

TECHNICAL CONDITIONS OF CONTRACT (TCC)
CHAPTER IX-1672
BILL OF QUANTITY AND % WEIGHTAGES FOR ITEM RATES W.R.T TOTAL LUMP SUM PRICE

Tender Specification No		BHE/PW/PUR/WNT2-MESS-RENOV/1672		
Scope of Work: Renovation of Site Mess cum Recreation Hall at 1 x 800 MW WTPS Unit-8 Site,Wankabori, Distt.-Kheda (Gujarat)				
S.No	Item Description	Unit	Qty	% Weightage
1	CLEARING GRASS AND REMOVAL OF THE RUBBISH UPTO A DISTANCE OF 100 M OUTSIDE THE PERIPHERY OF THE AREA CLEARED ETC. AS PER SPECIFICATION AND AS DIRECTED BY THE ENGINEER.	M ²	200	0.0306779
2	REMOVAL OF WILD GROWTH, BUSHES VEGETATIONS AND DISPOSAL AS PER INSTRUCTION WITHIN THE PLANT BOUNDARY (SIZE OF STEM FROM 150MM TO 600MM DIA.)	NO.	10	0.12420204
3	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 1.5 M DEPTH IN ALL KINDS OF SOIL (EXCEPT SOFT ROCK AND HARD ROCK) FOR WHEREVER REQUIRED ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M ³	50	0.40163834
4	BACKFILLING OF GOOD EXCAVATED SOIL AVAILABLE AT SITE FOR WHEREVER REQUIRED IN REQUIRED THICKNESS (LAYERS NOT EXCEEDING 150MM THICK). INCLUDING WATERING AND CONSOLIDATING WITH 8-10 MT POWER ROLLER ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M ³	40	0.20816261
5	DISPOSAL OF EXCAVATED EARTH/ROCK (NOT SUITABLE FOR BACK FILLING) BEYOND INITIAL LEAD OF 50M AND UPTO A MAXIMUM LEAD OF 2 KM OR PART THEREOF INCLUDING LOADING, UNLOADING, TRANSPORTING AND SPREADING AS PER DIRECTION OF BHEL ENGINEER .	M ³	10	0.0583377
6	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:3:6 USING OPC GRADE 43/53, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY WITH TROWEL FINISH FOR WHEREVER REQUIRED ETC. INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M ³	17	4.62879256
7	PROVIDING AND LAYING OF RCC OF MIX 1:2:4 USING 40MM DOWN SIZE HARD BROKEN GRANITE STONE AGGREGATE FOR WHEREVER REQUIRED ETC INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK AND CENTERING AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER	M ³	10	3.20590298
8	TRANSPORT FROM STORE, STRAIGHTING, CUTTING,BENDING, PLACING IN POSITION AT ANY LEVEL , BINDING IN POSITION OF REINFORCEMENT OF TMT STEEL OF GRAD FE500/500D CONFIRMING RO IS1786 INCLUDING COST OF BINDING WIRE , LABOUR, SCAFFOLDING TRANSPORTATION FROM AND OR TO STORE ETC. ALL COMPLETE AS PER SPECIFICATION AND DRAWINGS OR EIC INSTRUCTIONS. (TMT STEEL WILL BE ISSUED BY BHEL FREE OF COST)	MT	2.5	0.98336963
9	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 WITH LOCALLY AVAILABLE FLY ASH BRICKS (MIN STRENGTH 35 KG/CM ²) AND SPECIFICATION FOR WHEREVER REQUIRED ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING, AT ALL ELEVATIONS AND LEVELS, RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER.	M ³	30	6.2625772
10	PROVIDING 2MM THICK NEAT CEMENT FINISH USING OPC GRADE 43/53 OVER CONCRETE BASE FOR FLOORING, PAVING, PLASTERED SURFACE & WHEREVER REQUIRED ETC. INCLUDING CURING & CLEANING AND SCAFFOLDING COMPLETE.	M ²	40	0.07725367
11	PROVIDING AND LAYING 100MM DIA STONWARE PIPELINE TO PROPER ALIGNMENT, LEVEL AND GRADE, JOINTING WITH CM (1:1) AND TESTING OF JOINTS ETC. OF THE FOLLOWING SIZE OF SALT GLAZED STONWARE PIPE INCLUSIVE OF ALL NECESSARY SPECIALS TARRER HEMP YARN AND ALL JOINTING MATERIALS COMPLETE AS PER STANDARD SPECIFICATIONS INCLUDING ALL NECESSARY EXCAVATION, BACKFILLING, DISPOSAL OF SURPLUS EARTH LEAD AND LIFT AS PER SITE CONDITIONS. RATE SHALL INCLUDE COST OF ALL MATERIALS, LABOUR CHARGES AND INCIDENTAL CHARGES ETC. COMPLETE.	RM	50	0.46606814
12	CONSTRUCTING BRICK MASONRY CHAMBER 50X45X60 CM WITH BRICKS IN CEMENT MORTAR 1:4 (1 CEMENT : 4 COARSE SAND) INCLUDING 500X450 MM PRE-CAST R.C.C. HORIZONTAL GRATING WITH FRAME COMPLETE AS PER STANDARD DESIGN WITH COMMON BURNT CLAY/FLY ASH BRICK F.P.S. (NON MODULAR) BRICKS OF CLASS DESIGNATION 7.5	NO.	2	0.3966392
13	PROVIDING INTERNAL/EXTERNAL PLASTERING -12MM THICK WITH CEMENT MORTAR -1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 OVER INTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES, PARTITION WALLS ETC. AT ALL LEVELS INCLUDING REMOVING OF THE LOOSED/BROKED PLASTER, PREPARING THE OLD SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.	M ²	400	2.34518286
14	PROVIDING CEILING PLASTERING -6MM THICK WITH CEMENT MORTAR -1:3 (1 CEMENT & 3 FINE SAND USING OPC GRADE 43/53 OVER BOTH INTERNAL AND EXTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES, PARTITION WALLS ETC. AT ALL LEVELS INCLUDING REMOVING OF THE LOOSED/BROKED PLASTER, PREPARING THE OLD SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.	M ²	50	0.31361014
15	DEMOLISHING/BREAKINGOF EXISTING BRICK WORK WITH CEMENT MORTER MANUALLY/ BY MECHANICAL MEANS INCLUDING PREPARATION OF OLD SURFACE AREA STACKING OF SERVICEABLE MATERIAL AND DISPOSAL OF UNSERVICEABLE MATERIAL WITHIN 50 METRES LEAD AS PER DIRECTION OF ENGINEER-IN-CHARGE	M ³	5	0.17593219
16	PROVIDING AND FIXING 24 MM THICK BEST QUALITY PVC DOORS OF SINTEX MAKE OR APPROVED EQUIVALENT FOR TOILETS INCLUDING ALL FITTINGS, FIXTURES, PREPARING THE SURFACE ETC. COMPLETE AS PER INSTRUCTION OF BHEL ENGINEER.	M ²	6	0.92074696
17	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ±1mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineer-in-charge. Extruded section profile size 48x40 mm	RM	15	0.17247005
18	PROVIDING & APPLYING TO INTERIOR SURFACES OF ROOM BY TWO COATS OF OBD OF APPROVED SHADE ,COLOR AND MAKE CONFIRMING TO LATEST IS CODE TO OBTAIN A EVEN FINISH AND UNIFORM COLOR OVER A COAT OF PRIMER AS PER MANUFACTURE RECOMMENDATION INCLUDING COST OF PAINT, REMOVING OLD PAINT OR SCRAPPING, SURFACE PREPARATION LIKE CLEANING AND BRUSHING & BROOMING OF WALLS, SCAFFOLDING AT ALL LEVEL ETC, COMPLETE. INCLUDING APPLY OF PUTTY, COST OF MATERIAL, LABOUR ETC. COMPLETE.	M ²	400.00	1.84315823
19	PROVIDING AND APPLYING TWO OR MORE COATS OF ACRYLIC EMULSION PAINTS AS PER IS5411 OF APPROVED BRAND, SHADE AND MANUFACTURES TO GIVE SMOOTH, HARD DURABLE & GLOSSY FINISH OVER A COAT OF PRIMER OVER PREPARED PLASTERED SURFACE AS PER MANUFACTURES GUIDELINES AND AS PER INSTRUCTION BY EIC	M ²	550.00	4.06451166
20	APPLYING TO DOORS AND WINDOWS BY TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED SHADE & COLOR OVER A COAT OF PRIMER AS DIRECTED BY BHEL ENGINEER.	M ²	210.00	1.02764765
21	PROVIDING & APPLYING WHITE WASH -TWO COATS ON OLD PLASTERED EXTERNAL SURFACE BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING COST OF PAINT, REMOVING OLD PAINT, SURFACE PREPARATION LIKE CLEANING AND BRUSHING & BROOMING OF WALLS, SCAFFOLDING AT ALL LEVEL ETC, COMPLETE. INCLUDING COST OF MATERIAL, LABOUR ETC. COMPLETE.	M ²	250.00	0.22589245

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Scope of Work: Renovation of Site Mess cum Recreation Hall at 1 x 800 MW WTPS Unit-8 Site,Wankabori, Distt.-Kheda (Gujarat)				
S.No	Item Description	Unit	Qty	% Weightage
22	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require : White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	NO.	5.00	0.57392209
23	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid	NO.	2.00	0.52423196
24	Providing and fixing water closet squatting pan (Indian type W.C.pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :	NO.	2.00	0.36814726
25	SUPPLYING AND FIXING IN POSITION OF HIGH CLASS BELGIUM OR SUPERIOR MAKE BEVELLED EDGE MIRROR OF SIZE 453MM X 357MM X 6MM MOUNTED ON 6MM THICK PLYWOOD OR PLASTIC FOLDER SHEET. RATE TO INCLUDE COST OF ALL MATERIALS, LABOUR FOR FIXING THE WOODEN PLUGS WITH CP BRASS SCREWS AND WASHERS ETC. ALL COMPLETE AS PER SPECIFICATIONS AND INSTRUCTION OF BHEL ENGINEER.	NO.	5.00	0.1857752
26	PROVIDING AND LAYING OF CERAMIC TILES (THICKNESS TO BE SPECIFIED BY THE MANUFACTURER) FOR FLOORING -300MM X300MM LAID OVER THE 20 THICK BED OF CM - 1:4 (1 CEMENT & 4 COARSE SAND) USING OPC GRADE 43/53.TILES FROM REPUTED MANUFACTURER INCLUDING GROUTING THE JOINTS WITH WHITE CEMENT AND MATCHING PIGMENTS. ALL MATERIALS, DISPOSAL OF DEBRIS TILES. COMPLETE AS PER BHEL ENGINEER.	M ²	170.00	8.28579733
27	PROVIDING AND LAYING OF CERAMIC TILES (THICKNESS TO BE SPECIFIED BY THE MANUFACTURER) FOR WALL AND DADO- 300MM X 150MM LAID OVER THE BED OF CM - 1:4 (1 CEMENT & 4 COARSE SAND) USING OPC GRADE 43/53.TILES FROM REPUTED MANUFACTURER INCLUDING ALL MATERIALS, DISPOSAL OF DEBRIS TILES, COMPLETE AS PER BHEL ENGINEER.	M ²	45.00	2.19329929
28	SUPPLYING & FIXING 15 MM DIA. GI PIPES INCLUDING REMOVAL OF DEBRIS, ALL FITTINGS LIKE ELBOWS, TEES, UNIONS, FINISHING THE DAMAGED SURFACE TO GOOD CONDITION ETC.	RM	22.00	0.22078154
29	SUPPLYING & FIXING 20MM DIA. GI PIPES INCLUDING REMOVAL OF DEBRIS, ALL FITTINGS LIKE ELBOWS, TEES, UNIONS, FINISHING THE DAMAGED SURFACE TO GOOD CONDITION ETC.	RM	30.00	0.3503429
30	SUPPLYING & FIXING 50MM DIA. GI PIPES INCLUDING REMOVAL OF DEBRIS, ALL FITTINGS LIKE ELBOWS, TEES, UNIONS, FINISHING THE DAMAGED SURFACE TO GOOD CONDITION ETC.	RM	24.00	0.67613105
31	PROVIDING AND FIXING IN POSITION OF 100MM X 100MM HCI "NAHANI" TRAP WITH HCI GRATINGS, BENDS, CONNECTING PIECES OF CI PIPE UPTO OUTSIDE FACE OF THE WALL. MAKING GOOD THE DAMAGED SURFACE, TESTING ETC COMPLETE AS PER STANDARD SPECIFICATIONS. RATE TO BE ALL INCLUSIVES.	NO.	2	0.0124202
32	PROVIDING AND FIXING IN POSITION OF 15 MM DIA NOMINAL SIZE SCREW DOWN TYPE CHROMIUM PLATES BRASS BIB COCKS OF STANDARD TYPE OF APPROVED MAKE AND QUALITY (LEADER MAKE OR EQUIVALENT) AS PER STANDARD SPECIFICATION. RATE INCLUDES JOINTING MATERIALS, SOCKETS, UNION NUT, TESTING, LABOURS FOR CARRYING AND FIXING ETC. COMPLETE.	NO.	10.00	0.12767969
33	PROVIDING AND FIXING IN POSITION OF 15 MM DIA NOMINAL SIZE SCREW DOWN TYPE CHROMIUM PLATES BRASS STOP COCKS OF APPROVED MAKE AND QUALITY (LEADER MAKE OR EQUIVALENT) AS PER STANDARD SPECIFICATION. RATE INCLUDES COST OF JOINTING MATERIALS, SOCKETS, UNION NUT, TESTING, LABOURS FOR CARRYING AND FIXING ETC. COMPLETE	NO.	8.00	0.10214376
34	SUPPLYING AND FIXING IN POSITION OF SHOWER WITH WATER LINE RATE TO INCLUDE COST OF JOINTING MATERIALS, LABOUR FOR CARRYING AND FIXING ETC. COMPLETE.	NO.	2	0.01400378
35	PROVIDING AND FIXING CURTAIN RODS 25MM DIA OF 1.25 MM THICK CHROMIUM PLATED BRASS PLATE, WITH TWO CHROMIUM PLATED BRASS BRACKETS FIXED WITH C.P. BRASS SCREWS AND WOODEN PLUGS.	RM	15	0.3887679
36	PROVIDING AND FIXING PTMT TOWEL RING TRAPEZOIDAL SHAPE 215 MM LONG, 200 MM WIDE WITH MINIMUM DISTANCES OF 37 MM FROM WALL FACE WITH CONCEALED FITTINGS ARRANGEMENT OF APPROVED QUALITY AND COLOUR, WEIGHING NOT LESS THAN 88 GMS INCLUDING COST OF MATERIAL, LABOUR ETC. COMPLETE. PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.	No.	5	0.05273929
37	PROVIDING AND FIXING PTMT LIQUID SOAP CONTAINER 109 MM WIDE, 125 MM HIGH AND 112 MM DISTANCE FROM WALL OF STANDARD SHAPE WITH BRACKET OF THE SAME MATERIALS WITH SNAP FITTINGS OF APPROVED QUALITY AND COLOUR, WEIGHING NOT LESS THAN 105 GMS. INCLUDING COST OF MATERIAL, LABOUR ETC. COMPLETE. PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE	No.	5	0.05592197
38	PROVIDING AND FIXING PTMT SOAP DISH HOLDER HAVING LENGTH OF 138MM, BREADTH 102MM, HEIGHT OF 75MM WITH CONCEALED FITTING ARRANGEMENTS, WEIGHING NOT LESS THAN 106 GMS	No.	5	0.04691732
39	PROVIDING AND FIXING 18 MM THICK GRANITE WORK MIRROR POLISHED, PREMOULDED AND PREPOLISHED, MACHINE CUT FOR KITCHEN PLATFORMS AND AS PER REQUIREMENT OF REQUIRED SIZE, APPROVED SHADE, COLOUR AND TEXTURE LAID OVER 20 MM THICK BASE CEMENT MORTAR 1:4 (1 CEMENT : 4 COARSE SAND), JOINTS TREATED WITH WHITE CEMENT, MIXED WITH MATCHING PIGMENT, EPOXY TOUCH UPS, INCLUDING RUBBING, CURING, MOULDING AND POLISHING TO EDGES TO GIVE HIGH GLOSS FINISH ETC. COMPLETE AT ALL LEVELS. PRIOR APPROVAL OF SAMPLE BY BHEL ENGINEER IS NECESSARY BEFORE USE.	M ²	6	1.14889368
40	PROVIDING AND FIXING 610x510x200 MM size conforming to IS 13983, STAINLESS STEEL KITCHEN SINK including all fittings etc. all complete	NO.	1	0.25573199
41	PROVIDING AND FIXING ORDINARY TUBELIGHT WITH FRAME OF STANDARD MANUFACTURER LIKE PHILIPS/BAJAJ OR EQUIVALENT AS APPROVED BY BHEL. THIS INCLUDES TUBE LIGHT FITTINGS, ALL NECESSARY ELECTRICAL FITTINGS (STARTER AND CHOCK ETC) ETC. COMPLETE.	PER POINT	10	0.25150912
42	POVIDING AND INSTALLATION OF PLUG POINT OF 5A SOCKET (ANCHOR OR EQUIV.) OUTLET FOR WHRERVER REQUIRED AS PER INSTRUCTED BY BHEL ENGINEER INCLUDING WIRING TERMINATION.	PER POINT	10	0.33596651
43	POVIDING AND INSTALLATION OF PLUG POINT OF 15A SOCKET (ANCHOR OR EQUIV.) OUTLET FOR WHRERVER REQUIRED AS PER INSTRUCTED BY BHEL ENGINEER INCLUDING WIRING TERMINATION.	PER POINT	8	0.19027752
44	PROVIDING AND INSTALLING WIRING USING 2.5 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES .WIRING SHALL BE CONCEALED TYPE FOR WHRERVER REQUIRED AS PER INSTRUCTED BY BHEL ENGINEER IN PVC CONDUIT OF REQUIRED SIZE.THE MAKE OF THE WIRE SHALL BE ONLY FROM KEI / POLY CAP/ HAVELLS/ FINOLEX/L&T.	PER POINT	40	1.9027752
45	PROVIDING AND INSTALLING WIRING USING 4 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES .WIRING SHALL BE CONCEALED TYPE FOR WHRERVER REQUIRED AS PER INSTRUCTED BY BHEL ENGINEER IN PVC CONDUIT OF REQUIRED SIZE.THE MAKE OF THE WIRE SHALL BE ONLY FROM KEI / POLY CAP/ HAVELLS/ FINOLEX/L&T.	PER POINT	10	0.72720293
46	PROVIDING AND FIXING 63 AMP CAPACITY TP &N DISCONNECTOR FUSE SWITCH UNIT INSIDE THE PANEL BOARD WITH ISI MARKED HRC FUSES INCLUDING DRILLING HOLES IN CUBICLE PANEL, MAKING CONNECTION, ETC, AS REQUIRED.	NO.	7	0.83855005
47	PROVIDING AND FIXING EXHAUST FANS 12" DIAMETER WITH FRAME OF STANDARD MANUFACTURER LIKE HAVELLS, CROMPTAN GREEVES OR EQUIVALENT AS APPROVED BY BHEL.	NO.	6	0.33571811

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S.No	Item Description	Unit	Qty	% Weightage
48	PROVIDING AND LAYING FOUR COURSES WATER PROOFING TREATMENT WITH BITUMEN FELT OVER ROOFS CONSISTING OF FIRST AND THIRD COURSES OF BLOWN BITUMEN 85/25 OR 90/15 CONFORMING TO IS : 702 APPLIED HOT @ 1.45 KG PER SQUARE METRE OF AREA FOR EACH COURSE, SECOND COURSE OF ROOFING FELT TYPE 3 GRADE-I (HESSIAN BASED SELF FINISHED BITUMEN FELT) AND FOURTH AND FINAL COURSE OF STONE GRIT 6 MM AND DOWN SIZE OR PEASIZED GRAVEL SPREAD AT 6 CUBIC DIAMETER PER SQUARE METRE INCLUDING PREPARATION OF SURFACE BUT EXCLUDING GRADING COMPLETE WITH : 22.8.1 BITUMEN FELT (HESSIAN BASE) TYPE 3 GRADE I CONFORMING TO IS : 1322	M ²	180	2.93706767
49	PROVIDING & FIXING 12MM THICK GYPSUM BOARD PLAN/PERFORATED FALSE CEILING (600X600 MM) OF INDIAN GYPSUM OR EQUIVALENT MAKE IN PLAN OR ELEVATION WITH AL GRID, MATEL SUSPENSION SYSTEM, ANCHOR, FASTENER ADJUSTABLE HANGERS, ETC. INCLUDING TWO OR MORE COATS OF ACRYLIC EMULSION PAINTS OF APPROVED COPLOR TO GIVE AN EVEN SHAD WITH SMOOTH FINISH ALL COMPLETE AS PER ARCHITECTHTRAL DESIGN AND DETAIL. METAL SUSPENSION SYSTEM AS PER ASTM C-635 SHALL BE HOT DIPPED M.S GALVANIZED (GRADE 180 AS PER IS:277) NOMINAL SIZE OF T-SECTION SHALL BE 24X38MM OR 24X25 MM CROSS RUNNERS.24MM WIDE EXPOSED FLANGE SURFACE SHALL BE PERMANENTLY COLOR COATED.SUSPENSION SYSTEM SHALL BE AS PER MANUFACTURER'S SPECIFICATION SUPPORTED OVER MOVEMENT PLATFORM.THE WORK TO BE COMPLETE AS PER SPECIFICATION ,DRAWINGS,AND DIRECTION OF ENGINEER.(MATERIAL FOR STRUCTURAL PLATFORM GRID FOR MOVEMENT MADE UP OF MS CHANNELS/BEAMS/ANGLES SHALL BE SUPPLIED BY BHEL AND SHALL BE PAID UNDER ST NO 2301)	M ²	145	9.33781964
50	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	M ²	145	0.1431739
51	PROVIDING AND FIXING 1.00 MM THICK WITH ZINC COATING not less than 275 gm/m ² CORRUGATED G.S. SHEET ROOFING INCLUDING VERTICAL / CURVED SURFACE FIXED WITH POLYMER COATED J OR L HOOKS, BOLTS AND NUTS 8 MM DIAMETER WITH BITUMEN AND G.I LIMPET WASHERS OR WITH G.I LIMPET WASHERS FILLED WITH WHITE LEAD, INCLUDING A COAT OF APPROVED STEEL PRIMER AND TWO COATS OF APPROVED PAINT ON OVERLAPPING OF SHEETS COMPLETE (UP TO ANY PITCH IN HORIZONTAL/ VERTICAL OR CURVED SURFACES), INCLUDING CUTTING TO SIZE AND SHAPE WHEREVER REQUIRE.	M ²	30	1.63657919
52	PROVIDING AND FIXING HYDRAULIC DOOR CLOSER (HEAVY DUTY,(having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm.)) OF APPROVED BRAND AND AS DIRECTED BY BHEL ENGINEER.	NO.	4	0.16464222
53	PROVIDING AND FIXING OF INDUSTRIAL RO 25-100 LITRE CAPACITY WATER PURIFIER (RO+UV) MAKE KENT OR EQUIVALENT, ALONG WITH ALL FITTINGS AND AS DIRECTED BY BHEL ENGINEER.	NO.	1	1.19556881
54	PROVIDING AND FIXING 12 MM THICK PRELAMINATED PARTICLE BOARD WITH DECORATIVE LAMINATION ON BOTH SIDES FLAT PRESSED THREE LAYER OR GRADED WOOD PARTICLE BOARD CONFORMING TO IS: 12823 GRADE L TYPE LL, IN PANELLING FIXED IN ALUMINIUM DOORS, WINDOWS SHUTTERS AND PARTITION FRAMES WITH C.P. BRASS / STAINLESS STEEL SCREWS ETC. COMPLETE AS PER DIRECTIONS OF ENGINEER-IN-CHARGE.	M ²	14	0.81151127
55	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 4.0 mm thickness	M ²	7	0.31531482
56	PROVIDING & FIXING 4MM THICK GLASS PANES WITH PUTTY AND GLAZING CLIPS IN STEEL DOORS, WINDOWS, CLERESTORY WINDOWS, ALL COMPLETE	M ²	75	3.06352087
57	RAKING OUT JOINTS OF STONE MASONRY SURFACE TO THE REQUIRED WIDTH AND DEPTH, WITH DUE CARE AND PRECAUTION, BY MECHANICAL / MANUAL MEANS, INCLUDING PREPARING AND CLEANING THE SURFACE FOR RE-POINTING/ REFILLING OF JOINTS, INCLUDING DISPOSAL OF RUBBISH TO THE DUMPING GROUND WITHIN 50 METRE LEAD.	M ²	160	0.19723283
58	PROVIDING AND APPLYING ANTIFUNGAL WASH TREATMENT USING 3% SOLUTION OF SODIUM PENTACHLOROPHENATE, OF REPUTED BRAND AND MANUFACTURER, ON CLEANED SAND STONE SURFACE AT DESIRED LOCATIONS AS PER DIRECTION OF ENGINEER-IN-CHARGE (THE RATE IS INCLUSIVE OF ALL MATERIALS & LABOURS INVOLVED EXCEPT SCAFFOLDING).	M ²	160	0.26628917
59	DISMANTLING OF OLD S.W. PIPES INCLUDING BREAKING OF JOINTS AND BED CONCRETE STACKING OF USEFUL MATERIALS NEAR THE SITE WITHIN 50 M LEAD AND DISPOSAL OF UNSERVICEABLE MATERIALS INTO MUNICIPAL DUMPS	RM	100	0.15152648
60	PROVIDING AND FIXING APP (ATACTIC POLYPROPYLENE POLYMER) MODIFIED PREFABRICATED FIVE LAYER 2 MM THICK WATER PROOFING MEMBRANCE, BLACK FINISHED REINFORCED WITH GLASS FIBRE MATT CONSISTING OF A COAT OF BITUMEN PRIMER FOR BITUMEN MEMBRANE @ 0.40 LITRE/SQM BY THE SAME MEMBRANCE MANUFACTURE OF DENSITY AT 25°C, 0.87 - 0.89 KG/ LITRE AND VISCOCITY 70 - 160 CPS. OVER THE PRIMER COAT THE LAYER OF MEMBRANE SHALL BE LAID USING BUTANE TORCH AND SEALING ALL JOINTS ETC., AND PREPARING THE SURFACE COMPLETE. THE VITAL PHYSICAL AND CHEMICAL PARAMETERS OF THE MEMBRANE SHALL BE AS UNDER: JOINT STRENGTH IN LONGITUDINAL AND TRANSVERSE DIRECTION AT 23°C AS 350/300 N/ 5 CM. TEAR STRENGTH IN LONGITUDINAL AND TRANSVERSE DIRECTION AS 60/80N. SOFTENING POINT OF MEMBRANE NOT LESS THAN 150°C. COLD FLEXIBILITY SHALL BE UPTO -2°C WHEN TESTED IN ACCORDANCE WITH ASTM, D - 5147. THE LAYING OF MEMBRANE SHALL BE GOT DONE THROUGH THE AUTHORISED APPLICATOR OF THE MANUFACTURE OF MEMBRANE.	M ²	250	5.01698603
61	PROVIDING AND LAYING 60MM THICK FACTORY MADE CEMENT CONCRETE INTERLOCKING PAVER BLOCK OF M -30 GRADE MADE BY BLOCK MAKING MACHINE WITH STRONG VIBRATORY COMPACTION, OF APPROVED SIZE, DESIGN & SHAPE, LAID IN REQUIRED COLOUR AND PATTERN OVER AND INCLUDING 50MM THICK COMPACTED BED OF COARSE SAND, FILLING THE JOINTS WITH FINE SAND ETC. ALL COMPLETE AS PER THE DIRECTION OF ENGINEER-IN-CHARGE.	M ²	150	4.99897673
62	SUPPLYING AND ERECTING IN POSITION 2.4 M HIGH GAVANISED CHAIN LINKED FENCING CONFORMING TO IS 2761 OF 4 MM GALVANISED STEEL WIRES WOVEN IN THE FORM OF ZIG-ZAG MESH GIVING AN OPENING SIZE OF 50 MM SQUARE. COST TO INCLUDE FOR GI HOOK BOLTS, RINGS & WASHERS, HOT DIP GALVANISED TENSION WIRES, 25X6 MM GI FLAT STRETCHER BAR AT END POSTS, ACCESSORIES ETC. ALL COMPLETE RATE QUOTED SHALL BE INCLUSIVE OF EXCAVATION, DISPOSAL OF SURPLUS EARTH, CONCRETE (1:3:6), FORM WORK AND ALL MATERIALS, COST OF POSTS, CHAIN LINK, TRANSPORTING, FIXING IN POSITION ETC. INCLUDING COST OF ALL LABOUR	RM	40	4.47127333
63	SUPPLY AND INSTALLATION OF 150 LITRE CAPACITY WATER COOLER OF VOLTAS/LG OR EQUIVALENT AS APPROVED BY BHEL	No.	2	4.7133431
64	PROVIDING AND FIXING IN POSITION OF PVC OVERHEAD WATER TANK OF SYNTAX OR ANY APPROVED MAKE OF 5000 CAPACITY WITH PROVISION FOR OVERFLOW ARRANGEMENT VALVES/BALL FLOAT VALVE, SUITABLE LOCKING ARRANGEMENT AND MAKING NECESSARY HOLES FOR INLET AND OUTLET ETC. COMPLETE. SUPPORTING STEEL STRUCTURE FOR FIXING THE TANK SHELL BE PAID IN THE RELEVANT ITEM.	No.	3	5.68224319
65	FABRICATION AND ERECTION OF SUPPORTING STEEL STRUCTURE FOR FIXING OF PVC OVERHEAD WATER TANK, RATE QUOTED SHALL BE INCLUSIVE OF EXCAVATION, DISPOSAL OF SURPLUS EARTH, CONCRETE (1:3:6), FORM WORK AND ALL MATERIALS, COST OF POSTS, TRANSPORTING, FIXING IN POSITION ETC. INCLUDING COST OF ALL LABOUR AND TWO COATS OF ENAMEL PAINT OF APPROVED SHADE WITH A SHOP COAT OF PRIMER IN ALL STRUCTURAL MEMBERS ETC COMPLETE. (STEEL WILL BE ISSUED BY BHEL FROM STORE FREE OF COST BASIS)	MT	3.5	5.60772196
66	PROVIDING AND FIXING CEILING FAN 48" DIAMETER OF APPROVED COMPANY SUCH AS CROMFAN GREEVES OR ANY OTHER STANDARD MANUFACTURER AS DIRECTED BY BHEL.	No.	10	1.11906035
67	PROVIDING AND FIXING CALLING BELLS WITH INDICATOR LIGHT OF STANDARD MANUFACTURER OR EQUIVALENT AS APPROVED BY BHEL INCLUDING ALL FITTINGS .	No.	3	0.07172668
TOTAL				100%