

BHEL PS WR
TS : BHE/PW/PUR/BINA-CVL/477
PRICE BID, PART-II, VOLUME-III

SCHEDULE OF QUANTITIES FOR CIVIL, STRUCTURAL & ARCHITECTURAL WORK

AT 3X33MW CCPP, BORL - BINA PROJECT

SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
1.0	EXCAVATION					
1.1	Earthwork in excavation in all kinds of ordinary and hard soil (including slushy soil) up to a depth of 2.0 m below ground level and stacking within a lead of 100 m, with necessary shoring, strutting, trimming and dressing of sides etc., including bailing / pumping out of surface water/rain water/sub soil water, cutting minor vegetation, if any, complete as per drawings and specification.					
a)	All kinds of soil (Ordinary and hard soil)	CU. M.	51,000			
b)	Same as item 1.1 above, but for soft rock upto 2.0m below GL requiring chieseling	CU. M.	16,000			
c)	Same as item 1.1 above, but for hard rock / sheet rock requiring blasting upto 2.0m below GL	CU. M.	18,600			
1.2	Same as Item no-1.1 above but from 2.0 m - 4.0 m depth					
a)	All kinds of soil (Ordinary and hard soil) from 2.0m to 4.0m below GL	CU. M.	11,000			
b)	Same as item 1.1 above, but for soft rock from 2.0m to 4.0m below GL requiring chieseling	CU. M.	7,100			
c)	Same as item no:-1.1 above, but for hard rock / sheet rock requiring blasting upto 2.0m to 4.0m below GL	CU. M.	20,000			
1.3	Extra over item no:- 1.1 for every additional lead of 100 m or part there of (beyond the initial lead of 100m as per item 1.1) and stacking within the compound wall.	CU. M.	5,000			
1.4	Extra over item no:- 1.2 for every additional lift of 1.0 m or part there of	CU. M.	5,000			
2.0	BACKFILLING					
2.1	Earthwork in backfilling & compacting in layers not exceeding 200 mm around foundations, trenches , below grade slabs and all other locations , as per specs, drawings and as directed by the Engineer.					
a)	With earth obtained from stacks within a lead of 100m	CU. M.	50,000			
b)	Extra over 2.1(a) for every additional lead of 100m or part there of within battery limit	CU. M.	5,000			

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c)	With selected earth (cohesive non-swelling / murram) obtained from borrow pits outside the battery limit within a lead of 5.0 Km inclusive of necessary royalty charges.	CU. M.	6,636			
d)	Extra over 2.1 (c) for every additional lead of 1 Km or part thereof	CU. M.	2,600			
2.2	Supplying and filling river sand in layers not exceeding 150mm including compacting by mechanical means, flooding with water etc all complete as per specification and as directed by the Engineer.	CU. M.	1,200			
2.3 a)	a) Removal of surplus earth & debris beyond battery limit upto 5 Km lead including transportatin, loading and unloading , dumping, stacking, levelling and dressing etc.complete as per specifications and drawings.	CU. M.	70,000			
b)	Extra over 2.2a for every additional lead of 1Km or part thereof	CU. M.	5,000			
2.4 a)	Site grading and levelling with filling excavated earth obtained from foundations in layers not exceeding 250 mm within the project area using mechanical / manual means breaking clods, cutting heaps, compacting using compaction equipment in non-accessible areas and rolling with road roller in open areas to obtain 95% of proctor density for cohesive soils and 85 % for non-cohesive soils, all complete as drgs and spcns.	CU. M.	5,000			
3.0	CONCRETE					
3.1	Supplying, laying in position, compacting and curing as per specification Plain cement concrete (using OPC/PSC/PPC/SRC) of the following mix with 20mm down size aggregates below GL and upto 1.0M above GL , including consolidation of subgrade wherever required.					
a)	1:5:10	CU. M.	1,500			
b)	1:4:8	CU. M.	3,950			
c)	1:3:6 with cement content of 225 kg / m3 of concrete	CU. M.	1,150			
d)	1:2:4 (with 20 mm and down sized aggregate)	CU. M.	500			
3.2	Supplying, laying in position, curing as per specifications Controlled concrete (using OPC/PSC/PPC/SRC) of the following grades(graded coarse aggregates of 40mm down, 20mm down 12mm down shall be used wherever applicable)					

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				IN FIGURES	IN WORDS	
a)	for all depths below GL and 1.0 m above GL					
i)	Grade M-20 in foundations, floors and pavings etc. with 350 kg/m ³ cement	CU. M.	1,500			
ii)	Grade M-25 in foundations, slabs, columns, floors, beams.etc.with minimum cement content of 375 kg/m ³	CU. M.	27,280			
b)	for all elevations 1m above G.L.					
i)	Grade M-25 with minimum cement content of 375 kg/m ³	CU. M.	12,830			
ii)	Grade M-25 for with minimum cement content of 375 kg/m ³ of concrete for STG top deck/columns above raft at all levels including addition of suitable plastisizers conforming to IS 9103 to achieve required strength in concrete as per manufacturers recommendations,, preparation of scheme for concreting, getting it approved by engineer.	CU. M.	2,250			
iii)	Grade M-30 with minimum cement content of 375 kg/m ³	CUM	600			
(iv)	Providing, arranging , transportation and mixing of ICE for controlling the temperature of STG Deck green concrete, maintinting the temperature of green concrete at pouring point equal to & below 25 Degree Centigrade including mixing, transportation, material cost, labour cost, handling cost etc complete.	CUM	600			
(v)	Conducting Non - destructive Ultrasonic pulse velocity test as per specifications to find out the soundness of concrete by approved vendor including all equipments, tools, plants, scaffolding required for testing, preparation of test report etc. complete as directed by Engineer for all three STG Deck foundations/columns. Bidders are requested to coat lump sum price for all tree decks/columns	Lump Sump				
3.3	Providing and placing in position RCC of grade M25 (using OPC/PSC/PPC/SRC) of 12mm & down graded chips with min. cement content of 350 kg/m ³ for encasing of steel structures at all elevations as per drawings, specifications , all complete.	CU.M	500			
3.4 a)	Providing and placing in position, compating , curing Reinforced concrete for paving of M20 grade with min. cement content of 350 kg/m ³ (using OPC/PPC/PSC/SRC) including laying in approved size panels, leaving grooves for sealing joints, cost of form work, finishing of top surface as required but excluding cost of reinforcement which will be paid under relevant items, etc.all complete for floors and pavement as per EIL drawing No- 7-75-0404 and specifications.	CU.M	3,000			

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				IN FIGURES	IN WORDS	
3.4 b)	Providing and placing in position, compating , curing Reinforced concrete for paving of M25 grade with min. cement content of 375 kg/m ³ (using OPC/PPC/PSC/SRC) including laying in approved size panels, leaving grooves for sealing joints, cost of form work, finishing of top surface as required but excluding cost of reinforcement which will be paid under relevant items, etc.all complete for floors and pavement as per drawing and specifications.	CU.M	1,500			
3.5a)	Supplying and mixing 'SIKA' or approved equivalent brand of integral water proofing compound in cement concrete / cement mortar etc. all complete as per drawings and specifications.	Kgs	700			
b)	Providing and Fixing in position 12mm thick 'shalitex' or approved equivalent fibre board in expansion joints etc all complete as per specifications and drawings.	SQ. M.	300			
3.6	Providing and Fixing in position 25mm thick 'shalitex' or approved equivalent fibre board in expansion joints etc all complete as per specifications and drawings.	SQ. M.	600			
3.7	Supplying and laying sealing compound with premium grade Silicon sealant (SILPRUF of GE Silicon or approved equivalent) conforming to IS:1834 as per specification.					
	a) 20mm wide,25mm deep	R.M.	1,840			
	b) 10mm wide,40mm deep	R.M.	4,200			
3.8	Fabricating and placing in position precast reinforced concrete trench covers of grade M25 (using OPC/PPC/PSC/SRC) of varying thickness including reinforcement, shuttering, lifting lugs etc., all complete including edge angles as per drawing and specifications. Reinforcement will be paid under item 5.1 (b) and edge angles will be paid for under item 6.1(d)	CU. M	1,000			
3.9 (a)	Supplying and installing ribbed PVC water stops 6mm thick and 150mm wide in cement concrete including laps by fixing / valcanizing joints and folds as applicable and approved by the Engineer.	RM	10,000			
3.9 (b)	Supplying and installing ribbed PVC water stops 6mm thick and 225mm wide in cement concrete including laps by fixing / valcanizing joints and folds as applicable and approved by the Engineer.	RM	500			
3.10	Grouting under equipment bases as required,curing and finishing the exposed surfaces including all materials like cement, conbextra GP1/GP2, aggregates, form work etc. as per drawings and directions of the Engineer.					
a)	With 1:1:2 cement sand and 6mm down stone chips nominal mix by volume	CU. M.	7			

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SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
b)	Same as item 3.11 (a) but using non shring grout like conbextra GP1 or approved equivalent, including cost of grout mix, form work, finishing , curing etc. , all complete as per drawings and manufacturers' specifications.	CU. M.	20			
c)	Same as item 3.10 (a) but using non shring grout like conbextra GP2 or approved equivalent, including cost of grout mix etc. , all complete as per drawings and manufacturers' specifications.	CU. M.	5			
4.0	FORM WORK					
4.1	Supplying, installing, dismantling and removing the following classes 'of formwork as per drawings and specifications at all levels using steel / plywood wood shuttering.					
a)	Straight in plan (including raft of STG/GTG.)	SQ.M.	92,700			
b)	Curved in plan	SQ.M.	23,600			
c)	Fairface formwork for columns and top deck of STG above raft.	SQ.M.	3,000			
4.2	Providing Pockets in concrete of sectional area less than 0.1 sq.m in plan by fixing and removing formwork for anchor bolts , pipe sleeves etc. as per drgs including. all materials ,labour etc. complete as per drawings and specifications.					
a)	Up to 300 mm deep		1,300			
b)	301mm to 600mm deep	Nos.	2,000			
c)	601mm to 1000mm deep	Nos.	500			
d)	1001 mm to 1500 mm deep	Nos.	500			

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5.0	REINFORCEMENT,					
5.1	Straightening, cutting, bending, placing in position at any level, binding in position of mild steel reinforcements confirming to grade - 1 of IS - 432 (Part - 1) and TMT/HSD reinforcement conforming to IS: 1786, minimumu of Grade Fe 415 including cost of binding wire, labour, transportation to & fro from BHEL stores/storage yard etc complete all as per specification, drawings and as directed by Engineer following types of High Strength Deformed (HSD) bars reinforcement/TMT and MS reinforcement of all diameters and at all elevations using approved quality binding wires as per specifications and drawings. Note:- MS reinforcement and TMT/HSD reinforcement steel shall be provided by BHEL at free of cost and agency has to draw and transfort from BHEL Stores/storage yard and return excess materials and waste materials to BHEL stores/storage yard as per Engineer's instruction including all T & Ps and labours etc. complete.					
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	a) MS reinforcement conforming to IS:432	M.T.	90			
	b) HSD reinforcement conforming to IS:1786 of minimum grade Fe 415	M.T.	4,500			
5.2	Supplying and fixing steel wire mesh 10 SWG,100X100mm mesh,as reinforcement for encasing steel columns at all elevations as per drawings and specifications.	Sq. m.	3,200			
6.0	STRUCTURAL STEEL ,					
6.1	Fabrication of structural steels as per approved fabrication drawing (which shall be issued by BHEL, HYDERABAD), specification and relevant IS standards etc complete using approved quality electrodes of 6013 or low hydrogen 7018 for plate thickness above 20 mm, pre-heating, packing and delivering at the stores or at site of the following categories of Structural Steel work including cost of all consumables with a shop coat of approved Inorganic Zinc Silicate coating of 65-75 micron DFT after cleaning with grit blasting to SA 2 1/2 Sweedish standards complete as per drawings and EIL specification No: "SSPC-SP-10. Note:- All structural steel materials shall be provided by BHEL free of cost and agency has to draw and transport from BHEL Stores/Storage yard and return excess materials & waste/scraps materials to BHEL Stores/Storage yard as per Engineers's instructions including all T & Ps and labours etc complete.					
a)	Steel work consisting of portal frames , laced & plated columns, beams, fabricated with standard folled sections, plates , flats, angles pipes etc.	M.T.	3,230			
b)	Steel work consisting of roof trusses with standard rolled sections, plates, flats, angles, pipes etc.	M.T.	550			

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c)	Steel work consisting of purlins, non plated beams , bracings, sag rods with anchor cleats / end plates	M.T.	550			
d)	Miscellaneous steel work such as cable trench cover frames, fencing poles etc.	M.T.	270			
6.2	Erection, alignment and final welding of structural steel as described in 6.1 including grouting under bases using Convextra GP1,with necessary erection bolts, nuts & washers (which are be paid in relevant item), welding electrodes of 6013 or low Hydrogen electrodes of 7018 grade, wherever required, etc all complete as drawings and specifications.	M.T	4,600			
6.2 (i)	Supplying and fixing in position of permanent mild steel bolts (class 4.6 as per IS: 1367 and Grade "C" as per IS: 1363) and nuts , washers etc. up to and inclusive of 39mm diameter and upto 300mm long for structural steel work complete as per specification, drwaings and instructions of engineer.	Quintal	30			
6.2(ii)	Supplying and fixing in position of high strength structural bolts, HSFG/HT bolts (of property grade 8.8 and product grade "C" as per IS: 1367 and conforming to IS: 3757 and high strenght structural hardened and tempered nuts (of property class"8" as per IS"1367) conforming to IS:6623 with hardened and tempered washeres as per IS:6649 etc upto and inclusive of 39mm diameter and upto 300mm long for structural steel work complete as per specification, drwaings and instructions of engineer.	Quintal	200			
6.3	Supplying, fabricating and fixing in positions MS inserts like channels, angles, flats, rounds, plates, pipe sleeves and any other structural shape etc. including cost of steel , necessary templates / stagings, cutting to required lengths, bolting revetting welding etc. as required all complete as per drawings and specifications.	M.T.	150			
6.4	Supplying, fabricating and fixing in positions Rails section Inserts in concrete including cost of rail sections , necessary templates / stagings, cutting to required lengths, bolting revetting welding etc. as required all complete as per drawings and specifications. Note:- Please note that the agency has to quote their competitive rate including supply cost of RAIL, fabrication , laying fixing,and labours cost including all consumables, BHEL will not supply rails.	M.T.	120			
6.5	Taking delivery of foundation hardware supplied by BHEL and transporting to site, fixing in position foundation hardware such as anchor bolts, nuts, washers, anchor assembly etc. as per drawing including fixing to proper level and alignment using contractor's own templates, protecting till handover of the foundation, all complete as per drawings and specifications.	M.T.	11			

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6.6	Supplying , fabrication, transportation, erection and alignment of factory made hot dip galvanised GI floor gratings with minimum coating of zinc 710 gms per sq.m. as per IS: 4759 & other relevant codes etc complete with steel conforming to IS: 2062 at all elevations , staircase steps as per dwg including all fasteners, painting with two coats of aluminium paint at the places of site welding etc all complete as per EIL drawings No-7-68-0561.	M.T	300			
6.7	Supplying, fabricating, fixing in position 40 mm dia MS pipe handrails at various elevation as per drawing no:- 1-38142-03195 / R02 including cost of materials, consummables, labour etc. all complete as per drawing and specifications.	R.M.	1,240			
6.8	Supplying, fabricating, fixing in position by welding 18 gauge MS sheets to steel columns for encasing at various elevations , all complete as per drawings and specifications.	M.T	11			
6.9	Supplying, fabricating, fixing in position welded wire mesh to steel columns for encasing at various elevations , all complete as per drawings and specifications.	SQ.M.	2,000			
6.10	Supplying, installing and fixing in position pre-coated galvalume sheeting of minimum 0.55 mm thick having base metal thickness of 0.5 mm for roof of buildings with all necessary nuts, bolts and washers and any other fixing material and means as required as per manufacturer specifications and EIL specification at all elevations as per drawings and specifications .	SQ.M.	7,500			
6.11	Supplying, fabricating and fixing in positions Seismic Arrestor inserts made up of pipes, channels, angles, flats, rounds, plates, pipe sleeves and any other structural shape etc. including cost of steel, necessary templates / stagings, cutting to required lengths, machining of top surfaces, bolting revetting welding etc. as required all complete as per drawing No:-3-38144-00036 and specifications.	M.T.	5			
6.12 (a)	Supplying, fabricating, fixing in position 32 mm dia GI Pipe at various elevation to concrete structures as per EIL drawing no:- 7-75-0037 / R03 including cost of materials, cutting concrete, consummables, labour etc. all complete as per drawing and specifications.	R.M.	1,200			
6.12 (b)	Supplying, fabricating, fixing in position 32 mm dia MS pipe handrails at various elevation to concrete structures as per EIL drawing no:- 1-38142-03195 / R02 including cost of materials, cutting concrete, consummables, labour etc. all complete and painting of pipe shall be as per drawing and specifications., as per SI No-8.2 of Table-8.0 of EIL spec No- 6743-31-0642-PT-C06 Rev-, Section: C-3.10: , Pg- 20 of 44 , to a total thickness of minimum 245 microns with all materials, consumables and scaffoldings complete as per EIL specifications and drawings.	R.M	1,200			
7.0	MASONRY & ALLIED WORKS,					

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				IN FIGURES	IN WORDS	
7.1	Supplying and laying of coarsed rubble stone massonary in cement mortar 1:6 in foundations and basement as per specifications (Using OPC/PPC/PSC/SRC cement)	CU.M.	20			
7.2	Supplying and laying in position minimum 75 kg/cm ² brick work in foundation and upto plinth in cement sand mortar (1:6) including mixing mortar, laying bricks,raking of joints, curing etc., all complete as per drawings as spefications. (Using OPC/PPC/PSC/SRC cement)	CU.M.	200			
7.3	Similar to 7.3 in super-structure at all elevations	CU.M.	6,000			
7.4	Supplying and laying position minimum 75 kg/cm ² brickwork in half brick walls at various elevations in 1:4 cement sand mortar with HB netting at every fourth layer including mixing mortars, raking joints, curing etc all complete as per drawings and specifications. (Using OPC/PPC/PSC/SRC cement)	CU.M.	150			
7.5	Supplying and laying damp proof course 40mm thick with plain concrete (1:1 ^{1/2} : 3) nominal mix by volume with 12mm down size aggregates and minimum 3% admixture of water proofing compound with all materials complete as per specifications.	CU.M.	10			
7.6	Providing 12mm thick cement-sand (1:4) plastering with smooth cement Neeru finish to the interior faces of the walls & RCC columns coming in line with side of the wall at various elevations including mixing, laying , finishing,curing, rounding corners, cutting grooves, wherever required, etc. with all materials complete as per drawings and specifications. (Using OPC/PPC/PSC/SRC cement)	SQ. M	25,300			
7.7	Providing 15mm thick cement-sand (1:4) plastering to the exteriorr faces of the walls & RCC columns coming in line with side of the wall at various elevations including mixing, laying , finishing,curing, rounding corners, cutting grooves, wherever required, etc. with all materials complete as per drawings and specifications. (using OPC/PSC/PPC/SRC)	SQ. M	3,700			
7.8	Providing 18 mm thick cement sand plaster in two layes first layer of 14mm in cement mortar 1:4 & second layer of 6mm thickness in cement mortar 1:2 using approved quality sand for second layer, on RCC and brickwork including mixing , laying , finishing curing, rounding corners, cutting groves, whereever required, with all materials complete as per drags. and specifications. (Using OPC/PPC/PSC/SRC cement)	SQ.M	23,700			
7.9	Providing minimum 6 mm thick (1:4) cement sand plaster over concrete surfaces of columns, beams, slabs etc. similar to item 7.7 above (Using OPC/PPC/PSC/SRC cement)	SQ.M	7,300			

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7.10	Drip course at various elevations to parapet, chajja, windows, door heads etc. with all material complete as per drawings, spcns. And directions of the engineer.	R.M.	1,500			
7.11	Providing 12mm wide x 12 mm deep rectangular grooves in plaster for architectural purposes, including all materials, etc. all complete. as per drawings .	R.M.	1,000			
7.12	Extra over plaster for providing neat cement finish	SQ.M.	800			
7.13	Providing 3mm thick plaster of paris punning to newly plastered surfaces at various elevations with all materials etc., complete as per specifications and directions of engineer.	SQ.M.	12,000			
7.14	Supplying and fixing 24 G meta lath (wire mesh) at junctions of brick work and concrete work before plastering at various elevations locations as shown in drawings and as directed by the Engineer	SQ.M.	600			
7.15	Providing average 50mm thick 1:2:4 cement screed with 6mm down stone chips, to required slope with all materials, hacking the old concrete, finishing, curing etc., as per drgs & specifications.	CU.M	120			
8.0	FLOORING					
8.1	Supplying and laying 40mm thick precast terrazzo tiled flooring of approved quality and colour at various elevations including preparations of base laying underbed & tiles with white cement based topping, curing rubbing , polishing etc. with all materials complete as per drgs., finish schedule and specifications.	SQ.M.	800			
8.2	Providing 3 mm thick neat cement finish over concrete base for flooring paving etc.	SQ.M.	700			
8.3	Supplying, laying acid resistant tiled floor / DADO as per IS:4457 with 25mm thick tiles from approved mnufacturers' at various elevations including preparation of base laying underbed of 6mm thick acid proof mortar over 3layers of bitumen grade 85/25(total 3mm thick) as per IS:702 over 12mm thick CM(1:3), pointing of size 6mm x 18 mm deep with CSNL mortar or equivalent including curing of the joints with dilute hydrochloric acid(25 %) as per manufacture's specifications , with all materials complete as per drawing and specifications.	SQ.M.	1,200			
8.4	Supplying and fixing Vitrified ceramic tiles of approved make of sizes 300X300X8mm for flooring and 300X200X6 for dado up to 2.5 m elevations including pereparation of base laying underbed, finishing and rounding corners and junctions, curing etc. complete as per drawings and specifications.	SQ.M.	1,400			

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8.5	Laying 20 mm thick grey cement skirting(1:3) including preparation of base , laying underbed, finishing with neat cement, rounding corners and junctions, cutting grooves, if required curing etc., complete as per drawings and specifications.	SQ.M.	220			
8.6	Supplying laying and fixing white cement based terrazzo tiles of approved colour and make at staircase steps and landing at various elevations comprising min. 25mm thick tiles for tread of the steps and landing & 18mm thick tiles for riser, including preparation of base laying under bed, finishing polishing etc., as per drawings and specifications.	SQ.M.	600			
8.7	Supplying laying & fixing 40mm thick Kota stone flooring , skirting and dado in various elevation comprising min. 400X275mm 25mm thick stone slabs for flooring,min 400X275mm 18 mm thick stone slabs for dado and 125mm high 18mm thick stone slabs for skirting including preparation of base, laying underbed finishing, curing, polishing etc. complete as per drawings and EIL specifications.	SQ.M.	600			
8.8	Supplying and fixing Dholpur stone cladding (combination of red and beige) of 25 mm thick and approximate size of 600 mm X 450 mm of approved colour and shade to external faces of walls of building to give an even shade and colour with all matls. complete as per drawings and EIL specifications.	SQ.M.	9,400			
8.9	Supply and laying of 3mm thick PVC skirting 150 mm high including preparation, fixing tile finishing etc., all complete as per approved manufacturer's specifications.	SQ.M.	50			
8.10	Providing and laying PVC roll approved shade, texture of 2mm thickness in floor, skirting fixed over Heavy duty flooring wherever specified by means of neoprene based rubber adhesive (as per manufacture specification) including cleaning surfaces with approved detergent to remove stains etc. all complete as per specifications.	SQ.M.	450			
8.11	Providing 50mm thick heavy duty cement flooring comprising 35mm cement concrete base laying underbed in panels bound by 3X40mm PVC/ stainless steel 4X40mm glass strips followed by 15mm thick wearing top layer of cement, metallic hardner and stone aggregate, finishing, curing etc. all coplete with dust protective coating as per specifications. (Using OPC/PPC/PSC/SRC cement)	SQ.M.	3,963			
8.12	Supplying and laying marble stone flooring min. 40mm thick over all comprising min. 19 mm thick Baroda green marble stone slabs of grade -I quality including preparation of base course laying underbed , finishing, curing etc. all complete as per specifications.	SQ.M.	100			
8.13	Providing cement concrete flooring comprising of laying a thick slurry (cement @2.75 Kg. Per Sq. Mtr mixed with water) over the 25mm thick base course laying underbed in panels bound by 3X20mm PVC/ stainless steel 5X20mm glass strips and finishing, curing etc. all complete as per specifications. (Using sulphate resistance cement/slag cement)	SQ.M.	400			

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8.14	Supplying and laying pigmented epoxy coating including min 3mm thick screed and finishing coat in two coats @ 125gm./ sq.m per coat all as per specifications.	SQ.M.	400			
8.15	Supplying and laying Granite Stone flooring / cladding of approved shade and texture comprising min. 19 mm thick granite stone slabs of premium quality (grade -I), including preparation of base course laying underbed / plastering , finishing, curing etc. all complete as per EIL specifications and drawings .	SQ.M.	360			
9.0	FALSE FLOORING					
	Supplying, erecting, fitting & laying false flooring with cold formed steel channel sections and cast grooved head supports by adjusting threaded studs of 30 mm dia 600 mm long and tiles of 35 mm thick approved quality phenol bonded particle board with bottom side 0.05 mm thick Aluminium foil & top side 3mm thick best quality approved pressure laminate / antistatic PVC tile, conforming to IS:3462 for topping and PVC lipping for the edges including all necessary nuts, bolts, washers etc, all complete as per EIL drawings no:- 7-75-0047 and specifications.	SQ. M.	1,400			
10.0	FALSE CEILING					
10.1	Providing and fixing aluminum linear false ceiling system "LUXALON" by Hunter Douglas comprising of 150 mm wide 15 mm deep roll formed panels consisting of length upto 6 m, coil coated on both sides, rolled formed from stove enamelled corrosion resistant 0.5mm thick aluminium alloy AA-3105 and perforated panels for return air as per air conditioning requirements including 32mm wide & 39mm deep panel carriers made of roll formed coated steel with 0.95mm thick aluminium alloy with cutouts to hold the panels in the module of 90/100mm , including suspending carries from roof by 4mm dia galvanised steel hanger with steel by "j" hooks & nylon inserts, height adjustment clips made of spring steel at .max 1200mm c/c including providing profiles gap closure strips etc., slit openings for fixing supply / return air grill, lighting fixtres, AC diffusers etc. all complete as per drawings and specifications.	SQ. M.	2,800			
10.2	Supplying and fixing gypsum board false ceiling system comprising of 12mm thick gypsum board tiles of approved qualities and fixing to under side of grid system with 12.5mm dia dry wall screw @ 230mm c/c , and grid system made of 0.9mm thk. 45mm size and two flanges of 15mm each GI main runner suspended from ceiling @ 1.2m by means of bolting to GI cleat fixed the ceiling with dash fastners, 0.5 thk. knurled web of 51.1mm and two flanges of 26mm GI channel shaped cross runners and 0.5mm thick web size of 27mm one flange 20mm other 30mm wall runnersfixed to peripheral walls by rawl plugs/ dash fasteners @ 450mm c/c including finishing, levelling and aligning etc. all complete as per specifications.	SQ. M.	400			

SCHEDULE OF QUANTITIES FOR CIVIL, STRUCTURAL & ARCHITECTURAL WORK

AT 3X33MW CCPP, BORL - BINA PROJECT

SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
10.3	Providing Phenolic Foam under deck insulation on the ceiling system (at soffit of the slab) consisting of 25 mm and approx. 1000 mm X 500 mm size conforming to IS:13204 (having a density of 32 kg/m ³ and K value of 0.016 KCal/hr M C as per BS 4370, Part-2) faced with alluminium foil, as non-combustible as per BS:476, part - 5 including fixing the insulation to soffit / sides of beams by means of approved quality adhesive and providing & fixing 3 mm thick 190 x 25 mm L-shaped M.S. slotted cleats to the soffit of the slab with dash fasteners @ 600 mm c / c, both ways securing the insulation with chicken wire netting stretched tightly over the insulation and held by 14 SWG G.I. wire tied diagonally through the slots of cleats etc., all complete as per drgs. and EIL spec No-6743-31-16-48-SP-0054 .	SQ.M.	2,000			
11.0	PAINTING					
11.1	Providing minimum two coats of acid resistant paint over a coat of primer, if required, as per manufactures instructions to plastered surfaces. including preparation of surfaces, scaffolding etc., all complete as per drawings and specifications	SQ.M.	1,170			
11.2	Providing complete Protective coating system to Structural Steel as per SI No-8.2 of Table-8.0 of EIL spec No- 6743-31-0642-PT-C06 Rev-, Section: C-3.10: , Pg- 20 of 44 , to a total thickness of minimum 245 microns with all materials, consumables and scaffoldings complete as per EIL specifications and drawings.	M.T.	4,600			
11.3	Supplying and painting with CPCI and ERBP over concrete surfaces to foundations below ground to a total thickness of 300 - 325 microns for providing protection against marine environments as per specifications.	SQ.M.	6,612			
11.4	Providing & applying to interior surfaces two or three coats of Oil Bound distemper of approved shade & make confirming to IS : 428 to obtain a even finish and uniform color over a coat of primer as per manufacture recommendation including cost of paint, surface preparation, scaffolding etc, all complete as per spec. and drawing.	SQ.M.	12,000			
11.5	Providing and applying two coats of Plastic emulsion paint confirming to IS : 5411 , of approve shade, over a of coat of suitable primer as per manufacturer's recommendation , including cost of paint, surface preparation with 3 mm thick plaster of paris punning, scaffolding etc. all complete including scraping / removing of old paints, making the surface good with plaster of paris wherever required, all complete as per EIL specification and to the satification of engineer / architect incharge.	SQ.M.	9,600			
11.6	Providing three or more coats of white wash to give a smooth and even shade including cleaning & preperation of surfaces scaffolding etc., complete	SQ.M.	8,800			

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AT 3X33MW CCPP, BORL - BINA PROJECT

SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
11.7	Providing 2 or 3 coats of Elastomeric high stretch exterior paint of "Asian Paints" or approved equivalent of approved shade, over a coat of exterior sealer, to give an even shade as per manufacturers' instruction over concrete surfaces or newly plastered surfaces including cost of paint, preparation of surfaces, scaffolding, curing etc., all complete as per drawings and EIL specification.	SQ.M.	6,300			
11.8	Providing two coats of polishing over wood work at various elevations , including all materials, surface preparation, finishing, polishing etc. all complete, as per drawings and EIL specifications.	SQ.M.	950			
12.0	ROOF WATER PROOFING					
12.1	Preparation of grading underbed with 1:2:4 mix using 12mm down graded coarse aggregate at various elevations including mixing, laying, curing etc. in varying thickness with all materials complete as per drawings and specifications.	CU.M.	800			
12.2	Preparation of average 25 mm thick grading underbed with 1:4 cement coarse sand mortar and mixing 2% water proofing chemical admixtures of approved brand at various elevations including mixing laying, curing etc. with all materials complete as pe drawings & specifications.	SQ.M.	1,420			
12.3	Supplying and laying Polyurethane Water Proofing as per specification EIL specification Clause No- 3.3.2.5 of Document No-C3.2 of Spec No- 6743-31-16-48-SP-0054 Rev-A, Pg-22 of 22, all complete with mateterial, consumables, scaffoldings, labour etc.	SQ.M.	3,240			
12.4	Same as Item No-12.3 above but for flashing at junction of slab and parapet wall including preparation of surfaces, cuting grooves, caulking the end of flashing etc. complete as per EIL Drawing No-7-75-0068 and spec .	SQ.M.	140			
13	Providing and making 150x150mm size fillets in cement concrete 1:2:4 at junctions of roof slab and parapet wall including cutting groves, rounding corners, finishing etc. all complete as per drawings and specifications.	CU.M.	80			
13.0	DOORS, WINDOWS & VENTILATORS					
13.1	Providing and fixing Steel windows conforming to IS: 1038 and IS:7452 including handles, peg stays, stoppers, hinges , and painting with two coats of approved make epoxy paint over a coat of suitable primer etc.all complete as per and EIL specifications and drawings .					
	a) fixed type	SQ.M.	240			
	b) openable type	SQ.M.	360			

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AT 3X33MW CCPP, BORL - BINA PROJECT

SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
13.2	Supplying and erecting including assembling fitting and fixing best quality electrostatic Powder coated Pressed steel doors of 18 gauge MS sheets, with 16 gauge pressed steel frames at various elevations including frames, shutters, fittings and fixtures, CP mortice lock cum handle mastic caulking, grouting the frames, painting with 2 coats of approved quality epoxy paint over approved primer/ min. 30 micron etc. complete as per EIL and specifications and drawing No-7-75-0070 and 7-75-0071.					
	a) Single shutter	SQ.M.	100			
	b) Double shutter	SQ.M.	100			
13.3	Same as item 13.2 but with 150mm X 500mm vision panels with 6 mm thk. Plate glass etc. complete as per EIL specifications and drawing No-7-75-0070 and 7-75-0071..					
	a) Single shutter	SQ.M.	80			
	b) Double shutter	SQ.M.	120			
	Supplying and erecting including assembling fitting and fixing best quality electrostatic Powder coated Pressed steel Air tight doors of 18 gauge MS sheets, with 16 gauge pressed steel frames at various elevations including frames, shutters, fittings and fixtures, CP mortice lock cum handle mastic caulking, grouting the frames, painting with 2 coats of approved quality epoxy paint over approved primer / min. 30 micron DFT / coat etc. complete as per EIL and specifications and drawing No-7-75-0008 and 7-75-0009.					
	a) Single shutter	SQ.M.	20			
	b) Double shutter	SQ.M.	40			
13.4	Supplying,erecting, assembling best quality PVC panelled doors of Sintex make or approved equivalent for toilets including all fittings and fixtures etc. all complete as per drawings and specifications.	SQ.M.	30			
13.5	Providing and fixing in position composite, insulated type fire proof doors of approved make having 2Hrs fire rating conforming to IS :3614 Part I with all necessary fittings and fixtures including self closing hinges, locking arrangement and painting with two coats of fire proof paint over approved primer etc. complete(contracto to obtain and furnish T.A.C. approval for supplies made)					
	a) Single leaf	SQ.M.	30			

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SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
	b) Double leaf	SQ.M.	48			
13.6	Providing and fixing wooden flush doors as per EIL drawing no:- 7-75-0011 with all fittings and fixtures, approved quality heavy duty hinges, anodised aluminium tower bolts , aldrops, door stops etc. all complete as per EIL specifications.	SQ.M.	80			
13.7	Providing and fixing approved quality hydraulic door closer conforming to IS :3564 as directed by the Engineer.	Nos	10			
13.8	Providing and fixing 2mm thk. approved quality rubber sealing strip around doors and windows for making them air tight including cost of rubber strip adhesive, clips etc. all complete as per specifications and drawings.	R.M.	450			
13.9	Supplying fitting and fixing the following glazing specials at various elevations as per drg. No 7-75-0014 including supplying rubber beading, (cost of putty and glazing clips for fixing to steel windows), all materials etc. complete as per specifications to aluminium windows, doors & partitions / steel windows .					
a)	4mm thick toughened clear glass	SQ.M.	650			
b)	5.5 mm thick toughened clear glass	SQ.M.	900			
c)	6.3 mm thick laminated safety glass	SQ.M.	600			
d)	6 mm thick transprant float glass	SQ.M.	400			
13.10	Supplying, fitting and fixing 12 mm thick twin laminated Gypsum board of "India Gypsum" make conforming to IS:2905, categorised as Class-I for surfaces of very low flame spread as per BS:476, at various elevations to aluminium windows, doors & partitions, including supplying rubber gaskets, cost of all materials etc. complete as per drawings and EIL specifications.	SQ.M.	480			
13.11	Supplying and erecting including assembling fitting and fixing electrostatically Powder coated aluminum windows of INDAL , Jindal or approved equivalent at various elevations including frames and shutters , transomes, mullions, fittings and fixtures, aluminium beading, but excluding glazing, complete as per specifications and drgs. (alluminium hollow sections should be infilled with timber of silver oak) as per EIL drg. No. 7-75-0014 & 7-75-0015	SQ.M.				
a)	Openable type	SQ.M.	750			

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SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
b)	Fixed type	SQ.M.	470			
c)	Fixed Double glass windows at STG operating floor level 2.4 m high	SQ.M.	480			
13.12	Supplying and erecting including assembling fitting and fixing Powder Coated Aluminium partition frames with matching doors etc., as per drawing no. 7-75-0014 with frames, shutters, double acting heavy duty floor springs, fittings, and fixtures, mortice lock, alluminium beading but excluding glazing etc. complete (aluminium hollow sectins should be infilled with timber of silver oak)	SQ.M.	960			
13.13	Supplying,fitting and fixing Powder coated Aluminium framed doors as per drawing.no. 4-38144-0033 and specs. Same as item 13.12 but to be fixed masonry openings. (aluminium hollow sectins should be infilled with timber of silver oak)	SQ.M.	240			
13.14	Providing and fixing Powder coated aluminium ventilators all as per drawing no. 4-38144-00018 (aluminium hollow sections should be infilled with timber of silver oak)	SQ.M.	200			
13.15	Supplying, fitting and fixing 12 mm thick twin laminated Medium Density Fibre(MDF) boards (mannufactured from agrobased lignocellulosic fibres conforming to IS:12406, exterior grade with synthetic resin conforming to IS:848, BWP type) , categorised as Class-I for Surfaces of very low flame spread as per BS:476 and twin laminated with 1.0 mm thick melamine of approved make and shade at various elevations to aluminium windows, doors & partitions, including supplying rubber gaskets, cost of all materials etc. complete as per drawings and EIL specifications.	SQ.M.	490			
14.0	ROLLING SHUTTERS :					
14.1	Supplying, erecting, assembling, fitting and fixing rolling steel shutters of 18 gauge steel sheets with 16 gauge MS rolled channel frame as per IS:6248 from approved manufacturers including all fixtures, accessories locking arrangements, electrical motor and electrical wiring for mortar driven, shop coat of approved epoxy primer and two coats of epoxy paint of approved brand and shade after erection with all fittings and fixtures etc all complete as per specifications and drawings. (All the rolling shutters irrespective of their size should have mechanical as well as electrical opening arrangements.)	SQ.M.	350			
15.0	SANITATION / PLUMBING					
15.1	Supplying and erecting HDPE cylindrical and vertical water tank with closed top of SINTEX make or approved equivalent of following capacity.					
	a) 1500 LTR	Nos	4			

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AT 3X33MW CCPP, BORL - BINA PROJECT

SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
	b) 2500 LTR	Nos	6			
	C) 5000 LTR	Nos	8			
15.2	Supplying, fitting and fixing heavy cast iron " Roof Drain" pipes at various elevations including shoe bends junctions, sockets, adapters, brackets, hangers, supports etc jointing, caulking prime coat of painting with anticorrosive paint including all materials etc complete as per drawings and specifications.					
	a) 100 mm dia.	R.M.	40			
	b) 150 mm dia.	R.M.	1,500			
15.3	Similar to item no:-15.2 above supplying fitting and fixing of PVC drain pipes of approved make at various elevations including shoe bends junctions sockets, adapters, brackets, hanger supports etc., jointing with appropriate adhesives, including all materials complete as per drawings and specifications.					
	a) 100 mm dia pipes	R.M.	20			
	b) 150 mm dia pipes	R.M.	60			
15.4	Supplying, fitting and fixing Roof drain heads with high domed gratings as per drg. No. 7-75-0068 at various elevations, including connecting to roof drain pipes, caulking with lead supports / fixing with adhesive for PVC pipes, hangers etc, prime coat of painting with anti - corrosive paint with all materials as per drawings and specifications.					
a)	Heavy duty C.I. Heads					
	i) 100 mm pipe	Nos.	10			
	ii) 150 mm pipe	Nos.	62			
b)	PVC roof drain heads					
	i) 100 mm pipe	Nos.	10			
	ii) 150 mm pipe	Nos.	20			

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SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
15.5	Supplying, fitting fixing the following best quality sanitary fixtures of " Hindustan Sanitaryware" or approved equivalent make at various elevations including all necessary accessories, cutting and making good of concrete / brickwork for concealing all connecting pipes and bends with all materials etc all complete as per specifications and drawings.					
a)	European type type water closet conforming to IS:2556 with white glazed stone ware basin with plastic seats & cover and low level PVC cistern of 15 litre discharge capacity including valveless fittings, flush bends, supply connections, syphon , integral 'S' or 'P' trap etc. all complete as per EIL Drg. No-7-75-0062	NOS	10			
b)	Indian pattern water closet (Orissa pan size 580 mm conforming to IS:2556) with white glazed stone ware and integral 'footrest; 15 litre capacity highlevel PVC flushing cistern including valveless fittings, with all necessary fixtures, integral with 'S' or 'P' trap etc. all complete as per EIL drg. No-7-75-0060 and specifications .	Nos.	14			
c)	610 x 410 x 380 mm large flat back urinals with a pair of 250 X 125 mm white ceramic foot rest with concealed hangers and brackets, CP brass spreader for concealed piping work, CP brass waste fittings, 30 mm dia heavy duty bottle trap etc all complete as per EIL drg No-7-75-0063 and specifications.	Nos.	28			
d)	Automatic high level PVC cistern with mosquito proof lid, interior painted with 2 coats of anti corrosive paint complete with loose key CP brass bibcock					
e)	Cistern capacity 5 ltrs.	Nos.	10			
ii)	Cistern capacity 10 ltrs	Nos.	12			
iii)	Cistern capacity 15 ltrs	Nos.	14			
iv)	White poreclain division plate of size 840 X 300 mm with CP brass screws	Nos.	20			
f)	550 x 400 mm wall hung white glazed stone ware flat back wash basin with provision for tap holes in three locations with supporting brackets,C.P brass 30mm dia waste fittings,heavy duty CP bottle trap,one no. 15mm dia long nose C.P brass pillar cock,one number supply connection with 300.mm long,15 mm dia P.V.C pipe with brass nuts at both ends and C.P brass stop cock etc,complete as per drgs and specifications .	Nos.	30			
g)	150 x 150 mm recessed white glazed porcelain soap tray .	Nos.	10			

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SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
h)	Chromium plated shower set with 100/150 mm dia brass shower rose with rim arm, wall flange, hot/ cold water mixing valves including handle and concealed supply pipe including 600mm long C.P grab bar, bibcock etc, as per specifications all complete.	Nos.	10			
i)	600 x 450 x 6 mm thk bevelled edge mirror of superior glass with necessary fixtures as per specifications.	Nos.	20			
j)	35 litre capacity hot water geyser of approved make.	Nos.	5			
k)	600mmX120mmX4mm thick clear glass shelves with chromium plated brackets, guard rails etc, all complete	Nos.	10			
l)	600 mm long, 20 mm dia and 1.25 mm thick chromium plated brass towel rail with brackets fittings, etc, complete.	Nos.	10			
m)	All Chromium plated standard liquid soap dispenser of approved make with all fittings etc, complete.	Nos.	10			
n)	12 mm dia CP brass ablution tap with all fittings complete.	Nos.	30			
15.6	Supplying, fitting fixing the following best quality Automatic Urinal flush Control System of approved make at various elevations including all necessary accessories, cutting and making good of concrete / brickwork for concealing all connecting pipes and bends with all materials etc all complete as per specifications and drawings.	Nos.	28			
15.7	Supplying, fitting and fixing 100 mm dia inlet and 80/100 mm dia outlet SS floor drain with trap and with screwed or hinged CP brass gratings.	Nos.	20			
15.8	Providing 300 x 300 x 675 mm chamber in 1:4 brickwork 115 mm thick with plain concrete 1:2:4 foundation cement mortar including supplying and fixing 100 mm. dia square mouth gully trap, gratings, CI frame and cover, all complete as per specifications.	Nos.	10			
15.9	Supplying, laying, fitting, fixing and jointing concealed GI pipes conforming to IS:1239 for water lines at various elevations pipes underground with all fittings bends, teas, reducers etc. including excavation, backfilling, supports, caulking, chases, grooves, hangers, supports, straps etc. painting as specified all complete as per specification and drawings.					
a)	12 mm dia	R.M.	150			
b)	19mm dia	R.M.	150			
c)	25 mm dia	R.M.	150			

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SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
d)	32 mm dia	R.M.	150			
e)	50 mm dia	R.M.	150			
15.10	Supplying, laying, fitting, fixing and jointing extra heavy cast iron soil and drain pipes underground with all fittings bends, tees, reducers etc. including excavation, backfilling, supports, caulking, chases, grooves, hangers, supports, straps etc. pain- ting as specified all complete as per specification and drawings.					
a)	100 mm	R.M.	150			
b)	150 mm	R.M.	600			
15.11	Same as 15.11 but over ground, including vent pipes and cowls.					
	a) 100 mm	R.M.	100			
	b) 150 mm	R.M.	300			
15.12	Supplying fitting and fixing CI heavy duty man hole cover of 50 cm dia of approved brand as per specification	Nos.	20			
16.0	SURFACE AND UNDERGROUND DRAINS					
16.1	Supplying and installing of PVC pipes of following diameter as per specifications and drawing.					
a)	100 mm dia	R.M.	100			
b)	150 mm dia	R.M.	120			
c)	250 mm dia	R.M.	140			
16.2	Providing and installing RCC Hume pipes of class NP-2 of following diameters with collars,at all depths including bedding, jointing etc. all complete as per drawing and EIL specifications . (excavation and backfilling to be measured seperatly under relevant items)					
a)	150 mm	R.M.	160			
b)	200 mm	R.M.	200			

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SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
c)	250 mm	R.M.	250			
d)	300 mm	R.M.	300			
e)	450 mm	R.M.	150			
16.3	Providing and installing RCC Hume pipes of class NP-3 of following diameters with collars,at all depths including bedding, following diameters. (excavation and backfilling to be measured seperatly under relevant items)					
a)	450 mm		30			
b)	500 mm	R.M.	30			
c)	600 mm	R.M.	30			
16	Providing and installing SWG pipes at all depths including jointing and excavation up to 1 m depth and backfilling all complete as per specs and directions of the Engr.					
	b) 150 mm dia.	R.M.	150			
	a) 200 mm dia.	R.M.	200			
	a) 250 mm dia.	R.M.	250			
16.4	Supplying, laying, jointing, testing and commissioning of double coated and double wraped Carbon Steel pipes of the following diameter below GL including all material complete as per drawing and specifications.					
a)	100mm dia as per IS: 1239	R.M.	150			
b)	150mm dia as per IS: 1239	R.M.	200			
c)	200mm dia as per IS: 3589	R.M.	250			
16.5	Supplying, fitting, fixing, drain funnels of following diameters below GL					

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SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
a)	150mmdia as per drg. No. 4-38142-00055	Each	20			
b)	250mm dia as per drg. No. 4-38144-00053	Each	25			
17.0	ROADS/PAVING					
17.1	Consolidating subbase before providing stone soling/WBM with road roller including watering, if required to obtain 95% proctor density including making good undulation etc. all complete as per drawing and specifications .	SQ.M.	35,100			
17.2	Supplying,laying and rolling Stone soling of consolidated thickness 250mm in 2layers including spreading binding material(sand / morrum) watering and rolling with road roller etc. all complete as per drawings and specifications .	SQ.M.	45,100			
17.3	Supplying and laying WBM in 150 mm consolidated thickness in two layers with dry and wet rolling etc complete as per drgs and specifications.	SQ.M.	35,100			
17.4	Providing and laying 75 mm compacted thickness of premixed bituminous carpet (hot process) finish over WBM surface including provision of a tack coat and a seal coat,using bitumen conforming to IS : 73 , preparation of surfaces, rolling etc.complete as per specs.	SQ.M.	35,100			
17.5	Supplying,laying and setting precast concrete edging blocks 300 x 150 mm (at base) and a min.length of 450 mm (except at curves) in M 20 grade concrete including cutting of trench and packing exterior face of blocks with stone chips and murrum including pointing the joints with CM 1:4 etc. all complete as per drawings and specifications	R.M.	12,000			
17.6	Supplying, Spreading & filling murrum 150 mm thick and consolidation and preparation of sub base including watering and rolling & compaction with power roller 10-12 T capacity to the required density (95% of proctor density) & upto satisfaction of BHEL	CU.M.	5,000			
18.0	MISCELLANEOUS ITEMS					
18.1	Supplying and spreading 40mm size stone chips / gravels in transformer yards	CUM	320			
18.2	Supply, fabricating and fixing in position transformer gate / fencing as per drg. no:7-75-0051 including painting with aluminium paint two coats over suitable primer etc.complete., excavation,concreting and post etc to be measured separately.	SQ.M.	150			
18.3	Supplying and fixing in positions Anchor Fasteners of FISCHER make FBN bolt or approved equivalent of following diameters in concrete, including drilling in concrete, driving the anchor fastner, finishing the conrete etc., all complete as per drawings and specifications					

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SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
	a) 8 mm	Nos	40			
	b) 10 mm	Nos	50			
	c) 12 mm	Nos	60			
	d) 14 mm	Nos	40			
	e) 16 mm	Nos	30			
	f) 20 mm	Nos	20			
18.4	Supplying and fixing in positions 100 mm wide Aluminium strips of approved make in expansion joints with brass screws including drilling in concrete, all complete as per drawings and specifications	R.M.	140			
18.5	Cutting and drilling holes of the following diametes using diamond cutter drilling machine with all material, labour etc., all complete as per drawings and specifications.					
	a) 100mm dia x 200 mm deep	Nos	20			
	a) 150mmdia x 200 mm deep	Nos	30			
	a) 200mm dia x 200 mm deep	Nos	20			
	a) 250mm dia x 200 mm deep	Nos	20			
18.6	Providing Anti-termite treatment to building columns and floors of Chloropyrifos emulsifiable concentrates (1%) conforming to IS:8499 and IS: 6313 with cost of material, labour, consumables etc, all complete as per drawings and EIL specifications	Sq. m	5,800			
19.0	FENCING					
19.1	Supplying and fixing chain link mesh conforming to I S : 2721, both ends bent type,mesh size 50 mm, dia.of mesh wire 4 mm , with 2 nos line wire 4 mm dia. including tying to RCC / STEEL posts neatly with GI wires including cost of all materials etc.complete.	SQ.M.	3,600			

BHEL PS WR
TS : BHE/PW/PUR/BINA-CVL/477
PRICE BID, PART-II, VOLUME-III

SCHEDULE OF QUANTITIES FOR CIVIL, STRUCTURAL & ARCHITECTURAL WORK

AT 3X33MW CCPP, BORL - BINA PROJECT

SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
19.2	Supplying and fixing barbed wire fencing of approved quality, including tying to RCC / STEEL posts neatly with GI wires including cost of all materials etc.complete.	R.M.	1,000			
20.0	DISMANTLING OF STRUCTURE					
20.1	Dismantling and removal before modification of the following items in the existing structures with all labour, tools, transport etc. all complete including delivering as directed by Engineer.					
	a) Concrete (plain)	CU.M.	20			
	b) Concrete (rein forced)	CU.M.	50			
	c) Brickwork	CU.M.	50			
	d) Doors, windows, ventilators	SQ.M.	50			
	e) 50 Tk.premix carpet	SQ.M.	200			
	f) Pipe hand rail	R.M.	50			
	g) GI sheetings	SQ.M.	80			
	h) Structural steel	M.T.	20			
	i) WBM/soling for roads or paving	SQ.M	200			
	j) Dismantling of false ceiling	SQ.M	100			
21.0	GROUNDING					
21.1	Drawing earthing strips from B H E L stores(earthing strips free supply) Laying, cutting , jointing , welding, painting the joints with cold galvanising paint after welding and testing ground conductors including cost of excavation up to 1m, backfilling, galvanising paint , labour, material etc. complete as per drawing and specifications. (All ground conductors will be issued by BHEL free of cost)					
a)	Earthing strip 75 X 10 mm	R.M.	6,000			

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SL NO	DESCRIPTION	UNIT	QUANTITY	RATE IN RS		AMOUNT
				IN FIGURES	IN WORDS	
b)	Earth risers of 75X10 mm GI strip	R.M.	500			
c)	Test Pit Electrode as per drg. no.:GT57191 construction of masonry chambers with M.S. covers (for test electrodes), filling with sand, charcoal and salt etc. all complete as per drawings and specifications. Agency has to quote inclusive of all materials, labour etc. complete.	Nos.	100			
d)	Pipe Electrode as per drg. no.GT57191 sheet 2.(Ref. specs.). Agency has quote their offer including cost of pipe electrode, labour cost etc. complete.	R.M.	100			
22	PROVIDING SERVICES OF PIT LESS WEIGH BRIDGE OF 100MT WEIGHING CAPACITY OF SIZE 20 M x 3.5 M ON BUILD, OWN AND OPERATE BASIS AT 3x33MW CCPP, BORL, BINA as per Technical Specification provided elsewhere in the tender FOR AN OVERALL CONTRACT PERIOD OF 22 MONTHS THAT INCLUDES 2 MONTHS INSTALLATION PERIOD AND 20 MONTHS OPERATION PERIOD.	Lump Sump				
	TOTAL OF ALL ABOVE ITEMS IN RS					
	REBATE OFFERED BY THE BIDDER ON TOTAL IF ANY					
	NET PRICE QUOTED BY BIDDER IN RS (Total - rebate)					
s (Rs						