

# **TENDER SPECIFICATION**

**BHEL:PSSR:SCT: 1276**

**FOR**

Construction of 1 No Office Building of size 12 M x 32 M , 1 No Mess Building of size 5 X 8 M, 3 Nos store shed of size 15 M x 60 M, 2 Nos semi closed shed of size 12 X 32 M Storage yard development, approach road, fencing and other connected civil works

**at**

**VALLUR THERMAL POWER PROJECT  
2 X 500 MW STAGE -I  
NTPC -Tamil Nadu Energy Company Ltd.  
Kuruvimedu, Ponneri Taluk,  
Thiruvallur -District .**

**TAMIL NADU**

**PART - II PRICE BID**

**BOOK NO :**



**BHARAT HEAVY ELECTRICALS LIMITED**

(A Government of India Undertaking)

Power Sector - Southern Region

690, Anna Salai, Nandanam, Chennai - 600 035.



## **Bharat Heavy Electricals Limited**

(A Govt. of India Undertaking)

Power Sector – Southern Region

EVR Periyar Building

690 , Anna Salai, Nandanam, Chennai – 600 035.

### **TENDER SPECIFICATION NO:BHEL:PSSR:SCT:1276**

#### NAME OF WORK

Construction of 1 No Office Building of size 12 M x 32 M , 1 No Mess Building of size 5 X 8 M, 3 Nos closed stores building of size 15 M x 60 M, 2 Nos semi closed building of size 12 X 32 M Storage yard development, approach road, fencing and other connected civil works including Sewage, Water Supply and Electrical works. at Vallur Thermal Power Project NTECL 2 X 500 MW STAGE –I Kuruvimedu,Ponneri Taluk, Thiruvallur –District. Tamil Nadu

(PRICE BID)

PART II

Issued to  
M/s.

For and on behalf of  
BHARAT HEAVY ELECTRICALS LIMITED

Additional General Manager/Contracts

(This tender document is not transferable)

Place: Chennai-600 035.

Date:

<b>BHARAT HEAVY ELECTRICALS LIMITED</b>					
<b>POWER SECTOR : SOUTHERN REGION CHENNAI - 600 035</b>					
<b><u>RATE SCHEDULE</u></b>					
<b>NAME OF WORK : CONSTRUCTION OF 1 NO OFFICE BUILDING OF SIZE 12 X 32 M, 1 NO MESS BUILDING OF SIZE 5 X 8 M, 3 NOS STORE SHED OF SIZE 15 X 60 M, 2 NOS SEMI CLOSED SHED OF SIZE 12 X 32 M, STORAGE YARD DEVELOPMENT, APPROACH ROAD, FENCING AND OTHER CONNECTED CIVIL WORKS AT VALLUR TPP 2 x 500 MW</b>					
<b><u>PART 'A' CIVIL WORKS</u></b>					
<b>NOTE : WHEREEVER CEMENT,REINFORCEMENT AND STRUCTURAL STEEL IS REQUIRED,THE SUPPLY( OF APPROVED BRAND) IS TO BE ARRANGED BY CONTRACTOR AT HIS OWN COST. THE QUOTED RATE SHALL INCLUDE COST OF CEMENT AND STEEL ALSO.</b>					
<b>S. No</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Amount</b>
<b><i>I PART ' A ' CIVIL WORK</i></b>					
1	Earthwork excavation in all kinds of soils (except hard rock, soft disintegrated rock ) and depositing within an initial lead of 50 m for foundations, sewers etc., Rate to include baling, strutting, shoring, sectioning the sub grade to proper level , grade, watering & consolidating to receive the concrete bed and refilling the foundation, basement & trenches with excavated earth and consolidating, all as per standard specifications.	1400	Cum		
2	Earthwork excavation in soft disintegrated rock soft laterite, rock, kankar and soft rock not requiring blasting and depositing within an initial lead of 50 m and initial lift of 2 m for foundation, sewer lines etc. rate include baling, strutting, shoring etc., cost of sectioning the subgrade of proper level and grade, watering and consolidating to receive concrete bed and refilling the foundation, basement and trenches with excavated material all as per standard specifications. Payment will be based on pit measurements	500	Cum		
3	Supply at site of work and filling with good river sand and compacting well with watering, ramming, for foundation and basement.	1400	Cum		
4	Clearing jungle including uprooting of rank vegetation, grass,,brush ,wood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	4600	Sqm		

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S. No	Description	Quantity	Unit	Rate	Amount
5	Providing 1.5 m high fencing with 1.95 m MS angle 50x50x6 mm posts placed every 3 m center to center embedded in cement concrete blocks 35x35x45 cm of 1:4:8 (1 cement: 4 fine sand: 8 graded stone aggregate 40 mm nominal size), every 15 <sup>th</sup> post last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with 12 horizontal lines and two diagonals inter woven with horizontal wires of barbed wire 9.38 Kg per 100 m (min) between the two posts and fixed with GI staples, turn buckles etc., complete. Rate to include cost of MS angle posts, struts, earth work, concrete, painting synthetic enamel two coats for MS angle posts and struts,labour charges etc., complete as per standard specifications.	3000	Rm		
6	Preparation of sub grade by excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with power road roller of 8 to 12 tonnes capacity including making good the undulations etc., and disposal of surplus earth lead upto 50 mtrs.	12000	Sqm		
7	Disposal of excavated earth from initial lead of 50M and lead up to 2 KM lead by transporting, dumping and levelling area as directed by Engineer in charge.	1000	Cum		
8	Supplying and laying of soling stones of size 225 mm	11250	Cum		
9	Supplying and laying of moorum at site	15000	Cum		
10	Laying water bound macadam with specified stone aggregate stone screening and blinding material (moorum) including screening, sorting, spreading to template and consolidating with power road roller of 8 to 12 tonnes capacity etc., complete. Rate shall include the cost of all raw materials,labour and hire charges for road roller.				
a)	Subbase with stone aggregate 90 mm to 45 mm including stone screening (13.2 mm size)	1200	Cum		
b)	Subbase with stone aggregate 63 mm to 45 mm including stone screening (13.2 mm size)	1800	Cum		
11	Collection of earth from outside the project area and supplying to BHEL site, including excavation, loading, transporting, unloading, stacking, filling etc., compacting with watering, ramming etc., complete. Payment will be made based on stack measurement.	2000	Cum		

S. No	Description	Quantity	Unit	Rate	Amount
12	Providing and laying PCC of mix 1:4:8 using 40mm size hard broken granite stone jelly including ramming,levelling, curing etc., for flooring and foundations including providing necessary slopes etc., complete as per standard specifications at heights.	540	Cum.		
13	Providing random rubble masonry in C.M. 1:5 using hard granite stone of approved quality including simultaneous flush pointing as per specifications for foundation and basement.	700	Cum.		
14	Providing damp proof course (DPC) in cement concrete 1: 2: 4, 40 mm thick with 12 mm and down graded blue granite chips. The concrete shall be well rammed and smoothed out with trowel and when dry, two coats of hot bitumen, grade 80 / 25 shall be applied @1.5 kg / sqm over it & allowed to dry, after which clean sand & 0.01 cum / sqm shall be sprinkled over the concrete. Rate to include cost of all materials, labour etc. complete.	300	Sqm		
15	Providing brick work in C.M 1 : 6 in foundation and superstructure using clay bricks as per standard specifications. Rate to include cost of scaffolding, labour, curing etc., complete.	600	Cum		
16	Providing brick partition wall 115 mm thick in C.M. 1 : 4 using clay bricks of approved quality including plastering all faces with C.M.1:5, 12mm thick, all as per standard specifications.	260	Sqm		
17	Supplying and erecting including assembling fitting and fixing 25 micron anodised or 50 micron powder coated aluminium partition frames with matching doors etc., as per drawing with frames, shutters, double acting heavy duty floor springs, fittings, and fixtures, mortice lock, aluminium beading and fixing 12 mm thick twin laminated particle board of NOVAPAN make or approved equivalent to aluminium partitions and door frame etc., complete. Rate to include all aluminium sections, particle board, fixtures etc., complete.	270	Sqm		

S. No	Description	Quantity	Unit	Rate	Amount
18	Providing and laying R C C of mix 1: 2: 4, using 20mm down size hard broken granite stone jelly for all types of RCC works at all heights including centering, shuttering, scaffolding, finishing, curing etc. complete, but excluding cost of reinforcement fabrication all as per standard specifications. Rate to include for providing necessary slope in the concrete as directed by Engineer in charge.	250	Cum		
19	Cutting, bending, binding and placing in position with necessary binding wire of CTD bars for reinforcement including cost of MS binding wire of 18 / 20 gauge for all types of R C C works at all heights. Rate to include cost of steel, labour, fixing charges etc., complete.	30	Mt		
20	Providing plastering with CM 1 : 6, for the following thicknesses all as per standard specifications, including rendering smooth, rounding of corners etc., complete.				
a)	12mm thick	3020	Sqm		
b)	18mm thick	2700	Sqm		
21	Providing plastering with CM 1: 3 12mm thick using water proofing compound 2% by weight of cement (Accoproof or impermo or equivalent as specified in IS 2645 ) for water facing surfaces as per standard specifications.	30	Sqm		
22	Finishing the top of floor with 20 mm thick cement concrete (without sand) in the proportion of one part of cement & three parts of 3 to 6 mm grade hard broken granite stone chips, finishing the surface smooth, curing, etc., complete all as per standard specifications at all levels (ELLIS pattern flooring first sort).	410	Sqm		
23	Providing and fixing in position of RCC precast slabs of various thickness in mix 1:2:4 using 6 to 12mm size hard broken blue granite stone jelly including moulding, shuttering, finishing, curing, carrying, fixing in position etc. complete, but excluding cost of reinforcement fabrication charges, all as per standard specifications.				
a)	50 mm thick slab	280	Sqm		
b)	75 mm thick slab	530	Sqm		

S. No	Description	Quantity	Unit	Rate	Amount
24	Supplying, fabricating and fixing in position of steel glazed windows and ventilators of standard rolled steel sections, 100 x 15 x 3 mm lugs embedded in cement concrete 1: 3: 6 blocks of size 150 x 100 x 100 mm including providing 10 mm square horizontal bars at 100 mm c / c welded to the frame, glazing with glass panes fixed with glazing pins and special sash putty of approved make, and two coats of enamel paint of approved make, and colour. Rate to include cost of raw material, metal beading, hinges or pivots, appliances, labour, fixing, painting etc., complete, all as per standard specifications.	80	Sqm		
25	Providing and fixing approved quality hydraulic door closure conforming to IS 3564 as directed by Engineer in charge.	8	No		
26	Manufacturing, supplying and fixing of flush door comprising of 30 mm thick with flush door frames of size 95 mm x 70 mm including cost of wind appliances hold fasts, furniture and fittings all as per standard specifications (single or double leaved door). Rate to include cost of labour, painting one priming coat and two coats of ready mixed synthetic enamel paint of approved make and colour.	60	Sqm		
27	Supplying, fabricating steel gate of 6.0 m wide as shown in the drawing transporting components to erection site and erection of fabricated steel work including all handling, leading, assembling, hoisting, erection in position and site welding/fastening, bolts wherever required as per drawing and specification. Rate to include providing PCC 1 : 4 : 8 for supporting the pillars, cost of raw steel, fabrication, erection, all consumables cement, labour charges etc., complete including synthetic enamel painting two coats over one coat of red oxide primer.	4	No		

S. No	Description	Quantity	Unit	Rate	Amount
28	<p>Providing and fixing at all height false ceiling of 12.5 mm thick tapered edge gypsum board conforming to IS 2095 including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating 600 as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 22 mm and 37 mm at 1200 mm centre to centre one flange fixed to the ceiling with dash fastener 12.5 mm dia x 40 mm long with 6 mm dia bolts to the angle hangers of 25 x 25 x 5 mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I. channels 45 x 15 x 0.9 mm running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having clips of 10.5 mm at 450 mm centre to centre shall be fixed in a direction perpendicular to G.I. channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction including fixing the gypsum board with ceiling section and perimeter</p>	500	Sqm		
	<p>...continued from item no. 28 channels 0.5 mm thick with 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/ partition with the help of rawl plugs at 450 mm centre to centre with 25 mm long drive all screws @ 230 mm interval including jointing and fixing to a flush finish of tapered and square edges of the gypsum board with recommended filler, paper tapes, finisher and two coats of primer suitable for gypsum board as per manufactures specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of the Engineer in charge but excluding the cost of painting.</p>	-	-	-	0

S. No	Description	Quantity	Unit	Rate	Amount
29	Supplying and fixing in position of 18 SWG steel rolling shutters of approved make, made up of 80 x 1.25 mm MS laths with 1.25 mm thick top cover interlocked together through the entire length and joined together at the end by end locks mounted on specially designed pipe shaft including erecting and fixing in position as directed by Engineer in charge with necessary side brackets, guide channels, top cover arrangements, inside and outside locking arrangements and providing a priming coat of red oxide primer and 2 coats of synthetic enamel paint of approved colour and quality etc. complete as per standard specifications.	50	Sqm		
30	Finishing walls with water proofing cement paint of required shade as per standard specifications for new work (two or more coats) as per instructions of Engineer in charge.	3020	Sqm		
31	Supplying and painting distemper two coats over a priming coat using best quality oil bound washable distemper of approved make and colour. Rate to include cost of cleaning and preparation of the surface, applying putty, labour, materials etc., complete.	2700	Sqm		
32	Supplying medium duty Galvanised Iron pipes of the following sizes at site of work, laying to proper line and level in ground or jointing and fixing on walls & floors for water supply pipe lines with all necessary specials, unions and appurtenances, testing as per standard specifications, making necessary earthwork in ground, holes, chases etc. on floor & wall and making good all damages and finishing to match with the existing work, refilling the trenches with excavated earth and filling chases & grooves in walls and all other incidental charges etc. complete. Rate to include cost of GI pipes, specials and all other works.				
a)	40mm dia GI pipe line with specials	100	Rm		
b)	25mm dia GI pipe line with specials	100	Rm		
c)	20mm dia GI pipe line with specials	50	Rm		
d)	15mm dia GI pipe line with specials	50	Rm		

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S. No	Description	Quantity	Unit	Rate	Amount
33	Supplying at site of work and laying stoneware pipes of the following sizes in trenches and jointing with CM 1: 2 and testing with water as per standard specifications. Rate to include cost of stoneware pipes, specials, all jointing materials like hemp yarn, sand, cement, conveyance of water, tools & plants for testing , labour and all incidental charges etc. complete & includes earthwork excavation for trenches and back filling.				
a)	100mm dia SW pipe line with all specials	50	Rm		
b)	150 mm dia SW pipe line with all specials	100	Rm		
34	Floor finishing with 25 mm thick ironite floor laid in panels of 1mx1m, over a concrete base of 100mm thick, PCC 1:2:4 the concrete base of 100mm thick is to be laid using 20 mm down graded hard broken blue granite stone jelly. Floor finishing of 25 mm thick is to be laid while the base concrete is wet for proper bond, the bottom 15 mm thick consists of one part of cement and one part of 6 mm downgraded hard broken blue granite stone chips (the proportion being by volume) and the top 10mm finish with hardening compound of proportion one part of hardonite (ironite or equivalent) 4 parts of cement and 8 parts of 6mm downgraded hard broken blue granite stone chips (the proportion being by weight). Rate to include cost of 100mm thick base PCC 1:2:4 and top finish of 25 mm thick granolithic flooring including cost of materials, form work, finishing labour, cruring etc. complete as per standard specifrications and instructions of Engineer in charge	2700	Sqm		
35	Supplying and fixing in position 15 mm nominal size screw down type brass bib cock of approved make and quality (leader, dripless or orient ) as per standard specifications. Rate to include cost of bib cock, jointing materials, labour for carrying, fixing and testing etc. complete.	10	No		
36	Supplying at site of work & fixing in position of 20 mm size brass stop cock of approved make and quality (leader, dripless or orient) as per standard specifications. Rate to include cost of stop cock, jointing materials, labour for carrying fixing and testing etc. complete.	10	No		

S. No	Description	Quantity	Unit	Rate	Amount
37	Supplying at site of work and fixing in position of the following size of Gun metal wheel valve of approved make and quality ( leader,dripless or orient) as per standard specifications.Rate to include cost of wheel valve, jointing materials, labour for carrying , fixing & testing complete.				
a)	15mm dia nominal size wheel valve	4	No		
b)	20mm dia nominal size wheel valve	4	No		
c)	25mm dia nominal size wheel valve	2	No		
d)	40mm dia nominal size wheel valve	4	No		
38	Supplying at site of work & fixing in position of high class, superior & approved make machined edge mirror of size 600 x 450 x 5.50 mm, mounted on 6 mm thick plywood sheet. Rate to include cost of all materials, wooden plugs, CP brass screws, clips, washers etc., complete.	8	No		
39	Supplying at site of work & fixing in position 600 X 20 mm dia chromium plated wall mounted towel rod with brackets, etc. all complete as per specification.	8	No		
40	Supplying at site of work, carrying, laying, jointing and fixing in position of two white glazed earthen ware flat back type angular lipped urinals of 430 x 230 x 350 mm with one high level CI flushing tank of 5 litre capacity connected to both the urinals, tank, connecting pipes, painting with two coats of synthetic enamel paint over one coat of red oxide primer.	3	Set		
41	Supplying at site of work, carrying, laying jointing and fixing in position of European type white glazed earthen ware water closet pan with seat and lid, C.P. Brass hitches and rubber buffers of size 580mm x 440 mm of approved quality and make with suitable P or S trap, 10 litre low level PVC flushing cistern (of approved make) with fittings, over flow arrangements with specials etc. complete. Rate to include cutting the walls and floors wherever required and making good all damages and finishing to match the existing work, cost of jointing materials, labour for carrying , fixing and testing and all other incidental charges etc.,complete. (Hindustan or Parryware )	4	No		

S. No	Description	Quantity	Unit	Rate	Amount
42	Supplying at site of work, carrying, laying jointing and fixing in position of Indian type white glazed earthen ware water closet pan of size 580 mm x 440 mm of approved quality and make with suitable P or S trap, 10 litre low level PVC flushing cistern (of approved make) with fittings, over flow arrangements with specials etc. complete. Rate to include cutting the walls and floors wherever required and making good all damages and finishing to match the existing work, cost of jointing materials, labour for carrying , fixing and testing and all other incidental charges etc., complete. (Hindustan or Parryware )	2	No		
43	Supplying at site of work, carrying and fixing in position of white glazed earthenware wash hand basin of size 580 x 430 x 225 mm of approved make quality ( Hindustan or Parryware ) with 2 numbers of ISA 40x40x4 mm angles for brackets painted with two coats of synthetic enamel paint, 15 mm CP brass S trap and unions, PVC waste pipe of 32mm dia of required length etc., complete. Rate to include cutting & making good the walls wherever required, cost of all materials, labour for carrying, laying , fixing and testing and all other incidental charges.	8	No		
44	Supplying at site of work & fixing in position of 100 x 75 mm NAHANI trap with CI gratings as per standard specifications. Rate to include cost of all materials, labour for fixing, testing etc., complete.	10	No		
45	Supplying at site of work & fixing in position of 150 mm stone ware GULLY trap and providing RCC precast slab covering etc., complete as per standard specifications. Rate to include cost of all materials, labour for fixing, testing and cost of RCC cover complete.	2	No		
46	Flooring, dado or skirting with coloured ceramic tiles of required size as specified in tender specification laid in cement mortar 1:3, 12 mm thick over roughened wall or floor at any level including painting neatly with cement of appropriate colour etc., complete.	350	Sqm		
47	Construction of a masonry inspection chamber of size 60 x 60 cm internal using brick work in CM 1:6, and plastering in CM 1:5, bottom finished with PCC 1: 2: 4 making necessary chamfering etc., complete.	10	No		

S. No	Description	Quantity	Unit	Rate	Amount
48	Construction of a septic tank of size 6.00 x 2.40 x 2.70 metre and a cess pool of 3.00 metre dia as per drawing No. 2-BHE / SR / CVL / 04 / 00. Rate to include cost of Excavation,PCC,Brickwork,RCC works, Reinforcement,SW pipes, AC pipes,cowl,filling with aggregates cover slab,testing of the septic tank etc., complete as per drawing.	1	No		
49	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75 mm bed of dry brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	110	Sqm		
50	Providing and laying non – pressure NP2 class( light duty ) RCC pipes with collars jointed with stiff of mixture of CM 1: 2 including testing of joints etc., complete.				
a)	250 mm dia RCC pipe	240	Rm		
b)	600 mm dia RCC pipe	120	Rm		
51	Providing and fixing 12 mm thick and 150 mm wide pelmet waith 25 mm dia aluminium curtain rod and brackets including fixing with 25 x 3 mm MS flat 10 cm long and plugs etc., complete in second class teak wood for all doors and windows.	70	Rm		
52	Supplying and fixing wooden frame (3" x 2") for fixing AC unit in brick wall. The size of wooden frame shall be 27" x 19". Rate to include the cost of wooden frame, labour charges for making opening and fixing the wooden frame with existing walls.	8	No		
53	Supplying and fixing precast RCC jolly of 50 mm thick of size 450 x 300 mm as per standard specification. Rate to include cost of RCC jolly and labour charges for fixing in position etc., complete.	50	No		
54	Supplying and fixing sintex doors (single leaved door) at site of work with frames including fittings all as per standard specifications. Rate to include cost of labour and fittings etc., complete.	12	Sqm		
55	Supplying and fixing sintex tank at site of work for storing water.Rate to include cost of tank and other incidental charges etc., complete.				
a)	500 Litres capacity.	2	No		
b)	1000 Litres capacity	2	No		

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<b>S. No</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Amount</b>
56	Rigging borewell of 165 mm dia with high speed rig to a maximum depth of 300 ft in all kinds of soils, soft rock, hard rock including conducting yield test with air compressor and suitable pumps for a period of not less than an hour as directed by the Engineer in charge.	900	RF		
57	Supplying and erecting 150 mm PVC casing pipe of approved quality with collars, couplings etc., to the required depth.	72	RM		
58	Supplying and erecting 7.5 HP multistage submersible pump and motor of approved make with all accessories at a required depth.	3	No		
59	Supplying and erecting 50 mm dia GI suction pipe (medium) in the borewell to the required depth including all specials and jointing materials.	210	RM		
60	Supplying and laying water line with 50 mm dia PVC pipe of approved make and quality including all specials, jointing materials, excavation of trench and refilling the same after laying.	150	RM		
61	Supplying and installation of 2000 litres capacity of PVC water tank of approved make and quality over the masonry platform raised 300 mm above ground level, finishing with cement mortar and providing 3 Nos. of 20 mm dia brass bib cock including connecting water lines.	2	No		
<b>VALUE FOR I PART ' A ' CIVIL WORK : RS</b>					

S. No	Description	Quantity	Unit	Rate	Amount
<b>I PART ' B ' STRUCTURAL WORK</b>					
1	Supplying raw steel, fabricating steel work and transporting to erection site and erection of fabricated steel work including all handling conveying, loading, assembling, hoisting, erecting in position and site welding and / or bolting wherever required & alignment of the structures as per drawings & specifications. Rate to include cost of raw steel, fabrication, bolts & nuts, welding, tools & plants, labour etc. painting two coats over steel works with synthetic enamel paint of BHEL approved make & color, brushing to give an even shade including cleaning the surface of all dust, dirt & other foreign matters, cost of paint & scaffolding charges all as per standard specifications.	40	Mt		
2	Supplying at site of work Asbestos corrugated cement sheet as required, hoisting and fixing in position for roofing, gable end, side sheeting etc. including AC specials such as louvers, barge boards etc. on steel purlins and fixing them in position with necessary crank bolts, bitumen & GI washers etc. complete as per drawing, specifications and instructions of engineer in charge. Rate to include cost of AC sheet, labour and other incidental charges etc., complete. Payment will be made for laid area of roof only.	4650	Sqm		
3	Providing corrugated fiber glass reinforced polyester translucent roof light sheets of 3 mm thickness and fixing to match the GI / AC sheeting with necessary GI bolts, nuts and washers etc. complete.	160	Sqm		
<b>VALUE FOR I. PART ' B ' STRUCTURAL WORKS RS</b>					

S. No	Description	Quantity	Unit	Rate	Amount
<b>I PART ' C ' ELECTRICAL WORKS</b>					
1	Supplying and wiring with 1.5 Sq mm PVC insulated unsheathed copper conductor cable in rigid PVC conduit pipe for lights / fans with one number of 5 amps flush type switch.	250	Point		
2	Supply and wiring with 1.5 Sqmm PVC insulated unsheathed copper conductor cable in rigid PVC conduit pipe for bell with one number of 5 amps flush type bell switch, including supply of calling bell of standard quality to be approved by Engineer- in- charge	10	Point		
3	Supplying and wiring with 2.5 Sqmm PVC insulated copper unsheathed stranded conductor cable in rigid PVC conduit pipe 15 amps combined 5 amps ( 6 pin) flush type two – in – one switched socket with indicator on a suitable surface mounting PVC box with continuous run of number 14 GI wire earthing (Anchor / GPL / Ellora plate switched socket to be used ).	36	Point		
4	Supplying and wiring 1.5 Sqmm PVC insulated copper unsheathed conductor cable in rigid PVC conduit pipe for 5 amps 3 pin switched socket of plate switch type with indicator on a suitable surface mounting PVC box with continuous run of number 14 GI wire for earthing ( Anchor / CCPL / Ellora plate switch type switched socket to be used).	42	Point		
5	Supply and fixing of a single 4 feet 40 w tube light fitting on ceiling / wall with assembly, putty, electronic choke and starter of standard quality to be approved by Engineer in charge	160	No		
6	Supply and fixing of water tight bulk – head fitting with guard and glass suitable for and with 60 watt lamp.	16	No		
7	Supply and fixing of 1400 mm sweep ceiling fan with 600 w anchor classic / supreme / rider make electroniregulator.(Bajaj,Kaithan,CGL)	50	No		
8	Supply and fixing of 600 mm exhaust fan.(Bajaj,Kaithan,CGL)	20	No		
9	Supplying and laying of two runs of 4 Sq.mm pvc insulated PVC sheathed standard copper conductor cable in rigid PVC conduit pipe using clamps on wall & continuous run of 14 SWG wire for earthing. The pipe should be concealed wherever necessary.	1400	Rm		

S. No	Description	Quantity	Unit	Rate	Amount
10	Supplying and fixing of 3 phase Energy metre of suitable capacity of 250A, with suitable whether proof meter box made out of 18 SWG of size 50 x 40 x 20 cm or near about to accommodate meter with peep through glass for meter reading, hinged doors with locking arrangements and meter card pockets. The meter box should be fixed as per instructions of engineer in charge and necessary painting shall be done as per IS including Supplying and fixing of 50 cm length 50 x 50 x 6 mm MS angle on wall with necessary hole with suitable bolt & nut for fixing service wire for the above meter.	4	Set		
11	Supply and fixing of 415V,250A switch fuse units housed in MS sheet enclosure as per relevant standard and shall be of wall mounting type, secured over a 25 x 6 mm painted angle iron frame as per IS standard.	4	No		
12	Supply and fixing of 32 A , 3 phase ,7W, TPN distribution board as per relevant standards with 32 A HRC backlite fuse unit block. Distribution board shall be mounted in a enclosure with hinged door and shall be provided with R,Y,B indicators, Volt meter with selector switch. The whole assembly be fixed on 50 x 50 x 6 mm painted angle iron frame embedded on wall.( more details ref specification ).	4	No		
13	Supply and fixing of 32 Amps. 3 phase lighting distribution board, having 1 number 32 amps TPN MCB for incomer with 9 numbers of 5A single pole MCB and 3 number of 16A single pole MCB. Light Distribution board shall be made out of 2.5 mm sheet as per relevant standard, and fixing arrangement shall be as mentioned above.	4	No		
14	Supply and fixing of 230V, 16 A 3 pin plug and socket with 16A MCB mounted in a metallic box and shall be of wall mounting type as per relevant standard.	4	No		
15	Supply and erection of earth electrode using 50mm dia, 2.50 metre long GI pipe with alternate layer of salt and charcoal and with masonry chamber and RCC cover, and using 50 x 6 mm GI flat welded on the 50 mm pipe with a provision on GI flat for terminating the earthing conductor and in general conforming to is 3043.	4	Set		
16	Supply and laying of number 8 SWG GI wire for earthing.	400	Rm		

S. No	Description	Quantity	Unit	Rate	Amount
17	Supplying and fixing 1x 250W HPSV lamp fittings of approved brand outside the building including mounting brackets, wiring, providing individual switches etc., complete. Rate shall include cost of fitting with HPSV lamp 1 x 250W, control gears, angle frame/pipes for fixing the lights, labour charges for making holes and matching the same with existing wall as directed by Engineer in charge.	24	No		
18	Supply and fixing of 1000W halogen lamp fittings of approved brand outside the building including mounting brackets, wiring, providing individual switches etc., complete. Rate shall include cost of fitting with Halogen lamp 1 x 1000W, control gears, angle frame/pipes for fixing the lights, labour charges for making holes and matching the same with existing wall as directed by Engineer in charge.	24	No		
<b>VALUE FOR I PART ' C ' ELEC. WORKS : RS</b>					
<b>TOTAL VALUE FOR I PART (A+B+C):RS.....</b>					

SIG. OF TENDERER