



Issued to agency:
BHARAT HEAVY ELECTRICALS LIMITED
 RAMACHANDRAPURAM, HYDERABAD-32
 FACTORY CIVIL ENGINEERING DEPARTMENT

SCHEDULE- A

PRICE BID

Tender Notice No:
 HY/FCD/OT-6/2008-09 , Dt: 07.08.08

Item no: 1

Name of work: Civil works for " New Test Plant facility" in O2 block

S.No	Description	Qty	Unit	Rat in Rs	Amount (Rs)
Part I - Civil works.					
1a	Earth work in excavation in all soils by mechanical means (Hydraulic Excavators) / manual means in foundations trenches or drains (not exceeding 1.5m in width or 10 Sq.m on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed , within a lead of 50M.	1325.00	Cu.m	103.40	137005.00
b	----do---- up to First additional depth of 1.50 M to 3.00 M.	45.00	Cu.M	105.73	4757.85
c	----do---- up to second additional depth of 3.01 M to 4.50 M.	45.00	Cu.M	108.06	4862.70
d	----do---- up to third additional depth of 4.51 M to 6.00 M.	257.00	Cu.M	110.39	28370.23
2 a	Earth work in excavation by mechanical means (Hydraulic Excavators) / manual measn over areas (exceeding 30 cm in depth , 1.5 m in width as well as 10 Sq.m on plan) including disposal of excavated earth , lead upto 50 m and lift upto 1.5 m, disposing earth to be levelled and neatly dressed for Hard Rock (Blasting prohibited).	12.00	Cu.M	325.25	3903.00
b Beyond 5.50 M to 7.50 M depth	24.00	Cu.M	390.00	9360.00
3	Providing and laying in position cement concrete of specified garde excluding the cost of centering and shuttering including consolidation by vibrations for all works up to plinth level with 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate of 20 mm nominal size).	449.00	Cu.M	2449.00	1099601.00
4	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering ,shuttering and reinforcement ,including consolidation by vibrations for all works up to plinth level with 1:1½ :3 (1 cement : 1½ coarse sand : 3 graded stone aggregate of 20 mm nominal size).	1624.00	Cu.M	3732.00	6060768.00
5	Centering and shuttering including strutting, propping etc; and removal of form work, for columns, pillars,peirs,abutments,machine foundations, posts and struts.	4455.00	Sq.M	180.40	803682.00

S.No	Description	Qty	Unit	Rat in Rs	Amount (Rs)
6	Reinforcement for R.C.C. work including straightening , cutting , bending , placing in position and binding grills with binding wire all complete by cold twisted deformed bars.	133.40	M.T	42700.00	5696180.00
7	Providing and laying in position specified grade, of Reinforced cement concrete excluding the cost of centering,shuttering and reinforcement - all work up to plinth level with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) -	414.00	Cu.M	3359.60	1390874.40
8	Granolithic topping of 25 mm thick using 1 cement 1 granite chips of 10mm down graded laid over base concrete when it is green conditions and ironite finishing 12mm thick using a mix of 50Kg of ironite , 200 Kg of cement and 0.30 Cu.m of granite metal 6mm down graded including cost of form work , curing etc. complete.	1400.00	Sq.m	428.50	599900.00
9	Flooring in 25 mm thick using 1:1 granolithic flooring (1 cement : 1 parts of granite stone chips of 3 to 10 mm guage (no sand) first sort including neat finishing, curing, cost of materials etc; complete.	1170.00	Sq.m	308.45	360886.50
10	Filling with available excavated earth (excluding rock) in trenches , plinth , sides of foundations etc. in layers not exceeding 20 cm in depth , consolidation each deposited layer by ramming and watering , lead upto 50 m .	601.00	Cu.M	45.70	27465.70
11	Conveyance of excavated spoil up to a lead of 2 Kms, including loading , unloading and spreading etc. complete as directed by Engineer- in- charge.	1071.00	Cu.M	56.41	60415.11
12	Brick work with FPS bricks of class designation 75 in superstructure above plinth level up to ground floor in all shapes and sizes in cement mortar 1:6.	105.00	Cu.M	2357.40	247527.00
13	Coursed rubble masonry in second sort with hard stone in foundation & plinth with cement mortar 1:6(1 cement :6 coarse sand)	34.00	Cu.M	1913.10	65045.40
14	Plastering in CM 1:6 , 20 mm thick to internal and external surfaces of walls including the cost of all materials , labour , curing etc, complete - Upto 10M level.	1386.00	Sq.m	95.10	131808.60
15	Cement Plaster to ceiling /walls with 12mm thick cement plaster finished with a floating coat of neat cement of mix 1:3 (1 cement : 3 fine sand) . Upto GF	4485.00	Sq.m	107.80	483483.00
16	Plastering over roof slab in CM 1:4, 20mm thick mixed with water proofing compound, Make: "Sika" @ 3% by weight of cement as per manufacturer's specification, curing as directed. Rate quoted shall include finishing, cost of all materials and labour etc., complete. (Cement =7.69 kgs/sq.m x3% WP@ Rs 20.00 per kg=Rs 4.61) upto 10 m height.	1877.00	Sq.m	115.06	215967.62

S.No	Description	Qty	Unit	Rat in Rs	Amount (Rs)
17	Supplying and laying of vitrified tiles of brighter shades and marble design of Premium Quality (1st quality) in required texture, design and colour, for flooring /skirting /cladding using vitrified tiles of size 600 x 600mmx8 mm thick of approved make. It includes cost of cutting, champering of tiles to required size, with base of Conmax C - 500 tile adhesive for fixing tiles on existing mosaic/cement flooring, jointing the tiles with colour tint etc. complete as directed by Engineer-in-charge. The rate quoted shall include cost of all materials, labour, adhesives, colour tint material, leads and lifts etc. complete. Amount will be paid on the basis of measurement of the area of finished work only. It also includes surface preparation of existing ceramic floor giving necessary slopes, cleaning joints and grouting joints with pigmented additives to match shade of the tile, making pockets for electrical, communication, network cables etc. complete as directed by Engineer-in-charge. Amount will be paid on the basis of measurement for finished work only.	200.00	Sq.m	950.00	190000.00
18	Supplying and fixing aluminum door with single shutters made out of new anodised aluminum box section of size 44.50x 47.50x 2.00mm for verticals, top and middle rails and 101.60x44.50x2.00mm for bottom rail inclusive of supply and fixing of all aluminum fixtures and fittings such as handles 2 nos, 1 No of tower bolt 12mm dia 200mm long, 1 No of hydraulic door closure of IS specification , 3 nos of 4" long(100mm) but hinges, stopper 1 No and suitable locking arrangement etc. complete . Wherever members are joined wooden runners are to be inserted in the box section for taking hinges, tower bolts, handles, hydraulic door closure and providing necessary rubber bedding for closing of door shutters all as directed by Engineer-in - charge. The rate shall include cost of door frame using aluminium box sections of size 101.60x44.50x2.00 mm. etc. complete all as directed by Engineer in charge .	43.00	Sq.m	2918.40	125491.20
19	Providing & Fixing of top fixed, side hung of NCL Secular windows fabricated from Roll formed section made of pre painted steel (Base steel as per IS 513 of 0.6 mm thick, 'D' quality, galvanized as per IS 277 with zinc 150 GSM / Sq. Mtr). Section for shutter should be of 46 x 46 mm, external frame should be of 46 x 52 mm, section for glass beading should be of 18 x 25 mm & center mullion should be 46 x 70 mm. The sections to be cut to length, meter joined with corner bracket. Centre mullions are to be fixed using mullion cap. Handle made of high grade aluminium powder coated & with nylon receiver & glazed with 4 mm thick, modi float glass. Gasket made of E.P.D.M. Corner brackets made of C.R.C.A with zinc phosphating. Mullion caps made of glass filled nylon. The above frames should be fixed to the concrete / masonry walls by means of self expanding screws.	67.50	Sq.m	3000.00	202500.00

S.No	Description	Qty	Unit	Rat in Rs	Amount (Rs)
20	Fabrication and fixing M.S. Angles in the concrete with 10mm dia lugs welded to the M.S. Angle (Strl. Steel, electrodes and gases required for the work will be issued on free of cost by BHEL at their stores).	36.00	One MT	3500.00	126000.00
21	Casting and placing in position of R.C.C cable trench covers of 75 mm thick in mix of 1:1.5:3 using 20 mm down graded metal including cutting, welding of Angle iron frame, cost of MS reinforcement as specified including cutting bending , binding wire, spreading of Ironite powder at 2 Kg / Sq.m, neat finishing ,cost of labour, etc complete as directed. (MS angles, electrodes only will be issued on free of cost by BHEL at their stores).	160.00	Sq.m	1002.00	160320.00
22	Providing and fixing in true horizontal level 600 mm x 600mm false ceiling system manufactured by M/s. Armstrong World Industries using DUNE SUPREME RH 99 MICROLOOK EDGE WITH SILHOUETTE GRID, using hot dipped galvanized steel section, rotary stitched main tee of size 15mm x 42 mm web height, having 0.36 mm gauge at every 600 mm centre to centre maximum and rotary stitched cross tee of size 15 mm x 42 mm, having 0.33 mm gauge at every 600 mm. c/c. and wall angle of size 19 x 19 mm., having 0.35 mm gauge fixed to the periphery of the wall. The above grid is suspended at every 600mm c/c. in both directions using 2.0 mm. thick pre-straightened GI wire, and laying Dune Supreme Microlook Edge ceiling tiles manufactured by M/s. Armstrong World Industries, of size 600mmx600mmx15mm having NRC 0.50, Light reflectance of >85% (WT), thermal conductivity k = 0.052-0.057 W/m0K, Humidity Resistance of 99% (having LIFETIME GUARANTEE against SAG), having Fire Performance CLASS O / CLASS 1 (BS 476), surface having 3 coats of white paint - crisp finely granulated with microperforations, back of the tile duly sanded and finished with a coat of protective paint over the formed grid and complete in all respects. Boards, where light fixtures to be fixed shall be handed over to Department. Make: Armstrong	200.00	Sq.m	1130.00	226000.00

S.No	Description	Qty	Unit	Rat in Rs	Amount (Rs)
23	Providing, designing, cutting, bending and fixing Aluminium composite cladding of 4 mm thick of approved make (ALUCO PANEL/ALCO BOND/ALEX PANEL) on external façade of size as shown with the water tight system either curved or straight on concrete/masonry surfaces skin materials 0.25 mm thick aluminium sheet (300 5 H6) cover material natural polyethylene aluminium cladding panel of approved colour /shade fixed with excluded aluminium basis frame (50x25x1.5 mm) angle cleats , weather sealants, rivets, GI brackets all as approved, using suitable chemical/anchor bolts on structural steel works including necessary accessories complete in all respects,where ever level difference is shown dummy structural steel backup frame shall be provided including the finished surface shall be protected with 80 microns self adhesive peel of film with TWO layer of white and black tested to withstand atleast 6 months exposure to local weather conditions, without losing the original peel of characteristic or causing stains or other damages with silicon sealant of Dow carning 789 or Wacker EL 305 d including all scaffolding and labour charges etc.complete for finished item of work.	170.00	One sq m	2310.00	392700.00
24	Painting with oil bound distemper 2 coats to new plastered surfaces of walls, ceiling etc., complete. (O.B.D only will be issued free of cost by BHEL at their stores).	1246.00	Sq.m	17.88	22278.48
25	Applying Snowcem/exterior emulsion paint 2 coats to external new plastered surfaces including curing etc., over a coat of primer (paint will be issued free of cost by BHEL at their stores).	600.00	Sq.m	17.88	10728.00
26	Supplying , laying and jointing 80 mm nominal bore GI pipe medium grade properties and weight as per IS 1239 , ISI marked with GI fittings, including cost of pipe and its fittings, labour charges, testing, etc., complete.	20.00	RM	458.15	9163.00
27	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement :2 fine sand) including testing of joints etc. complete - 300mm dia R.C.C pipe.	120.00	RM	338.75	40650.00
28	Supply and aluminium partition with new anodised box - section of size 101.60 X 44.45 X 2 mm for verticals,Top & Horizontal and 63.50 X 38.10 X 2 mm for inter mediate horizontal at spacing suiting to the site requirements as approved . Wherever doors are coming wooden runners are to be provided into box section. This includes grouting of the frame to the flooe properly fixed at ends to walls , cost of aluminium section , labour etc; Complete .(The door opening shall be deducted for payment).	195.00	One sq.m	1316.00	256620.00

S.No	Description	Qty	Unit	Rat in Rs	Amount (Rs)
29	Supply & fixing 5.5 mm thick plain / ground glass to the aluminium frame with rubber beeding screwless snap on clips etc. complete	83.00	One sq.m	668.00	55444.00
30	Supply & fixing with new 8 mm thick particle board one side laminated of approved brand (Eco board) and shade for wall panelling on the above wooden frame work and also for window, cup board, Imets, podiums, counters, stools, racks, boxes etc. with necessary suitable fixtures like brass hinges, brass door handles, stoppers etc. complete as directed by Engineer Incharge. Doors shall be fixed by removing old plywood and fixing with new 4mm plywood. 1mm laminated sheet shall be fixed on both sides and faces of thickness of doors. Design and colour of the laminated sheet shall match with the wall panlling of Eco board. Locks will be supplied by BHEL and fixing shall be made by Agency. The rate quoted shall include cost of all labour, materials such as particle boards, wooden reapers, nails, screws, sliding rollers/bearings, fevicol etc. complete.	112.00	One sq.m	966.00	108192.00
31	Cement concrete flooring C.C 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate) 50 mm thick with 20 mm nominal size stone aggregate finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc., complete.	300.00	One sq.m	241.20	72360.00
32	Providing and fixing stainless steel tubular railings (1.2 mm thick) 0.90 M height as per design and drawings using top rail(2") , vertical pipe(1.5"), Horizontal pipe (0.63") along with 12 mm thick glass with glossy finsh etc., as directed by Engineer-incharge.	99.00	One RM	3300.00	326700.00
33	Etching of balcony/ stair case glass panels of size 135 cm x 46 cm (53"x18") with boarder of 12 mm width alround the glass and BHEL emblem as directed by the Engineer- incharge. The rate quoted shall include cost of etching of glass panels, transportation, labour etc., complete.(payment for supply and fixing of glass for 12 mm thick glass will be paid under above item)	50.00	One sq.m	860.00	43000.00

S.No	Description	Qty	Unit	Rat in Rs	Amount (Rs)
34	Demolishing brick work manually / by mechanically means including stacking of serviceble material and disposing off unserviceble materials within 50 meters lead as per directions off Engineer-in-charge. - in cement mortar	61.00	Cu.M	310.75	18955.75
35	Demolishing R.C.C. work manually / by mechanically means including stacking of steel bars and disposal of unserviceable materials within 50 metres lead as per direction of Engineer - in - charge .	4.00	Cu.M	537.55	2150.20
36	Dismantaling doors, windows and clerestory windows (steel & wood) shutters including chowkhats , architrave , holdfasts etc. complete and stacking within 50 meters lead.	68.00	Sq.M	75.35	5123.80
37	Dismantling structural steel work in built up sections in angles, Tees , flats & Channels including gusset plates, bolts ,nuts, by gas cutting ,dismembering, including, weighing, conveying to specified places upto a lead of 2 KM and handing over to divisional stores for following items of work.	5.00	MT	890.11	4450.55
38	Dismantling M.S. partitions (Weldmesh, glazed or panelled) of standard size 1.20 M x 2.40 M or 1.20 x 3.30 M including M.S. Posts and transporting and stacking the materials for reuse etc., complete as directed by the Engineer-in-charge (The rate shall include for removing glass panes before dismatling glazed partitions and stacking glass panes)	80.00	sq.m	116.67	9333.60
39	Removal of MS scrap including MS packing strips etc. inside Factory area as directed by the Engineer In Charge.	5.00	M.T	381.00	1905.00
40	Supply & fixing of 18 mm thick best quality approved colour and design machine cut mirror polished granite slabs in required sizes for counter wash basins, floorings, vanity counter, claddings, facias etc. including cutting, champering, rounding and mirror polishing etc. complete as directed. Cost of granite slabs shall be Rs. 1600/- per Sq. m and granite slabs of required design and colour will be selected by department.	17.00	sq.m	3070.92	52205.64
				Part-I sub-total : Rs	19894134.33

S.No	Description	Qty	Unit	Rat in Rs	Amount (Rs)
Part II - Structural works.					
1	Supplying and fixing of Tracdek Hi-rib single skin colour galvalume / Zinalume sheets of 0.5 mm thick. One Meter width and length upto 12 M with Factory cut and fixing to the roof shall be crest fixed to roof purlins with number 12-14 x 55 mm long polymer coated galvanized hex-head self drilling screws with integral washers and EPDM seals (4 fasteners per support) for sheet etc., compete as directed. (Including cost of galvalume sheets). - for roofing/ Cladding - Coloured	300.00	sq.m	720.00	216000.00
2	Supplying and fixing plain PVC pipe of 200 mm dia of approved quality with specials, accessories and approved sealing /jointing compound on the exterior of the inserted portion of the fitting and fixing in position and joining to MS gutters , including cost of all materials ,sealing compound ,labour etc., for all heights complete	25.00	One RM	567.00	14175.00
3	Providing and fixing 1mm thick MS sheet slidding - shutters with frame and diagnol braces of 40x40x6 mm angle iron, 3 mm gusset plates at the junction and corner 25 mm dia pully, 40x40x6 mm angle & T iron at the top and bottom respectively including applying a coat of primer of approved steel primer.	18.00	Sq.M	2018.70	36336.60

Part-II sub-total : Rs **266511.60**(Part-I + Part-II) **Grand total: Rs 20160645.93**

Total: Rupees Two Crores one lakh sixty thousands six hundred and forty six only.

I / We have quoted% above [] / below [] (tick the relevant) for the rates given above.

% in words:

Name of the Contractor :

Signature of the Contractor

Accounts Representative

Opening officer