



BHARAT HEAVY ELECTRICALS LIMITED
RAMACHANDRAPURAM::HYDERABAD::32
FACTORY CIVIL DEPARTMENT

Revised Price bid

SCHEDULE- A

Tender Notice No:

PRICE BID

HY/FCD/OT-22/2009-10 , Dt:- 01.02.2010

Item no : 02

Name of work: Construction of New GT Assembly Bay for Fr-5 & Fr-9E (84mx30m), Rotor assembly Bay (84mX30M) and Annexe building (8mX84m) at GT Complex

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
	Part-I Civil works				
1a	Earth work in excavation in all soils by mechanical means (Hydraulic Excavtors) / 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.	4847.00	Cu.m	103.40	501179.80
b	----do---- up to First additional depth of 1.50 M to 3.00 M.	1204.00	Cu.m	122.30	147249.20
c	----do---- up to second additional depth of 3.01 M to 4.50 M.	1014.00	Cu.m	141.20	143176.80
2	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).	1486.00	Cu.M	2449.00	3639214.00
3	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering ,shuttering, finishing and reinforcement ,including consolidation by vibrations for all works up to plinth and all levels with 1:1½ :3 (1 cement : 1½ coarse sand : 3 graded stone aggregate of 20 mm nominal size).	903.00	Cu.M	3732.00	3369996.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
4	Providing and laying in position ready mix concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 25 KM having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per ID: 9103 to accelerate/retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge. M 25 grade Reinforced cement concrete by using 410 kgs of cement per cu.m of concrete. All works upto floor V level. as per IS 456: 2000 for all concrete works upto all levels.(cement cost considered in the estimate is Rs 144.00 per bag. If there is increase or decrease proportionate reimbursement/recovery cost will be done by BHEL)	1880.00	Cu.m	4162.80	7826064.00
5	Earth work in excavation by mechanical means (Hydraulic Excavators) / manual means 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).	869.00	Cu.M	325.25	282642.25
6	Coursed rubble masonry in second sort with hard stone in foundation & plinth with cement mortar 1:6 (1 cement :6 coarse sand)	180.50	Cu.M	1913.10	345314.55
7	Centering and shuttering including strutting, propping etc; and removal of form work, for columns, pillars,peirs,abutments,machine foundations, posts and struts.	4723.00	Sq.M	180.40	852029.20
8	Reinforcement for R.C.C. work including straightening , cutting , bending , placing in position and binding grills with binding wire all complete by cold twisted bars.	258.00	M.T	42700.00	11016600.00
9a	Conveyance of excavated spoil up to a lead of 2 Kms, including loading , unloading and spreading etc. complete as directed by Engineer- in- charge.	2544.00	Cu.M	56.41	143507.04

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
b	Extra for Conveyance of excavated spoil beyond a lead of 2 Kms and up to a lead of 3 Kms, including loading , unloading and spreading etc. complete as directed by Engineer- in- charge.Additional to 9.a	225.00	Cu.M	6.91	1554.75
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 50.00 m and lift upto 1.50 m.	4360.00	Cu.M	45.70	199252.00
11	Earth work in surface excavation not exceeding 30cm in depth but exceeding 1.5 m in width as well as 10 Sq.m on plan including disposal of excavated earth upto 50 m lift upto 1.5m, disposed soil to be levelled and neatly dressed.	1732.00	Sq.m	20.74	35921.68
12a	Providing and laying in position specified grade, of Reinforced cement concrete excluding the cost of centering,shuttering, finishing and reinforcement - all work up to plinth and all levels with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size).	310.00	cu.m	3359.60	1041476.00
b	Providing and laying in position ready mix concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 25 KM having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C from trasit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixures in recommended proportions as per ID: 9103 to accelerate/retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge. M 20 grade Reinforced cement concrete by using 320 kgs of cement per cu.m of concrete. All works upto floor V level. (cement cost considered in the estimate is Rs 144.00 per bag. If there is increase or decrease proportionate reimbursement/recovery cost will be done by BHEL)	722.00	Cu.m	3856.80	2784609.60

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
13	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.	397.00	Cu.M	2357.40	935887.80
14	Reinforced brick work in CM 1:4 (1 cement : 4 coar sand) with FPS bricks of class designation 75 in super structure above plinth upto floor 5 level in all shapes and size including providing and placing in position 2 nos. 6 mm dia MS bars at every thrid course of brick masonry.	26.00	Sq.m	350.60	9115.60
15a	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 10.00 M level.	3258.00	Sq.m	95.10	309835.80
b	Cement Plaster to ceiling / internal walls with 12mm thick cement plaster finished with a floating coat of neat cement of mix 1:3 (1 cement : 3 fine sand) .	1154.00	Sq.m	107.80	124401.20
c	Plastering in CM 1:6 , 12 mm thick to internal surfaces of walls including the cost of all materials , labour , curing etc, complete -Upto 10.00 M level.	280.00	Sq.m	67.65	18942.00
16	Supply and fixing of top fixed, side hung of NCL Seccolor Ajantha windows & Ventilators 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 120 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 5 mm thick, Modi/Saint Gobain float glass. Gasket made of E.P.D.M. Corner brackets made of C.R.C.A with zinc phosphating. Million caps made of glass filled nylon. The above frames should be fixed to the concrete / masonry walls by means of self expanding screws.Approximate size of windows 1.30mx0.9m and 3.00mx2.10m - Double shutter without guard bars(grills)... Excise duty/VAT inclusive .Service tax extra as applicable.	412.00	Sq.m	4046.00	1666952.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
17	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.	5160.00	Sq.m	485.00	2502600.00
18	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).	255.50	Sq.m	333.00	85081.50
19	Providing and Laying Damp-Proof Course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse Sand : 4 Graded stone aggregate 12.5 mm nominal size).	130.00	Sq.m	144.15	18739.50
20	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.	336.00	Sq.m	950.00	319200.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
21	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).	3.50	MT	3500.00	12250.00
22	Fabrication and fixing inserts in concrete wall with lugs of required dia welded to the insert plates.(St. Steel,electrodes and gas required for work will be issued on free of cost by BHEL at their stores)	12.00	MT	3500.00	42000.00
23a	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.	372.00	RM	458.15	170431.80
b	----- do -for 25 mm dia pipe -----	120.00	RM	156.85	18822.00
24a	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 - 250mm dia R.C.C pipe.	117.00	RM	258.20	30209.40
b	-----do ----- for 300 mm dia RCC pipe.	252.00	RM	338.75	85365.00
c	-----do ---- for 450 mm dia RCC pipe.	260.00	RM	499.55	129883.00
25	Applying Snowcem/interior emulsion paint 2 coats to external new plastered surfaces including curing etc., over a coat of primer (only exterior paint will be issued free of cost by BHEL at their stores).	1888.50	Sq.M	29.90	56466.15
26	Applying two or more coats of distemper with oil bound washable distemper of approved brand and manufacture to given an even shade including preparation of the surface, cost of all labour, material and other incidentals including priming coat with cement primer.	1709.50	Sq.m	41.60	71115.20
27	Flooring in 25mm thick using 1 cement and 3 parts of granite stone chips of 3 to 10mm gauge (no sand) ellis pattern first sort including neat finishing , curing,cost of materials etc; complete.	550.00	Sq.m	196.00	107800.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
28	Supply,providing and fixing of Hollow metal Steel door single/double door of size 1.50mx2.10m at all levels from ISO 9001-2000 certified Manufacturer.Fully flush type of 46 mm thick Pressed Galvanized:Door frame shall be single rebate profile of size 143 x 57 mm with bending radius of 1.6 mm having 1.60 mm thick galvanized steel sheet. Steel door shutter of 46 mm thick, fully flush, double skin door shall be manufactured from 1.2 mm thick galvanized steel sheet. The infill material shall be resin bonded honey comb Kraft paper. Door frames and shutter shall be finished with Epoxy (35 microns DFT) of approved colour. Stainless steel double ball bearing butt hinges of size 101 x 89 x 3 mm thick,Panic latch Briton 378E with Mortise lock (ML 100P),half cylinder & ss D handle 254mm with rose (Briton 379E) with DDS Box Keeper. Concealed flush bolts for fixing on inactive shutter 300mm length of Ryobi make,Door closer Ryobi 8803std arm make,Single glazed Clear Vision Panel of size 200 x 300 mm having 5mm thick. Glass to be fixed with clip screws and glazing with one sideadhesive tape, including cost of all materials etc., as directed by the Engineer incharge.	49.00	Sq.m	6799.85	333192.65
29	Painting with bitumen paint 80/100 grade @ 1.2 kg/sq.m. for construction joints of flooring slab.	168.00	Sq.m	30.00	5040.00
30	Providing 12 mm thick mastic pad of 25mm depth in flooring construction joints including cost of all materials and labour	12.00	RM	10.40	124.80
31	Supply and fixing 12 x 25 mm thick teak wood reaper in the dummy of RCC flooring.	420.00	RM	14.00	5880.00
32	Providing and filling 12 mm width 10 mm depth with hot bitumen 30 / 40 grade at construction joints.	420.00	RM	25.00	10500.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
33a	Construction of Rectangular Manhole of inside dimensions 1.20 x 0.90 M including Earth work, bed concrete 1:2:4 – 200 mm thick, walls with C.R.S Masonry 2 nd sort in C.M (1:6) of 0.45 M width, plastering walls inside, out side with C.M (1:4) / 20 mm channeling, inside manhole neat finishing, fixing C.I Foot steps at 400 c/c. Fixing of Angle iron frame with 75 x 75 x 6 lugs welded in C.C 1:2:4 on top of wall of 8 Cms. Thick including back filling etc., complete. including casting & placing in position of RCC cover for the manhole. (M.S. Angle, will be issued free of cost). _ Manholes upto 1.50M to 2.00M.	27.00	Each	12000.00	324000.00
b	Same as above but with internal dimensions of 0.60 x 0.90 M upto 1.00 M depth.	18.00	Each	9000.00	162000.00
			Total of Part -I	39885622.27	
	Part-II Structural Steel Works				
1a	Fabrication of structural steel work including all materials going into the process of fabrication and forming and integral form of steel work together with all shop and site rivets and electrodes for site welding as necessary and all site connections comprising sag rods, floor beams, girders, bracings, trusses and frame work for fixed false ceiling and for movable false ceiling, purlins with channel / angles, MS flat supports including all connections as per detailed drawings connected steel works etc., cleats, gusset plates, all bolts, nuts, washers, base plates, anchor bolts as per detailed drawings, cutting, welding and painting 2 coats of red-oxide primer before erection etc., complete. The rate shall include painting 2 coat of Red-oxide as per IS specifications and all charges for handling, leading and loading at the fabrication yard. The rate excludes the cost of electrodes, gases and raw structural steel sections only which will be issued FREE of cost at BHEL stores.	1307.00	MT	7563.80	9885886.60

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
b	Erection of Steel work out lined in item No.1 above including the charges for handling, leading and stacking at site at approved locations prior to erection including all site rivetting, bolting, jointing and site welding where ever required.	1307.00	MT	3241.60	4236771.20
2	Painting at site of all structural steel work with 2 coats of aluminium paint / synthetic enamel paint of approved shade to trusses, columns, girders, bracings etc., with aluminium paint or synthetic enamel paint as required etc., complete. The required paint only will be issued free of cost by B.H.E.L at their stores.	1307.00	MT	596.50	779625.50
3 a	Supplying and fixing of Tracdek Hi-rib single skin galvalume 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 imported seals (4 fasteners per support) for sheet etc., compete as directed. (Including cost of galvalume sheets). - for roofing bare galvalume. Inclusive of Excise duty and VAT.(Service tax extra as applicable will be paid by BHEL on submission of valid documents).	5195.00	Sq.m	545.90	2835950.50
3 b	.. Do.. Cladding - Coloured	7218.00	Sq.m	672.40	4853383.20
4	Supply and fixing 9 mm thick pre-laminated particle board both side laminated exterior grade fixed to frame with rubber beading screw less snap on clips etc., complete.	120.00	Sq.m	534.00	64080.00
5	---- do ---- of 12 mm thick for doors with both sides laminated.	5.00	Sq.m	606.00	3030.00
6	Supply & fixing 5.5 mm thick plain / ground glass to the aluminium frame with rubber beeding screwless snap on clips etc. complete	65.00	Sq.m	668.00	43420.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
7	Supply & Installation of 0.5 mm thick colour galvalume sheet flashings hood / ridges/ triangular portion closers to require shape with self threaded screws etc. complete as directed.	14.40	Sq.M	900.00	12960.00
8	Supply and fixing North Light curves in required girth with 0.5 mm color galvalume sheets upto a length of 2.5 M having curved width upto 600 mm fixing to the steel members with self drilling / self stitching, fasteners at a maximum of 500 mm c/c along the length of capping, flashing etc., complete as directed by Engineer-in-charge including the cost of galvalume sheets, labour etc., complete.	588.00	Sq.M	720.00	423360.00
9	Providing and fixing barge boards in required girth (200 mm horizontal, 200 mm vertical) with 0.50 mm color galvalume sheets upto a length of 2.50 M, fixed to steel members with self drilling / self stitching fasteners at maximum 500 mm c/c along the length of capping, flashing etc., complete as directed by Engineer-in-charge including the cost of galvalume sheets, fixtures, fittings etc., complete.	53.00	Sq.m	800.40	42421.20
10	Supplying and fixing fiber reinforced acrylic roofing sheets 3 mm thick of light blue / white shade and of approved brand to match AC corrugations or galvalume tracdeck sheet corrugation including the cost of all materials such as GI 'J' bolts, nuts, washers etc., and fixing at all heights of Factory block complete as directed by Engineer-in-charge.	126	Sq.m	1302.00	164052.00
11	Supplying and fixing plain PVC pipe of 110 mm dia of 6 kg's/cm² 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	56.00	RM	200.36	11220.16

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
12	Supplying and fixing plain PVC pipe of 200 mm dia of 6 kg's/cm² 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	424.00	RM	640.17	271432.08
13	Teak Wood door with first class teak wood panelled shutter 35mm thick including supply and fixing aluminium lower bolts 300mm long 4m, martic lock and latch 1 Nos ,125mm aluminium handles 2 no.s , twin rubber stopper 2 no.s etc. complete.	3.60	Sq.m	2530.00	9108.00
14	Supply and fixing of teak wood door frame with 6mm of MS hold fast 50 X 6X 150 mm long as pointed with bitumen paint the sides of the frame coming into contact with masonry etc; complete.	0.08	Cu.m	52090.00	4167.20
15	Polishing two or more coats on new wood work with French spirt polish including a coat of wood filler as directed by Engineer-in-charge. Including cost of all materials.	9.00	Sq. m	75.60	680.40
16	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 finish etc., as directed by Engineer- incharge.	20.00	RM	3300.00	66000.00
17	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing and staircase railing including applying a priming coat of approved steel primer with M.S. tube.	9.30	M.T	60150.00	559395.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
18	Supply and fixing of Electrical operated rolling shutters , Shutter curtain made out of Aluminum Double Wall with 125 mm, ID " C " class Pipe side Guide 125x2.5 mm thick Top Bracket 6 mm thick, MS Plate and Aluminum Bottom Rail 3.0 mm thick and Angle support 40x40x5 mm thick Angle End to End, Hood Cover 1.00 mm thick, Electrical Gear Operated System with 1 No of Reduxion Gear Box, 1 No Cromption Induction Motor 3 Phase with Limit Switch and Reversible Switch make of Bharat Cutter. One coat of Red Oxide paint ,proper locking arrangement. confirming to IS 6248 including scaffolding and electrical (wiring including operating switch to operate the rolling shutter) cost of all materials. The measurement will be made on finished item of the work for payment.(The Shutter curtain is made out of Aluminum and all the other items are made out of MS) -approximate size 6mx6m ..VAT extra as applicable will be reimbursed by BHEL on production of valid documents.	207.00	Sq.M	8100.60	1676824.20
19	Supply & fixing of aluminium door with single shutter made out of anodised aluminium box section of size 44.50 x 47.50 x 2.00 mm for verticals, top and middle rails and 101.60 x 44.50 x 2.00 mm for bottom rail inclusive of supply and fixing all aluminium fixtures and fittings such as handles 2 Nos., 1 No., of tower bolt 12 mm dia, 200 mm long, 1 No. of hydraulic door closure of IS specification, 3 Nos. of 4" (100 mm) long butt hinges, stopper 1 No., suitable locking arrangement etc. complete. Wherever members are joined wooden runners are to be inserted in the box section for fixing hinges, tower bolts, handles, hydraulic door closure and providing necessary rubber beeding for smooth closing of door shutter. All as directed by Engineer-in-charge. The rate shall include cost of door frame using aluminium box section of size 101.60 x 44.50 x 2.00 mm, 12 mm thick toughened glass etc. complete.	11.00	Sq.m	4000.00	44000.00
20	Fabrication and fixing of M.S holding down bolts , threaded both sides including supply of nuts, washers etc., complete as directed. (M.S. rounds as per required size will be issued on free of cost at BHEL stores)	13.66	MT	26476.30	361666.26
21	Supplying and fixing of various sizes of MS bolts,nuts and washers confirming to IS 1367-1961 including cost of all materials, labour etc., complete (MR)	10.25	MT	49833.00	510788.25

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
22	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 intermediate 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 floor properly fixed at ends to walls , cost of aluminium section , labour etc; Complete .(The door opening shall be deducted for payment).	180.00	Sq.m	1316.00	236880.00
23	Fixing 52 Kg rails for various gauges at floor level including fixing side guide angle etc., complete with necessary clamps required for fixing rails in position and alignment, leveling as per B.I.S 7215-1974. (M.S rails, M.S. Angles, Strl. steel will be issued free of cost by BHEL at their stores).Including cost of clamps,bolts & nuts etc.,	58.50	MT	6000.00	351000.00
24	Erection and fixing to line, level and grade CR 120 kg/m Rail including supplying and fixing of special clamps, nuts washers etc., complete all as per drawings. Only special clamps for 120 kg Rail and crane rails will be issued free of cost by B.H.E.L at their stores. Special clamps and bases shall be welded at 450 mm centre to centre to approximately to the crane girders after aligning the rail. Alignment of crane rail shall be as per BIS code of practice (7215 / 1974). The rail shall be welded with suitable electrodes and shall conform to BIS specifications. The agency shall procure him self the electrodes specially required for welding the rail.	45.00	MT	10805.40	486243.00
25	Providing and fixing 2 mm thick polycarbonate sheets and anodised aluminium glazing bars together with accessories complete for North light glazing including cost of all materials, labour etc., complete.	1050.00	Sq.m	2266.15	2379457.50
26	supplying and fixing 24" aluminium turbo ventilators over self supported arched sheet roofing .	39.00	Each	11133.00	434187.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
27	Supply & fixing of Aluminium Composite Panel (ACP), 3 mm thick in required colours for interiors, consisting of two layers of aluminium skins of 0.20 mm thick sandwiching a thermo plastic core in continuous lamination process with PVDF Resin coating for interior grades ensuring long colour and no fungal attacks. Base framework with aluminium sections of size 50 mm x 25 mm x 2 mm shall be fixed over the brick work and the above composite panels shall be fixed to the framework as cladding. There shall not be any colour variation in panels. It includes cost of labour, materials, accessories, adhesives, scaffolding, wastages, transport, taxes, fixing into a neat finish in aesthetic point of view, without any undulations in facias. Any undulations in walls shall be maintained into one level and the required packing material shall be provided to maintain the neat finish. Payment will be made for finished work only.	144.00	Sq.m	3600.00	518400.00
28	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, k 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	100.00	Sq.m	1130.00	113000.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
29	Supply and fixing of required letters in required colours, sizes, three languages and numerals as embossing with aluminium composite panel (ACP) 3 mm thick in required colours for exteriors consisting of two layers of aluminium skins of 0.25 mm thick sandwiching a thermo plastic core in continuous lamination process with PVDC resin coating of exterior grades ensuring long colour and no fungal attacks. The above letters shall be fixed on back ground base panels as specified by Engineer-in-charge. Drawings with detailed measurements of letters, sizes are enclosed for reference. It includes cost of labour, materials accessories, adhesives, scaffolding, wastages, transport taxes fixing into a neat finish in aesthetic point of view, without any undulations in facias. Make ALEX PANELS. (payment will be measured for finished letter)	6.00	sq m	2991.00	17946.00
30	Supply and fixing of vertical blinds 100 mm in required colour along with channels, fabric bottom weights etc complete. The basic cost of the blinds shall be in the range of Rs. 70/- per S Ft, including rails and other fittings etc; The colour and design of the blinds will be selected by department within the specified cost. The agency shall procure the same.	30.00	Sq.m	800.00	24000.00
31	Wall paneling: Supply & fixing with new 12 mm thick particle board one side laminated of approved brand (Eco board) and shade for wall paneling on the wooden frame work (treated with termite and moisture resistant chemical) and also for doors, windows, cup board sliding shutters, pelmets, boxes etc. with necessary fixtures like brass hinges, door handles and stoppers etc. as directed by Engineer-In-charge. The rate quoted shall include of cost of all labour, materials such as particle boards, Steam beige beading, nails, screws, sliding rollers/bearings, fevicol etc. complete. Supply and fixing of frame work with second class teak wood scantlings of size 50 x 25 mm as verticals and horizontals, at an interval of 60 mm c/c shall be made for fixing the Eco board. Joints and corners shall be covered with Steam beige beading of suitable sizes with malamine polish complete in all respects. Make : Eco board	200.00	Sq.m	1600.00	320000.00
			Total Of Part -II	31741335.25	

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
	Part-III Sanitary Fittings				
1	Supply and fixing of new urinary pans, "Parry ware" make, ceramic, Model (Cat 0575)- "New Magnum Urinal" (590 mm x 400 mm) along with all accessories, C.P spreader brackets etc., along with partition for Magnum Urinal ceramic, 'Z' type brackets to be screwed to the wall at the bottom. Colour - Silky Off - White	17.00	Each	3933.00	66861.00
2	Supply and fixing with "Parry ware" make Cascade series wash hand basin of size 550 mm x 450 mm oval shape with counter top with centre tap hole, regular in colour with all accessories like brackets, screws etc., complete .	17.00	Each	2024.00	34408.00
3	Supply and fixing with "Parry ware" make Cascade pedestal ceramic wash hand basin of size 550 mm x 440 mm and pedestal size 705 mm height, with centre tap hole with all accessories like brackets, screws, PVC connections etc. complete. Colour: Silky Off - White.	13.00	Each	3000.00	39000.00
4	Supply and fixing of new "Parry ware" make Elite - European water closet of size 530 mm x 400 mm, with "P/S" trap including PVC Slimline Dual flush tank (Cistern) of size 475 mm x 318 mm (Code No. C8109), EWC standard seat cover (Cat C8071) with all accessories like Parryware flush kit suitable to the above flush tank, brackets, screws, connecting pipe from flush tank to EWC, PVC Connections etc. complete. Colour: Silky Off - White.	5.00	Each	2000.00	10000.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
5	Supply and fixing of new "Parry ware" make Indian Water Closet, Orissa pan of size 580 mm x 410 mm - Open rim (Code No. C0109) including PVC Slimline Dual Flush tank (Cistern) of size 475 mm x 318 mm (Code No. C8109) with all accessories like Parryware flush kit suitable for the above flush tank with all required accessories etc., complete. Colour: Silky Off - White.	13.00	Each	3000.00	39000.00
6	Supply & fixing of 6 mm thick mirror of approved quality "Modi float/Saintgobin glass", with 6 mm thick hard board back and with best quality teak wood frame (design beading) all round the mirror including necessary clamps, polishing to the beading, cost of all materials etc. complete.	26.00	Sq.m	1445.00	37570.00
7	Providing and fixing shutters along with frames for toilets that are 30 mm thick factory made PVC rigid foam paneled, door and shutters manufactured by M/s. Rajashri made from M.S. tube, 19 gauge thick, size 19x19mm for styles and 15x15mm for top and bottom rails, covered with heat moulded PVC "C" channel of 5mm thick sheet and 30x50mm wide for styles and 5mm thick and 75mm wide PVC sheets for top rail and bottom rail either side and 5 mm thick, 20mm wide cross PVC sheet as gap insert for top rail and bottom rail, paneling of 5mm thick PVC sheet fitted with M.S. frame welded / sealed to the styles and rails with 5x30mm PVC sheet beading on either side and joined together with solvent cement adhesive etc. complete in all respects as per direction of engineer in-charge fixed to frames. This includes providing brass hinges, brass aldrops, brass tower bolts, brass handles and brass door stoppers (For W.C. and bathroom doors).	9.60	Sq.m	1830.00	17568.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
8	Supply & fixing of PVC door along with frame of Syntex make in required size. The door frame made from extruded PVC sections in an overall size of 40 mm x 48 mm having multi chamber cross section with a maximum wall thickness of 2.5 mm \pm 0.3 mm duly reinforced with PVC to be mitre cut at corners and welded. A tie rod to be provided at bottom. Necessary weather seals shall be provided. Sintex doors are made out of PVC section and panels. The door shutter is made out of extruded PVC sections solid core type with usual process variation and having a wall thickness of 2 mm with a variation of \pm 0.3 mm provided with all plastic reinforcement to avoid any type of rusting or corrodes. The shutter frame is mitered and joined at the corners by means of stainless steel screws. The corners of the shutter frame are being reinforced by polymeric reinforcement of the size 120x200 mm and the lock rail is reinforced by 20x18x255 mm size reinforcement. The rate quoted shall include the cost of brass hinges, brass aldrops and brass tower bolts etc. of suitable size and of ap	30.00	Sq.m	2925.20	87756.00
9	Supply and fixing of toilet doors along with teak wood door frame of required size consist teak scantlings of 100 mm x 75 mm and flush door shutter and laminating both door frame and shutter with premium quality teak veneer in required colour and design and malamine polish. Flush door shutter shall be chemically treated and water/insect/borer proof and 30 mm thick. This includes providing brass hinges, brass aldrops, brass tower bolts, brass handles and brass door stoppers.	1.90	Sq.m	3180.00	6042.00
10	Supply & fixing "Jaquar" make Pressmatic urinal flush valve for urinal pots (Cat. No. 51027) with all accessories.	17.00	Each	1320.00	22440.00
11	Supply & fixing "Marc" make Oreintal series brass bib cocks, with all accessories / Cat: MOR 1030.	30.00	Each	506.00	15180.00
12	Supply & fixing "Jaquar" make Pressmatic pillar cock for wash basins, with all accessories. (Cat: 031)	19.00	Each	519.00	9861.00
13	Supply & fixing "Marc" make Oriental series brass stop cock with all accessories.	26.00	Each	698.00	18148.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
14a	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by engineer-in-charge in skirting, risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 Kg per Sq.m including pointing in white cement mixed with pigment of matching shade complete.	273.50	Sq.m	556.80	152284.80
b	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, chamfering, 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.	314.00	sq.m	3070.92	964268.88
15	Supply & fixing in position PVC Pipes of 3" dia(as per IS 6kg/sq.m) of best quality for drainage lines / urinal / hand wash areas including chasing the brick wall, concrete etc and making good the same after fixing the same etc. complete.	106.60	RM	108.70	11587.42
16	Supplying and fixing CI Nahany traps 1st quality ISI marked conforming to IS: 1729 - 1979 with C.P Grating fixing with white cement as per site requirements with standard practice - 100mm inlet - 75 mm dia (3") outlet pipe - 4 Kgs.	17.00	Each	200.00	3400.00
17a	Supply & fixing 15 mm dia Nominal Bore GI pipe medium Grade properties and weight as per IS 1239 ISI mark with GI fittings including the cost of GI pipe & its fittings, chasing brick work/concrete and making good the same ,cost of labour, all materials etc. complete. Make: TATA/JINDAL/ZENITH	153.00	RM	131.00	20043.00
b	.. Do... 20mm dia (3/4")	97.00	RM	146.00	14162.00
c	.. Do... 25mm dia (1")	82.00	RM	191.00	15662.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
18(a)	Supply & fixing of GM peet valves, heavy quality, ISI marked Leader/Zoloto make of nominal bore for 15 mm (1/2") dia	23.00	Each	242.00	5566.00
b	.. Do .. 20mm dia (3/4")	14.00	Each	327.00	4578.00
c	...do ...25mm dia (1")	22.00	Each	482.00	10604.00
c	...do ...80mm dia (3")	6.00	Each	3906.00	23436.00
19	Supplying ,laying ,jointing and testing 101.60 mm (4") SWG pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in Cement mortar 1:5:1 prop. including excavation of trenches and socket pits in anysoil(except rock requiring blasting) up to 914.40 mm(3'.0") depth and refilling with watering and tamping.	160.00	RM	149.00	23840.00
20	Construction of brick masonry chamber of dimension 0.914 x 0.457 x 0.914 m (3' x 1'6" x 3') with brick in CM 1:6 including plastering over both sides with CM 1:4, 20 mm thick and fitted with light weight CI frame and cover of size 0.914 x 0.457 m in CM 1:4 including bed concrete of CC 1:4:8 as required, supplying and fixing one CI steps in brick masonry if necessary if necessary including earth work excavation in all soils, refilling around the chamber removing the surplus earth etc. complete as directed.CI frame and cover of 40 kgs.	4.00	Each	3226.00	12904.00
21	Construction of brick masonry chamber of size 23 x 30 Cm (9" x 12") in brick work in CM 1:6 and plastering in CM 1:4, 20 mm for gully trap 150 mmx100mm including cost of excavation, PCC 1:4:8, 75 mm thick, all materials, labour etc., complete.	8.00	Each	321.00	2568.00
22	Providing and placing on terrace (at all floor levels) of polyethylene water storage tank of 1000 ltrs capacity with double layer approved brand and manufacture as per ISI with cover and suitable locking arrangement and making necessary holes for inlet and outlet and overflow pipes with fittings (ballcock, inlet and outlet nipples) without base support for tank. (Brick work will be paid seperately).	4.00	Each	6000.00	24000.00

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
23	Painting with two or more coats of Oil bound distemper over a coat of primer to new walls at all heights of the building for inside walls over three coats of Altek lappam finish (Only OBD paint will be issued free of cost by BHEL at their stores).	400.00	Sq.m	84.10	33640.00
24	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.	752.00	Sq.m	115.06	86525.12
25	Supply and fixing glazed Steel windows or ventilators of approved make including supply and fixing 4 mm thick plain glass with best quality putty. MS handles and peg stays including painting with two coats of synthetic enamel paint over one coat of red oxide paint .The Ventilator section and fabrication shall confirm to I.S. 1038.	2.16	Sq.m	1900.00	4104.00
26	Supply and fixing of aluminum window grills of size 1.50 Mx1.80M and 1.20 mx1.80M . along with aluminium frame consisting aluminium 'F' (solid) 0.80kg/12' supply and fixing of design of 2" aperture aluminium grill to the above frame work with necessary fixtures. It includes fixing of total frame to the existing brick work, finishing etc complete. (The material shall be aluminium alloy :6063, thick 7 mm, ultimate tensile strength more than 19 kgs/sq.mm)	135.00	Sq.m	1540.00	207900.00
27	Supplying and fixing plain PVC pipe of 90 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 joing to MS gutters , including cost of all materials ,sealing compound ,labour etc., for all heights complete	6.60	RM	103.86	685.48

S. No	Description	Approx Qty	Unit	Rate in Rs	Amount (Rs)
28	Supplying ,laying ,jointing and testing 152.4 mm (6") SWG pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in Cement mortar 1:5:1 prop. including excavation of trenches and socket pits in anysoil(except rock requiring blasting) up to 1524 mm(5'.0") depth and refilling with watering and tamping.	334.00	RM	254.00	84836.00
29	Applying two coat of synthetic enamel paint of given shade over a coat of primer to new wood work including scraping the surfacess, cost of all labour, tools and other incidentals etc.complete.	4.30	Sq.M	28.50	122.55
			Total of Part -III	2110551.25	
Total Part - I + Part -II + Part -III					73737508.76
Total : Rs.Seven Crores thirty seven lakhs thirty seven Thousand five hundred and nine only.					

Service Tax:- The Service tax as applicable is extra which will be paid by BHEL to the agency after submission of necessary valid documents by the agency.

Note : The Tenders are required to quote the tender value on percentage (%) basis at excess or less or on as per estimate value

Tender %	In figure	In words
Excess		
Less		
Estimated Rate only		

- 1 The Soil Investigation tests are to be carried out by the Contractor if required as per site condition.The agency should bear the above expenditure.
- 2 The contractor has to submit duty paying documents of the items mentioning consignee as BHEL mentioning their procurement value irrespective of their quoted/agreed value especially for Galvaume sheets, Polycarbonate sheets, NCL windows and Al rolling shutters, otherwise proportionate amount to be recovered.
- 3 The Ready mix concrete(RMC) rate has been worked out based on the presentmarket rate Rs 144.00 per bag. Any increase /decrease in the Cement rate the same shall be reimbursed/recovered by BHEL.

Name of the Contractor :

Signature of the Contractor

Accounts Representative

Opening officer