



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

SCHEDULE- A

Tender Notice No:

HY/FCD/OT-46/2014-15, Dt: 23.03.2015

PRICE BID

Item no.:1

Name of work: Extension of class rooms 8 Nos. for BVB public school at BHEL Township.

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
	Part A- Civil Works				
1	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 etc. complete as directed by Engineer-in-charge.	400.00	Cu.m	148.25	59,300.00
2	Providing and laying in position cement concrete of specified grade 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) etc. complete as directed by Engineer-in-charge.	72.00	Cu.M	2,836.00	2,04,192.00
3a	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 level with 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate of 20 mm nominal size) etc. complete as directed by Engineer-in-charge. The cement and steel will be issued free of cost by BHEL at BHEL stores.	77.00	Cu.M	3,047.10	2,34,626.70
b	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 floor five level with 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate of 20 mm nominal size) etc. complete as directed by Engineer-in-charge. The cement and steel will be issued free of cost by BHEL at BHEL stores.	20.00	Cu.M	3,804.30	76,086.00
c	-----do -----for RCC Chajja	10.00	Cu.M	3,804.30	38,043.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
d	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately). All works above plinth level upto floor V level etc. complete as directed by Engineer-in-charge.	112.00	Cu.M	6,353.00	7,11,536.00
4	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 etc. complete as directed by Engineer-in-charge. - The steel will be issued free of cost by BHEL at BHEL Stores.	16.10	M.T	7,114.20	1,14,538.62
5a	Centering and shuttering including strutting, propping etc.; and removal of form work, for walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc. upto plinth level etc. complete as directed by Engineer-in-charge.	360.00	Sq.M	186.40	67,104.00
b	Centering and shuttering including strutting, propping etc.; and removal of form work, for walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc. complete as directed by Engineer-in-charge above plinth level (steel centering for slab and supports).	1190.00	Sq.M	371.80	4,42,442.00
c	-----do----- for Lintel and chajja	110.00	Sq.M	309.80	34,078.00
6	Brick work with Ground moulded clay FPS brick in super structure above plinth level upto floor five level in cement mortar 1:6 (1 cement : 6 Coarse sand) etc. complete as directed by Engineer-in-charge. - The cement will be issued free of cost by BHEL at BHEL Stores.	175.00	Cu.M	4,738.00	8,29,150.00
7a	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 etc. complete as directed by Engineer-in-charge. - The cement will be issued free of cost by BHEL at BHEL Stores.	2300.00	Sq.m	148.30	3,41,090.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
b	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) etc. complete as directed by Engineer-in-charge. The cement will be issued free of cost by BHEL at BHEL Stores.	600.00	Sq.m	135.00	81,000.00
8	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 etc. complete as directed by Engineer-in-charge. - The Cement will be issued free of cost by BHEL at BHEL stores.	630.00	Sq.m	153.50	96,705.00
9	Supply and fixing of top fixed, side hung of NCL Seccolor windows & Ventilators of make shakthi/Ajantha/Finesta ,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. Mullion 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.	65.00	Sq.m	3,300.00	2,14,500.00
10	Supply and fixing in position medium teak wood door frame along with single leaf shutters solid core non - decorative type 30 mm thick of approved quality and brand including 3 No.s MS hinges 10 cm long and 1 no. mortise lock (Godrej make) , using scantling of size 100 mm X 75 mm (including with MS holdfasts of size 230 X 50 X 4 mm - 6 No.s and painting with coal tar to the faces coming in contact with masonry / concrete , including cost of all materials , labour etc. complete as directed by Engineer - in - charge.	25.05	Sq.M	3,498.00	87,624.90
11	Providing and applying white cement based putty of average thickness 1mm, of approved brand and manufacture, over the plastered wall surface to prepare the surface even and smooth etc. complete as directed by Engineer-in-charge.	2900.00	Sq.M	92.75	2,68,975.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
12	Coursed rubble masonry in second sort with hard stone in foundation & plinth with cement mortar 1:6 (1 cement :6 coarse sand) etc. complete as directed by Engineer-in-charge. The Cement will be issued free of cost by BHEL at BHEL stores.	25.00	Cu.M	3,176.00	79,400.00
13	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 etc. complete as directed by Engineer-in-charge.	400.00	Cu.M	101.50	40,600.00
14	Conveyance of excavated spoil up to a lead of 2 Kms, including loading, unloading and spreading etc. complete as directed by Engineer- in- charge.	20.00	Cu.M	114.74	2,294.80
15	Flooring with 40mm thick polished tandur slab of size 0.457 m X 0.304 m or 0.45 M X0.6M, set over base coat upto 25mm to 40 mm thick cement mortar, including duly filling joints neatly, including cost of all materials like flooring stone and water etc.; complete. including seigniorage charges, labour charges for dressing of flooring stones etc. complete as directed by Engineer-in-charge for finished item of work.	550.00	Sq.M	450.00	2,47,500.00
16	Providing and Laying ceramic glazed floor tiles 300 X 300 mm (thickness to be specified by the manufacturer) and minimum 200mm x 300mm for walls of 1st quality conforming to IS:15622 of approved make in colours such as white, Ivory, grey, fume red brown, laid on 20mm thick cement mortar 1:4 (1cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc; complete.	100.00	Sq.M	708.00	70,800.00
17	Providing 50mm thick purdi walls and sidedrops in CM 1:4 at all floors including cost of form work, supplying and trying of chicken mesh net to reinforcement , cost of binding wire and providing border bands and openings if any, curing etc.; complete but excluding cost and fabrication of MS reinforcement which will be paid for separately etc. complete as directed by Engineer-in-charge.	30.00	Cu.m	179.00	5,370.00
18	Supply & fixing in position PVC Pipes of 110 mm dia of 6 Kg/Sq. cm of approved quality and conforming to IS:4985/2000 with specials, accessories and approved sealing / jointing compound on the exterior of the inserted portion and jointing to MS gutters, including cost of all materials, sealing compound, labour etc., for all heights etc. complete as directed by Engineer-in-charge.	80.00	R M	276.00	22,080.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
19	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 as directed by Engineer-in-charge. Colour: Silky Off - White.	4.00	Each	3,300.00	13,200.00
20	Providing and Fixing 30 mm thick "Rajsri" or equivalent brand factory made both side prelam solid panel PVC door shutter consisting of frame made out of MS tubes of 19 guage thickness and size of 19mm X19mm for stiles, top and bottom rails. MS frame shall have a coat of steel , primers of approved make and manufacture . MS frmae covered with 5mm thick heat moulded "Rajsri" prelam pac 'c' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20 mm shall be tapered in 450 angle on either side forming stiles, and mm thick, 95 mm wide Rajsri prelam pac sheet out of which 75mm shall be flat and 20mm shall be tapered in 450 on the inner side to form top and bottom rail 115 mm wide Rajsri prelam pac sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rai. top , bottom and lock rail shall be pvided either side of the panel. 10mm (5mmX2) thick, 20mm wide cross Pac sheet shall pe provided as gap insert for top and bottom rail. Panelling of 5 mm thick both side prelam pac sheet to be fitted in the MS frame welded /sealed to the stiles & rials with 7mm (5mm +2mm) thick X15 mm wide solvent cement adhesive etc. an additional 5mm thick Pac strip of 20mm width is to be stuck on the interior side of the 'c' channel using Pac solvent cement adhesive etc. complete as per direction of Engineer-in-charge, manufacture specification and drawing.	6.00	Sq.m	2,700.00	16,200.00
21	Supply & fixing "Marc" make oyster series brass bib cocks. With all accessories / Cat: MOY 1030 etc. complete as directed by Engineer-in-charge.	6.00	Each	556.60	3,339.60
22	Supply & fixing in position PVC Pipes of 3" dia 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 as directed by Engineer-in-charge.	10.00	R M	144.00	1,440.00
23	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 etc. complete as directed by Engineer-in-charge.	2.00	Each	307.00	614.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
24a	Supply & fixing 15 mm dia Nominal Bore GI pipe, Class B 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 as directed by Engineer-in-charge. Make: Tata / Jindal / Zenith	5.00	R M	156.00	780.00
b	.. Do... 20mm dia (3/4")	25.00	R M	179.00	4,475.00
c	.. Do... 25mm dia (1")	60.00	R M	235.00	14,100.00
25a	Supply & fixing of GM peet valves, heavy quality, ISI marked Leader/Zoloto make of nominal bore for 20 mm (3/4") dia etc. complete as directed by Engineer-in-charge.	2.00	Each	474.00	948.00
b	.. Do .. 25mm dia (1")	2.00	Each	698.00	1,396.00
26	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 as directed by Engineer-in-charge.	2.00	Each	324.00	648.00
27	Providing and placing on terrace (at all floor levels) of polyethylene water storage tank of 1000 ltrs capacity with double layer of make sintex/Aqua tech as per ISI 12701/96 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 separately) etc. complete as directed by Engineer-in-charge.	2.00	Each	6,000.00	12,000.00
28	Supplying and fixing plain PVC pipe of 90 mm dia of 4 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 etc. complete as directed by Engineer-in-charge.	20.00	RM	114.25	2,285.00
29	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 etc. complete as directed by Engineer-in-charge.	30.00	One RM	526.00	15,780.00
30	Supply & fixing PVC Ventilating cowl of 110 mm dia etc. complete as directed by Engineer-in-charge.	1.00	Each	19.00	19.00
31	S&F 4" dia at urinals 2X2.	4.00	No.s	200.00	800.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
32	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 and channeling with 1:2:4 of 15cm thick as required, 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, including channeling. The Cement will be issued free of cost by BHEL at BHEL stores etc. complete as directed by Engineer-in-charge.	2.00	Each	8,811.20	17,622.40
33	Making Connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement and making necessary channel for the drain etc. complete as directed by Engineer-in-charge for pipes 100 to 230 mm diameter.	1.00	Each	330.50	330.50
34	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including, hoisting, fixing in position and applying a priming coat of approved steel primer all complete - In Gratings, frames, guard bar, ladder, railings, brackets, gates and similar works etc. complete as directed by Engineer-in-charge.	420.00	Kg's	86.50	36,330.00
35a	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with holdfast lugs or with dash fasteners of required dia & length (Hold fast lugs or dash fasteners shall be paid for separately). - second class teak wood etc. complete as directed by Engineer-in-charge.	0.10	Sq.m	90,495.80	9,049.58
b	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4mm thick float glass panes, including ISI marked MS pressed butt hinges bright finished or required size with necessary screws - second class teak wood etc. complete as directed by Engineer-in-charge.	4.00	Sq.m	3,112.90	12,451.60
36	Distempering with 1st quality acrylic distemper 2 coats, having VOC(Volatile organic compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour over a coat of primer -for internal surface etc. complete as directed by Engineer-in-charge.	200.00	Sq.M	41.55	8,310.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
37	Finishing walls with acrylic smooth exterior paint of required shade. - New work (Two or more coats applied @ 1.67 Kg/10 sq.m) over and including priming coat of exterior primer applied @ 2.20 Kg/10 sq.m - For external walls etc. complete as directed by Engineer-in-charge.	800.00	Sq.M	50.40	40,320.00
38	White washing with lime to give an even shade - New work (Three or more coats) - For toilets and ceiling etc. complete as directed by Engineer-in-charge.	800.00	sq.m	6.75	5,400.00
39	Washed stone grit plaster on exterior walls height upto 10m above ground -----full spec from DSR 2013 Pg 228 - 13.72 etc. complete as directed by Engineer-in-charge.	2.00	Sq.M	492.45	984.90
40	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade - two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture etc. complete as directed by Engineer-in-charge.	50.00	Sq.m	92.75	4,637.50
41	Providing and fixing wash basin with C.I brackets, 15mm C.P brass pillar taps, 32 mm C.P brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required - White vitreous china wash basin size 630 X450 mm with a pair of 15mm C.P brass pillar tap etc. complete as directed by Engineer-in-charge. This is to be operated with this rate if required at site within the deviation.	6.00	Each	1,903.25	0.00
42	Providing and Fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430X260X350mm and 340X410X265mm sizes respectively with automatic flushing cistern with standard flush pipe and CP brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets , cutting and making good the walls and floors wherever required - one urinal basin with 5 litre white PVC automatic flushing cistern etc. complete as directed by Engineer-in-charge. This is to be operated with this rate if required at site within the deviation.	10.00	Each	800.00	0.00
	Total of Part-A			₹	45,92,497.10

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
	Part -B - Electrical works.				
1	Supply, Assembly, Erection and Testing of 1x28W tube Light fittings along with bulb. Phillips make.Cat. No.TCW450 1XTL528W EBS The light fitting shall be fixed with suitable down rod, ceiling rose, ball & socket etc. and the supply of the material is in the contractor's scope. The job includes supply of 1.5sq.mm copper wire for connection between ceiling rose and TL. Note: (MRP.3526 - 20%) etc. complete as directed by Engineer-in-charge.	70.00	Nos	2,820.00	1,97,400.00
2	Supply, Erection and Testing of 230V ,18" dia (450mm), 50W, 900rpm, 1200cu.M/hr Exhaust Fans, The job includes suitable holes in the wall inclusive of masonry work or by making suitable MS frame above +20 ft. approximately from ground level etc. complete as directed by Engineer-in-charge.	3.00	Nos	2,800.00	8,400.00
3	Supply and execution of Equipment earthing with 50x6 / 25x3mm GI flat etc. complete as directed by Engineer-in-charge.	50.00	Mts	160.00	8,000.00
4	Supply and Erection of Earth pits for Equipment body earthing with 65mm dia GI pipe Medium (class-B), 3000mm long with holes of 12mm dia at 150mm apart at random & 50x6x260mm MS Earthing plate welded to pipe as per drawing. The work including supply of material for alternate layers of charcoal, salt and making Brick/ RCC chamber, cement plastering, MS/Cast Iron cover plate, Testing & Commissioning etc. complete as directed by Engineer-in-charge.	2.00	Nos	7,492.00	14,984.00
5	Supply, Assembly, Erection, Testing & Commissioning of ceiling fan along with Electronic Regulator. The job includes supply of 1.5sq.mm copper wire for connection between ceiling rose and fan. Scope includes supply and fixing of fan hook / anchor bolt etc. complete as directed by Engineer-in-charge.	40.00	Nos	1,824.00	72,960.00
6	Supply and fixing of 3pin, 250 V. 10 Amps socket cum switch with indication Roma type code 21113 and 21033 of Anchor make or North West. Fixed on suitable modular type concealed box top cover. Testing & commissioning etc. complete as directed by Engineer-in-charge.	20.00	Nos	426.00	8,520.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
7	Supply and Installation of MCB DB with MCB 415V, 8 way consisting of 10 to 20A -- 4nos MCBs on each phase , sheet enclosed, dust & vermin proof. Type KSTIL of STANDARD/ KOPP MAKE along with controlling 63A TPN in sheet enclosure with HRC fuses, PVC marking ferrules etc. It is to be fixed on a neatly fabricated steel frame and mounted on to walls or as required for lighting distribution. The job includes painting of steel frames, labelling / writing the connection chart inside the door with WHITE duco paint as required, double earthing, testing & commissioning etc. complete as directed by Engineer-in-charge.	1.00	Nos	24,195.00	24,195.00
8	Supply and execute the concealed / surface PVC/MS Pipe wiring with 1.5 sq. mm 660 / 1100. V. Grad PVC insulated copper wire multi strand of make Finolex / Rediant / fincab/ Havells/ L&T. In PVC pipe of suitable dia (As per IS for wiring points) with 14 G/1.5sq.mm green colour copper wire for earth continuity. Supply & Fixing of three plate/pin ceiling rose of Roma modular type of Anchor or North West make for connecting each light / fan point. Each circuit should not have more than 7 points 700 watts etc. complete as directed by Engineer-in-charge.	130.00	Pts	1,112.00	1,44,560.00
9	Supply and fixing of 10 Amps 250 V. SP switches for control of light fitting and fans with Roma Type code : 21011 of Anchor or North West make. Fixed on a suitable modular type concealed box with suitable top cover. Testing & commissioning etc. complete as directed by Engineer-in-charge.	130.00	Nos	273.00	35,490.00
Total of Part -B				₹	5,14,509.00
Total Value of work				₹	51,07,006.10
Total : ₹ Fifty one lakhs seven thousand six and ten paise only					

Note:

1	A penalty of 0.50 % of the gross value of work will be levied for every week's or part thereof delay in execution of work by the agency, subject to a maximum penalty of 10 % of gross value of the total work executed.
2	The rates are inclusive of all taxes and duties except Service tax, which is extra as per service tax norms will be paid by BHEL to the agency after submission of necessary documents.

Note : The bidders are required to quote the tender value on percentage (%) basis at excess or less or on par with estimate value in figures and words.

Tender %	In figure	In words
Excess		
Less		
Estimated value		