtr.	1-3-5.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
298	Supplying and laying UPVC cable trunking system comprising unplasticised polyvinyl, chloride rigid material with ignition free and flame proof confirming BS with necessary end caps Internal and external bend, flat bends, coupler, tee etc. All necessary accessories and measuring of following sizes (3) 50 mm x 50 mm trunking	Mtr.	1-3-6	Refer Electrical Specification
299	Mains & Wires Providing and erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected concealed in/ flushed on wall/ ceiling, with 1.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity of following size (a) with medium class Rigid PVC pipe and accessories (b) 2 wire 2.5 sq. mm	Mtr.	1-4-1.	Refer Electrical Specification
300	Mains with 1.1 KV grade FRLS PVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected in/ on wall/ ceiling with 2.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity of following size (a) 2 wire 4 sq. mm	Mtr.	1-4-2.	Refer Electrical Specification
301	Providing & Erecting approved make following size of TV Co-axial flexible cable comprising inner conductor of solid bare copper insulated with Foam PE & Secondary conductor made of poly - Aluminium film bonded Al. Braids @ suitable coverage overall sheathed with black PVC insulation. a) RG -6	Mtr.	1-4-6	Refer Electrical Specification
302	Supplying & erecting approved make Telephone Cable electrolytic copper conductor PE insulation twisted in two pairs, & wrapped with FRLS PVC tape & sheathed with FRLS PVC or HFFR outer Jacket suitable for telephone wiring & confirming to C-DOT erected in existing pipe. of following size of conductors & No.of pairs. With necessary connections. A. Conductor Size 0.5 mm (a) (2) Unarmoured 10). Two Pair	Mtr.	1-4-7	Refer Electrical Specification
303	Supplying & erecting approved make LAN cable of following size in existing pipe as per direction [C] CAT - 6	Mtr.	1-4-8	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
304	Providing & erecting main Distribution (MDF) indoor type, back mounted frame as per DoT standard approved with krone strips (a) Suitable for 10 pair	No	1-4-9	Refer Electrical Specification
305	ARMOURED ALLUMINIUM CABLES. Providing and erecting XLPE(IS: 7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench/ pipe of following size of cables (F) 3 1/ 2 core 120 Sq. mm (70 Sq. mm 1/ 2 core)	Mtr.	4-3-3.	Refer Electrical Specification
306	Providing and erecting XLPE (IS: 7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench/ pipe of following size of cables d) 4 Core 16 Sq.mm.	Mtr.	4-3-5.	Refer Electrical Specification
307	c) 4 Core 10 Sq.mm.	Mtr.	4-3-4.	Refer Electrical Specification
308	ARMOURED COPPER CABLES. Providing and erecting XLPE(IS: 7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench/ pipe at road crossing or floor of following size of cable. b) 3 Core 6 Sq.mm.	Mtr.	4-4-2.	Refer Electrical Specification
309	B) 3 Core 4 Sq.mm.	Mtr.	4-4-2.	Refer Electrical Specification
310	Providing and erecting XLPE(IS: 7098)(I)-88 ISI armoured cable multistrand/ Solid Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench/ pipe at road crossing or floor of following size of cables. (B) 4 core 4 Sq. mm	Mtr.	4-4-4.	Refer Electrical Specification
311	MISCELLANEOUS. Making trench in soft soil of suitable width of 90 cms deep for laying cable or locating the fault all over the run and back filling the same and making the surface as a normal ground.	Mtr.	4-5-1.	Refer Electrical Specification
312	Drilling the road without breaking the road surface (Asphalt) for laying of cable for feeding power supply by making upto 150mm dia. size of holes at both ends complete. (A) Up to 100 mm bore dia	Mtr.	4-5-4.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
313	Providing and erecting iron clad cable route marker duly marked with ELE. CABLE of size 23 cms.X 12 cms. Flushed with ground in cement foundation as directed by Engineer incharge.	No	4-5-5.	Refer Electrical Specification
314	Providing & laying approved make Double walled corrugated pipes (DWC) of polyethylene (conforming to IS 14930 II)with necessary connecting accessories of same material at required depth in existing trench for laying of cable. below ground/ road surface for enclosing cable (A)50 mm outer dia	Mtr.	4-5-8.	Refer Electrical Specification
315	Providing & laying approved make Double walled corrugated pipes (DWC) of polyethylene (conforming to IS 14930 II) with necessary connecting accessories of same material at required depth in existing trench for laying of cable. below ground/ road surface for enclosing cable (D)120 mm outer dia.	Mtr.	4-5-8.	Refer Electrical Specification
316	CABLE GLANDS. Providing and, fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables. (C) 2 to 4 core 10 Sq. mm	No	4-6-1.	Refer Electrical Specification
317	d) 2 to 4 Core 16 Sq.mm	No	4-6-1.	Refer Electrical Specification
318	Providing and, fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables. (E) 3 & 1/ 2 core 120 Sq. mm	No	4-6-3.	Refer Electrical Specification
319	CABLE LUGS. Solder less crimping type Aluminium lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/ cadmium plated nut bolts in an approved manner. (B) 10 Sq.mm	No	4-7-1.	Refer Electrical Specification
320	(C) 16/ 25 Sq.mm.	No	4-7-1.	Refer Electrical Specification
321	(G) 120 Sq.mm.	No	4-7-1.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
322	Providing and fixing printed instruction chart both in English and Gujarati and duly framed with front glasses, for treatment of person suffering from Electric shock with minimum 50" diagonally size.	No	10-2-1.	Refer Electrical Specification
323	Supplying & erecting carbon dioxide (CO2) fire extinguisher user of following capacity with necessary clamps made from 50 x 6 mm M.S. Flat with nut & bolts grouted in wall complete. [A] For 4.5 Kg. Capacity	Ea	10-2-26	Refer Electrical Specification
324	MINIATURE CIRCUIT BREAKERS. providing and erecting Miniature circuit breaker single pole 6A to 25A suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/ 1996 with ISI Mark Cat-III	No	3-10-1(B).	Refer Electrical Specification
325	Providing & erecting 240 V MCB double pole switch for lighting Load (B Curve) having 10 KA breaking capacity & confirms to IS: 8828 in existing box having following capacity (A) 6 to 32 Amp. Cat-III	No	3-10-3.	Refer Electrical Specification
326	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS: 8828 in existing box having following capacity (c)63 Amp. Cat.III	No	3-10-5.	Refer Electrical Specification
327	Providing & erecting 415V MCB Four Pole Switch for Lighting Load (B curve) having 10KA breaking capacity & confirms to IS: 8828 in existing box having following capacity (b)40 Amp. Cat.III	No	3-10-4.	Refer Electrical Specification
328	Providing and erecting Sheet Steel powder coated MCB distribution board - flush/ surface mounted fitted with busbar, neutral link, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate No. of MCBs. (The DBs should be used of same company of MCB to be used) suitable for (B) three phase incoming and single phase horizontal type outgoing Per phase isolation type (PPI) (ii)6 way	No	3-11-5.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
329	Providing and erecting Sheet Steel powder coated MCB distribution board - flush/ surface mounted fitted with busbar, neutral link, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate No. of MCBs. (The DBs should be used of same company of MCB to be used) suitable for (B) three phase incoming and single phase horizontal type outgoing Per phase isolation type (PPI) (iii)8 way	No	3-11-5.	Refer Electrical Specification
330	Providing and erecting Sheet Steel powder coated MCB distribution board - flush/ surface mounted fitted with busbar, neutral link, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate No. of MCBs. (The DBs should be used of same company of MCB to be used) suitable for (A) single phase incoming and horizontal single phase outgoing (ii)6 way	No	3-11-5.	Refer Electrical Specification
331	EARTH LEAKAGE CIRCUIT BREAKERS. providing and erecting Approved make RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 10 KA and suitable for operation on single phase 240 V, 50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed (ii) 40Amps. DP Cat-III	No	3-12-1.	Refer Electrical Specification
332	(iii) 63 Amps. DP Cat-III	No	3-12-1.	Refer Electrical Specification
333	(i) 25 Amps.DP Cat-III	No	3-12-1.	Refer Electrical Specification
334	Providing and erecting metallic vitrified danger notice board as per language suggested by engineer incharge for MEDIUM VOLTAGE installation to be erected as per IS-2551.	No	3-13-1.	Refer Electrical Specification
335	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 KA. at 415 V. having Normal current rating 200A.with variable Thermal & magnetic release suitable to work on A.C.supply 50 c/ s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S.housing ICS=100% of ICU only Cat III	EA	3-4-3.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
336	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 25 KA. at 415 V, having normal current rating up to 25 A to 100A. with Fixed thermal & magnetic release suitable to work on A.C. supply 50 c/ s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing. ICS=100% of ICU only Cat III	No	3-4-1.	Refer Electrical Specification
337	Supplying and erecting triple pole & neutral 440V/ 500V panel mounting Copper Busbars with four equal No. of electrolyte bus having current density not more than 1.6 Amp./ sq.mm (Rated current/ cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports/ insulators, main cable socket to each bar, erected in existing cubical panel with necessary connections. (B) Suitable for 200 Amp. capacity	Rmt	3-8-2.	Refer Electrical Specification
338	<b>CUPBOARDS.</b> Providing & erecting weather proof, dust & vermin proof, floor mounted front operated indoor type cubical panel board having IP-64 protection made from 14 SWG thick CRC M.S. sheet for outer body & doors, 16 SWG thick CRC M.S.Sheet for internal partitions with necessary supporting angles, flats including cutting, bending, drilling, welding, riveting with internal partitions & cable alley as per requirements & instruction of engineer-in-charge with erection of supplied switch gears, BUSBARS, with suitable size of inter connecting PVC copper wire/ copper-aluminium strips, rubber grommets, rib, bakelite control fuses for measuring instruments, earth bus & earth bolts, foundation flange - bolts-base Plates, sufficient No. of hinged doors, handles with locking arrangement and rubber gasket complete. The Panel shall be painted with epoxy powder coating. (The rates excludes the cost of switchgears, bus bars, inter connecting mains & Copper Aluminium strips, meters, Fuses etc. The dimension shall be measured excluding base beams) The panel shall be supplied with following approved manufacturers with following size. (B) The standard companies switch gear shall be used and only manufacturers at CPRI approved factory (i) with 350mm depth	Smt	3-16-1	Refer Electrical Specification
339	Supplying and erecting approved make suitable panel indicator LED type lamp, lens cover, complete erected with necessary connections.	No	9-2-9.	Refer Electrical Specification



Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
340	providng and erecting Approved make energy meter 3 phase 4 wire unbalanced load rating, 10A to 60 Amp. based on ASIC(Application specific Integral Circuits) digital technology with accuracy Class - 1, temper proof, free from effect of external magnetic field with 3 phase indication, earth & impulse indication, 6 digit electro mechanical impulse counter, suitable work on 120 V to 300V per phase 45-55 HZ, housed in robust enclosure with erection as directed. Cat. III	Each	3-15-3	Refer Electrical Specification
341	providng and erecting Suitable set of CTS for 100A Energy Meter	Each	3-15-7.	Refer Electrical Specification
342	Supplying and erecting approved make panel mounting type Digital Voltmeter having 3 digits LED display, 0 to 750 AC Volts range erected on existing panel board with all connection, wiring etc.with manufacturers calibration certificate.	EA	9-2-2.	Refer Electrical Specification
343	Supplying and erecting approved make panel mounting type Digital Ammeter having 3 digits LED display, external CT operated, calibrated for 0 to 1000 Amps suitable to operate on 500 Volt AC, erected on existing panel board with all connection, wiring etc.with manufacturers calibration certificate.	EA	9-2-4.	Refer Electrical Specification
344	Supplying and erecting Ammeter/ Voltmeter selector switch for 3 phase AC Supply 500 V on existing panel board with necessary connections.	EA	9-2-6.	Refer Electrical Specification
345	Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size (Specifically for control panel, relays, power switchgears, motor starters & control wiring) with required size of copper lugs, nuts and bolts if required. (d) One wire 4.00 sq. mm	Mtr.	1-4-4	Refer Electrical Specification
346	(e) One wire 6.00 sq. mm	Mtr.	1-4-4	Refer Electrical Specification
347	(f) One wire 10.00 sq. mm	Mtr.	1-4-4	Refer Electrical Specification
348	(g) One wire 16.00 sq. mm	Mtr.	1-4-4	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
349	Providing, erecting, fabricating the M.S. structure as per requirement on site incorporating proper size of M.S. angles, flats, bars, channels, sections complete with cutting, welding, grinding & finishing duly painted with one coat of red oxide with erection on site as per direction of engineer in charge with necessary grouting, cementing, plastering & finishing complete.	Kg.	3-16-4-A	Refer Electrical Specification
350	Fabricating the box type items made from M.S. Sheet with A.I. supports, wings, doors, handles other hardware materials as per requirement design with finishing by three tank powder coating processed inside and outside painted, erected as directed including minor civil work.	Kg.	3-16-4-B	Refer Electrical Specification
351	Painting by cleaning, the surface and applying one coat of primer and two coats of enamel paint for meter cup-board or base plate suitable to match the wall finish	Smt	3-16-6	Refer Electrical Specification
352	Painting the number and words for inventory Identification on erected fittings/ equipment's or Such accessories as may required with good quality of enamelled paint as directed by engineer in charge. (i) up to 20 characters, up to 50 mm height.	EA	3-16-7	Refer Electrical Specification
353	(ii) Add. for additional character.	EA	3-16-7	Refer Electrical Specification
354	(iii) Add for additional each 25mm. height	EA	3-16-7	Refer Electrical Specification
355	CEILING FANS AND ACCESSORIS. Providing & erecting Approved make Power Saving 50 Watt Ceiling Fan with double ball bearing ISI mark with Condenser 230 volt A.C. 50 Hz 1200 mm sweep complete having 3blades with aluminium blades with, canopy & 30 cm. down rod erected with earthing. (Make shall be approved by Engineer in charge))	No	5-1-6.	Refer Electrical Specification
356	FAN ACCESSORIES. Supplying and erecting 19/ 20 mm. nominal bore Medium Class M.S. Pipe down rod erected duly painted for fan complete with necessary 24/ 0.2, 3 core flexible wire with earthing.	Mtr.	5-2-1.	Refer Electrical Specification
357	Supplying & erecting Fan Hook of 10 mm M.S. Roundbar grouted in RCC slab with Making the site as original.	No	5-2-2.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
358	Supplying & erecting fan hook box of 10 mm M.S. round bar bounded to the RCC bars up to 50mm length each side and pierced through a 16 Gauge M.S. box/ Heavy Duty PVC box complete erected concealed in Ceiling with necessary finishing..	No	5-2-3.	Refer Electrical Specification
359	Providing Fan clamp of 30 x 5 mm flat of required length & 10 mm M.S. Bolt & Nuts erected with necessary hook of 10 mm M.S. Round Bar.	No	5-2-4.	Refer Electrical Specification
360	Providing 2.5mm.thick laminated acrylic sheet to cover the fan hook or Fan box.	No	5-2-5.	Refer Electrical Specification
361	TABLE FANS, EXHAUST FANS & ACCESSORIES. Supplying & erecting approved make low noise decorative exhaust fan having size 200mm with 1350 RPM with square frame ABS body with inbuilt lowers & square frame.	No	5-3-3.	Refer Electrical Specification
362	Supplying & erecting single phase approved make industrial exhaust fan suitable for medium duty ring mounted low noise operation suitable for medium duty having following dia size and maximum speed in RPM [A] 305 mm dia 900 RPM Cat II	No	5-3-4.	Refer Electrical Specification
363	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/ CRCA polyester powder coated and high U.V. & corrosion resistance with diffuser and/ or Polycarbonate optics with company mark/ name 120 to 300 V, Power Factor more than 0.9, THD < 10 %, CCT 4000 K to 6500K, Uniformity ratio >0.7, Luminaire efficiency> 85 lumens/ watt, LED driver efficiency > 85 % CREE/ OSRAM/ PHILIPS Lumileds/ NICHIA/ SEOUL/ Bridgelux (U.S.A.) make LED used for luminaire. (Each fitting required LM-79 & LM-80 Certificates) (A) Tube Light with integral/ non-integral driver (d) 22-24 Watts, Surge - 2KV, IP-20, 4 feet Cat-III	No	2-15-1	Refer Electrical Specification

Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/	
364	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/ CRCA polyester powder coated and high U.V. & corrosion resistance with diffuser and/ or Polycarbonate optics with company mark/ name 120 to 300 V, Power Factor more than 0.9, THD < 10 %, CCT 4000 K to 6500K, Uniformity ratio >0.7, Luminaire efficiency > 85 lumens/ watt, LED driver efficiency > 85 % CREE/ OSRAM/ PHILIPS Lumileds/ NICHIA/ SEOUL/ Bridgelux (U.S.A.) make LED used for luminaire. (Each fitting required LM-79 & LM-80 Certificates) Square/ Circular Surface/ Recessed Mounted Downlight/ Hanging with provision for spring loaded mounting clips complete. (b) 11-15 watts, Surge-4 KV Cat III	No	2-15-3	Refer Electrical Specification
365	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/ CRCA polyester powder coated and high U.V. & corrosion resistance with diffuser and/ or Polycarbonate optics with company mark/ name 120 to 300 V, Power Factor more than 0.9, THD < 10 %, CCT 4000 K to 6500K, Uniformity ratio >0.7, Luminaire efficiency > 85 lumens/ watt, LED driver efficiency > 85 % CREE/ OSRAM/ PHILIPS Lumileds/ NICHIA/ SEOUL/ Bridgelux (U.S.A.) make LED used for luminaire. (Each fitting required LM-79 & LM-80 Certificates) (H) Mirror Light 9 Watts, wall mounted minimum 1 feet long Cat-III	No	2-15-3	Refer Electrical Specification
366	Providing and erecting HOT deep Galvanised iron strip wire 8 to 16 S.W.G.	Kg.	3-14-5	Refer Electrical Specification
367	Providing and erecting Pipe type earthing with 40 mm dia 2.5 Mtr. long 'B' grade G.I. pipe with necessary coupling buch buried in specially prepared earth pit & G.I. earth wire of 8 SWG erected & connected as directed (For panel)	EA	3-14-6-B	Refer Electrical Specification
368	For using salt and charcoal/ coke as required for pipe type earthing.	EA	3-14-6-c	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
369	Supplying & erecting funnel type earthing having earth plate of following size buried in specifically prepared earth pit 3 Mtr. below ground with 40 Kg. charcoal and salt with alternate layers of charcoal & salt, 20mm.dia. G.I. pipe with Funnel with a wire mesh for watering & bricks masonry block, C.I. Cover complete as per para 7.3 of IS 3043 with necessary length of double Galvanised Iron/ copper earth wire No 6 SWG bolted with lug to the plate and covered in 12 mm dia. G.I. pipe 2.5 Mtr. long complete connected to the nearest switch gear with end socket as per direction & duly tested by earth tester confirming to ISS (As per drawing)with following specification. (C) with 60 x 60x 0.315 cms. Copper earth Plate	No	3-14-12.	Refer Electrical Specification
370	GI STRIP Providing and erecting required size HOT deep Galvanised iron strip for earthing of H.T., OCB/ ACB/ Transformer LT panel board, Motors etc. using proper clamp.	Kg.	3-14-2.	Refer Electrical Specification
371	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.	Kg.	3-14-4.	Refer Electrical Specification
372	Providing & erecting water cooler having storage capacity 150 Ltr. & cooling capacity 150 Ltr.per hour @ an ambient temp of 45° C. The outlet temp. of the water should drop by 15°C within a hour, The water cooler should be comprising of hermetically sealed compressor, fan motor, condensing unit, water tank surrounded by evaporating, coil, thermostats, relay etc.complete with necessary inlet & outlet connection. The body of water cooler will be made from Stainless Steel.	EA	8-13-2.	Refer Electrical Specification
373	Supplying and erecting water filter cum purifier with ultra violate technology. (Aquaguard/ waterdoc model or equivalent symphony/ crystal/ videocon model)	EA	8-13-5.	Refer Electrical Specification
374	WATER HEATER Supplying and erecting horizontal/ vertical mounting type storage water heater with copper container housed in M.S./ S.S./ ABS body insulated with glass wool/ puff complete with heating elements, adjustable thermostats 300C to 850C, indicating lamp, safety valve, fusible plug, etc.complete erected with coach bolts, nuts. washers & cementation (A) 10 Ltr. with 3 KW. heating element	EA	8-16-2.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
375	Providing and fixing approved make Conical Poles (Standard) Made from CR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/ 4759. with required base plate as erected on existing foundation. The length of poles are as below. (D) 6 Mtr. Long 65mm Top X155 mm bottom dia, 3mm thickness.	EA	6-1-5.	Refer Electrical Specification
376	Providing M-20/ 1:2: 4 cement concrete foundation & 70 % PCC from bottom including excavation for the pole of size 45 x 45 x 100 cms. Deep in below ground level with plinth of 45 cms x 45 cms (or 45 cms dia x 45 cms) high upper ground level with necessary curing and finishing in approved manner. (for 4 & 6 Mtr. pole)	EA	6-3-4.	Refer Electrical Specification
377	STREET LIGHT BRACKETS. Providing street light pole bracket consisting of Light Class MS.pipe of 4.2 cms. outside dia. complete with suitable M.S. sleeve tubing of approximate 45 cms. and length suitable for 76.5 mm/ 80mm./ require size pole top having sufficient fastners for fixing the brackets and having spread of 1 Mtr. length with suitable rise as per site condition & suitable welded stiffener reducer and nipple with check nut complete painted with one coat of Red oxide/ PU base primer and two coats of Aluminium/ PU paint. paint with following No of arms. [A] Single Arm bracket 1 Mtr.	EA	6-5-3a.	Refer Electrical Specification

Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/	
378	<p>Supplying and erecting LED street light/ Flood light fittings with High power White LEDs wattage of 1Watt and above assembled on single MCPCB, efficiency more than 130 lm/ w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses with company mark/ name engraved or embossed 120 to 300 V, Power Factor more than 0.95, THD &lt; 10 %, CCT 3000 K to 5700K,</p> <p>Uniformity ratio &gt;0.45, Luminaire efficacy&gt; 100 lumens/ watt. LED driver efficiency &gt; 85 %.CREE/ OSRAM/ PHILIPS Lumileds/ NICHIA/ SEOUL/ BridgeLux (U.S.A.) make LED used for luminaire. (fittings required LM-79 &amp; LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)</p> <p>(B) Flood Light (IP-65), Surge -4KV, Light must have 440VAC line supply protection. It should withstand 48 hours for 440VAC line supply (v) above 120 to 160 watts</p>	EA	2-16-2.	Refer Electrical Specification
379	<p>Supplying and erecting LED street light/ Flood light fittings with High power White LEDs wattage of 1Watt and above assembled on single MCPCB, efficiency more than 130 lm/ w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses with company mark/ name engraved or embossed 120 to 300 V, Power Factor more than 0.95, THD &lt; 10 %, CCT 3000 K to 5700K,</p> <p>Uniformity ratio &gt;0.45, Luminaire efficacy&gt; 100 lumens/ watt. LED driver efficiency &gt; 85 %.CREE/ OSRAM/ PHILIPS Lumileds/ NICHIA/ SEOUL/ BridgeLux (U.S.A.) make LED used for luminaire. (fittings required LM-79 &amp; LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)</p> <p>(A) Street Light (IP-65), Surge protection -4KV integral and, Light must have 440VAC line supply with over-voltage protection.</p> <p>(i) above 36 to 48 watts CAT III</p>	EA	2-16-2.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
380	Providing & erecting open well horizontal mono block pump set with cast iron body, complete for three phase submersible motor having [D] For 5 HP 3 phase open well horizontal mono block pump set suitable for 1350 LPM to 310 LPM @ 10 to 42 Mtr. head suitable for 50/ 65 mm dia delivery pipe cat iii	EA	9-4-2.	Refer Electrical Specification
381	Supplying and erecting Direct On-line Electronics Starter with 2-5/ 4-10/ 8-14/ 10-16 Amp. Rating relay (variable current setting) directly operated in totally insulated elegant enclosure and 18 Amp. Rating power relay with start - stop button for single phase operation up to 3 HP as per complete erected on P.W. Block with following features. Low voltage cut off below 140 V High voltage cut off above 280 V Overload protection Indicating LEDs for motor on lv, hv & overload tripping. [Cat.II]	EA	9-1-2-A.	Refer Electrical Specification
382	Supply of Fibreglass Platform Step (A Type) Ladder - 18 FT having following specifications: It should have large fully serrated platform 15" wide 20" deep which locks ladder, Aluminium feet with thick rubber tread, top rail guard to serve as a railing, two pairs of gusset support at the bottom step and All gussets are heavy duty steel. Capacity: 300 lbs.	EA	1-7-12.	Refer Electrical Specification
383	Supplying of single phase submersible pump set suitable for 100 mm size or more dia bore well having motor capacity and discharge as under with necessary panel box (b) Motor rating 1.5 HP (16 stage) pump having capacity of 50 LPM at 60 Mtr. head suitable for 32 mm dia. delivery pipe Cat II	EA	9-6-1.	Refer Electrical Specification
384	Supplying and erecting Direct - On - Line Starter with 18 A. rating contactor and with 3.5 Amp. 18A range directly operated in totally insulated elegant enclosure for single phase operation up to 3 HP as per IS 13947 complete erected on P.W. Block with necessary connection. Cat III	EA	9-1-1.	Refer Electrical Specification
385	Providing & erecting approved make ATS panel suitable for following size of 3 phase, 415 V., 50 cycles, A.C. diesel generating set complete of scope as detailed below: 1) Power module: Motorised Changeover switch with ATS controller, Auxiliary contactor with NO & NC contacts with Automatic Battery Charger, indicating lamps for Generator ON, Mains ON, Load and suitable control terminals and power terminals with neutral earthing studs. (C) ATS Panel for 50/ 62.5 KVA 3 phase DG Set	Each	10-4-3	Refer Electrical Specification



Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
386	Supply, Installation, Testing and Comissioning of 4MP Fixed Lens Dome Type Camera, H.265 4MP IR Vandal Proof Dome N/ W Camera, 2.8mm/ 3.6mm, 30M IR, Micro SD, DC12V/ PoE, IP67/ IK10, Basic IVA, 1/ 2.7" CMOS, 2560 × 1440, 0.01 Lux, F1.2, AGC ON; Defog, True day/ night, Digital WDR, 3D DNR, HLC & BLC, Triple streams, Smart codec by ROI, Cyber Security, Basic intelligent video analytics, NDAA Compliance, UL, CE, FCC Certified (Including Five year free maintenance with guarantee)	EA	7-21-1.	Refer Electrical Specification
387	Supply, Installation, Testing and Comissioning of 4MP Fixed Lens Bullet Type Camera, H.265 4MP IR Bullet N/ W Camera, 3.6mm/ 6mm, 50M, Micro SD, DC12V/ PoE, IP67/ IK10, Basic IVA, 4MP resolution (2560 × 1440), True day/ night, Digital WDR, 3D DNR, HLC & BLC, Triple streams, Smart codec by ROI, Cyber Security Basic intelligent video analytics, NDAA Compliance, UL, CE, FCC Certified (Including Five year free maintenance with guarantee)	EA	7-21-2.	Refer Electrical Specification
388	Supply, Installation, Testing and Comissioning of 32 Channel Network Video Recorder (NVR), Support 8CH@2MP, H.264 Video Compression, HDMI, VGA output, up to 4 SATA interface each with max 6 TB support, bandwidth 200 mbps, CE FCC, BIS, Operating Temp -10 deg to 50 deg C, USB and serial Interface (Including Five year free maintenance with guarantee)	EA	7-21-14.	Refer Electrical Specification
389	Supply Installation Testing and commissioning of 8 PORT POE SWITCH with required all necessary accessories to complete the job.	No	Separate Sheet Attached	
390	Supply, installation, testing and commissioning of 9 U Rack including necessary power mounting and fan arrangements for mounting CCTV equipments	No	ELV SOR -PIU 2021-22	Refer Electrical Specification
391	SITC of 32 Inch 500 NTS Brightness professional Display with Direct-Type LED, Viewing Angle: 178 Degree Verti, 178 Degree Hor. Operation 27x7, Native Resolution 3840 x 2160 (16: 9) - UHD, 4 x USB (2 x 2.0, 1 x 2.0 internal, 1 x Type C), 0-40°C, ≤0.5 W, HTML 5 Browser Opera(4.9), Yes(internal) IEEE 802.11 a/ b/ g/ n Dual WiFi certificated, BIS, YES CLASS A 3dB margin. (Including Five year free maintenance with guarantee)	EA	Separate Sheet Attached	
392	Supply Installation Testing and commissioning of 10 kva 3 phase Servo stabilizer for Light operation.	No	Separate Sheet Attached	

Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/	
393	<p>Supplying and erecting, commissioning and testing of Diesel Generating set confirming to IS: 4722: 1968 &amp; BS: 5514 having continuous rating, 3 phase, 415 volts, 50 cycles A.C. supply comprising of a totally enclosed air/ water cooled diesel engine with multi-cylinders developing suitable BHP not less than following capacity at 1500 RPM with 10% overload for one hour in 24 hours with standard accessories like fly wheel, lubricating oil cooler, "A" class governor, heavy duty fuel wheel and lubricating oil filter, oil bath air filter, lubricating oil pressure gauge, end exhaust manifold, standard set of tools with adjustable spanners, screw drivers, cylinder head to cover, joint cylinder head to exhaust, element lube oil filter, 12/ 24 volts electric starting equipment complete with standard heavy duty battery, dynamo, cut-outs, ammeter, necessary wiring, pressure gauge, starter etc and heavy duty Residential type exhaust silencer and vertical hot air duct both logged with asbestos rope, save oil trays, exhaust piping of required length, standard wall/ floor mounted fuel with level indicator and piping and drip proof alternator, self excited, self regulated, screen protected, with excitation system, capable of delivering the rated system output at 415 volts, 3 phase, 0.8 PF</p> <p>Both the engine and alternator fitted on a common fabricated steel base plate with antivibration mounting engine and alternator both connected to each other by flexible flange coupling and with floor/ wall mounted control panel box comprising of voltmeter ammeter, selector switches, ACB/ MCCB/ MCB of adequate capacity, indicator lamps duly wired with HRC fuses. The alternator &amp; control panel shall be connected with provided suitable capacity armoured cable and complete with Acoustic enclosure (canopy) made out of 16 SWG CRCA Sheet, sound absorbing material Rockwool of 64 density &amp; 100 mm thick conforming to IS: 8183/ PU Foam of 40 Density - at least 40 mm. The resin bonded rockwool covered from inside the canopy by perforated sheet with 3/ 4 mm holes, sound level not more than 75 dB at a distance of 1 Mtr., as per PVCT norms. Erection, commissioning and satisfactory testing as per requirement with first filling of fuel, oil, etc. with guarantee/ Warrantee of complete system for Two years. &amp; with obtaining all necessary certificate from Electrical Inspector. The Capacity and Ratings of DG sets are as below.</p> <p>(I) Continuous Rating of 62.5 KVA, BHP not less than 76 BHP</p>	EA	10-4-2.	Refer Electrical Specification

Sr. No	Item Descriptionan	Unit	Item as Per General Technical Specification for Building Work/	
	<p>Supplying, Erecting, Testing &amp; Commissioning the passenger/ stretcher Machine room less lift having following main features: [1] GEAR LESS LIFT DRIVE comprising of High Starting torque Lift 3 phase 440 V A. C. Permanent Magnet Synchronous motor of proper rating with high efficiency shall be used.</p> <p>[2] Micro processor based/ PLC, ACVVVF, vector control drive with encoder feedback closed loop system shall be used for lift car and door operation which shall be full collective selective operation hall call demand response, UP/ DOWN hall stops, Main, Up/ Down Contactor with overload and phase reversal relay and safety controls.[3] Car with M S platform with bracings of adequate size and to sustain the impact load cabin + passenger with safety factor of fire for steel and side panels of Stainless steel of sheet of grade 304 duty. Car ceiling will be S.S. finishes with aesthetic appearance with LED ceiling lights. Car flooring shall be of anti skid PVC with choice of colour of engineer in charge. Car doors shall be of stainless steel grade 304, hairline finish with centre opening/ telescopic automatic doors. Car panel will also be S.S. 304 finished with emergency stop device, mechanical door safety device, facility of auto/ attended mode. All car panel buttons and all floor switches must be with brail language as per lift act.</p> <p>[4] All landing doors must be fire rated for 2 hour shall be fully automatic centre opening/ telescopic opening made of hairline finish steel grade of 304 with key holes and infrared curtains with Unlocking facility from outside</p> <p>[5] Appropriate battery operated emergency light in the car along with alarm switch shall be provided. Also, Emergency Light &amp; Fan should start immediately without any Time Delay as soon as power fails.</p> <p>[6] Digital scrolling indicator system for up-down arrow along with floor position indicator shall be provided inside the car and at all floors.</p> <p>[7] Full height infra red curtain with multiple cross/ crossing light beams shall be provided.</p> <p>[8] Automatic Rescue Device (ARD) shall be provided accordingly of passenger capacity with Manual Rescue Operation (Manual Cranking Facility).</p> <p>[9] Audio visual indication in the lift car showing over loading shall be provided such that doors kept open till excess load is removed.</p>			

Sr. No	Item Description	Unit	Item as Per General Technical Specification for Building Work/	
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	<p>[10] Spring buffers/ PU Buffers shall be provided.</p> <p>[11] Car fan as per passenger capacity with automatic sleep timer shall be provided.</p> <p>[12] Voice annunciator with suitable music shall be provided in lift car.</p> <p>[13] Self diagNotics system for operational and safety parameters shall be provided in control panel.</p> <p>[14] Mechanical over speed governor with governor calibration as per actual site parameters and submission of calibration certificate submission, door key holes in the floor doors, fireman switch shall be provided.</p> <p>[15] Lift machine hoisting arrangement in the lift machine room and monkey ladder for lift pit should be provided by the lift agency, along with the other steel structure works, foundations for the machine etc.</p> <p>[16] In the hoist way fascia plate shall be provided without any extra cost, where ever required as/ if directed by engineer in charge.</p> <p>[17] Permanent wiring with necessary safety devices like RCCB in all circuit, Over Voltage Under Voltage protection and THD eliminator in circuit for lift machine room and lift well with proper numbers of light points, with fixtures, exhaust fan and plug points shall be provided by the agency. Only 3 phase Power Supply shall be made available by department in lift machine room. Necessary Earthing as per Lift Act/ Rules shall be arranged by Lift Agency.</p> <p>[18] Any civil/ electrical works for additional and alteration in lift shaft and machine room related to erection of lift shall be made by lift agency without any extra cost. (granite/ marble fixing around all landing door openings are not in lift agency's scope.)</p> <p>[19] Agency has to provide all working drawings and documents and liaison services for obtaining all necessary permission from lift inspector and other authorities. [20] acrylic transparent licence/ display A4 size holder in lift car</p> <p>[21] Car Panel Operating Buttons with floor position</p>			