



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

SCHEDULE- A

Tender Notice No:
 PROJ-EC/ELEC/OT/2013-14/08
 Dated: 26.09.2013 Item No.1

PRICE BID

Name of work: Lighting works for GT Complex Test Bay.

S. No.	Description of the item	Unit	Qty	Rate (₹)	Amount (₹)
1	HIGH BAY LIGHTING				
a	Supply and Installation of wiring circuits for light fittings on Roof with PVC insulated single core 4 sq.mm copper wire of make Finolex / Rediant / Finecab / Havells / L&T run on Reel insulators & in trunking (from DB to Truss).The cable must be bound to reel insulators at each bracket with suitable material (nylon tie). Independent neutrals are to be run for each circuit. Phase & Neutral of each circuit to be run on same row insulators. This wiring is meant for 400W, 230V highbay Metal Halide light fittings and one circuit is for two light fittings, Testing & commissioning of the circuit is to be carried out.	Ckt	24	4,582.00	1,09,968.00
b	Supply and Installation of MS angle bracket with 5 nos of 1100 V grade Porcelain Reel Insulators for running phase & neutral wires for each circuit suitable for the above wiring. Brackets are to be painted and clamped suitably to the roof trusses.	Nos	48	295.00	14,160.00
c	Supply , Installation and Alignment of Trunking of 120 x 70 mm of 18 gauge GI/MS sheet trunking for wiring to mediumbay fittings at a height of +8 to 10 Mtrs above ground level. The trunk should have one side detachable similar to existing one and should be bolted after wiring. The trunk is to be installed on steel / RCC columns by providing clamps at intervals of 0.75 Mtrs. The trunk should be complete with all accessories like clamps etc.	Mtr	100	575.00	57,500.00
d	Assembly, Erection, Testing and commissioning of 400W highbay Metal Halide light fittings. The fitting should be fixed at approx. height 18 to 20 metres and the fitting should be suspended from the roof purlins/ trusses by making suitable clamps made out of 6 mm thick flat and suitable 'S' hook as per site conditions and site engineer instructions.	Nos	48	455.00	21,840.00

S. No.	Description of the item	Unit	Qty	Rate (₹)	Amount (₹)
e	Supply and Installation of MCB DB with TPN 415V, 12 way consisting of 10 to 20A -- 12nos MCBs on each phase , sheet enclosed, dust & vermin proof. Model KST1/12 of STANDARD/ KOPP MAKE along with controlling 100A CSFU (cast iron enclosure, GE make) switch fuse unit with HRC fuses, cable entry & reverse entry box, cable glands, 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.	Nos	1	36,106.00	36,106.00
f	Supply & Laying of two runs of annealed 12 SWG (2.5mm dia) GI wire along with reel insulator brackets for earth continuity. The GI wire must be provided with cradle guards at 1.5mt intervals with 12 SWG (2.5mm dia) GI wire. The same cradle GI wire must be extended and run along with trunking and connected to the existing earth flat in the cable trench.	RM	900	15.00	13,500.00
2	CONTROL ROOM & ANNEXE LIGHTING				
a	Shifting, Assembly, Erection, Testing & Commissioning of 2x36W different types of Tube light/false ceiling fittings. The light fitting shall be fixed with suitable down rod, ball and 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.	Nos	41	590.00	24,190.00
b	Assembly, Erection, Testing & Commissioning of 2x36W Recess Mounted Luminaire suitable for 600x600 Armstrong ceiling mounting system. The job includes supply of 1.5sq.mm copper wire for connection.	Nos	32	263.00	8,416.00
c	Shifting, Assembly, Erection, Testing & Commissioning of ceiling fan along with free issued 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.	Nos	148	388.00	57,424.00
d	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.	Nos	64	282.00	18,048.00

S. No.	Description of the item	Unit	Qty	Rate (₹)	Amount (₹)
e	Supply and fixing of 3pin, 250 V. 20/16 Amps power socket cum switch with indication Roma type code 21124 and 21066 of Anchor make or North West. Fixed on suitable modular type concealed box top cover. Testing & commissioning.	Nos	7	530.00	3,710.00
f	Supply and installation of concealed / surface PVC/MS Pipe wiring with 2.5 sq. mm PVC insulated copper wire multistrand of make Finolex / Rediant / Finecab / Havells / L&T. The wiring point for 20/16 A. power socket including 14 G./1.5sq.mm green colour copper wire for earth continuity. Independent circuit for each socket from power MCB distribution board (As per IS for wiring point) Testing and commissioning. The wiring should not be mixed with lighting pipe wiring and it should be run separately in the room / shed at a height of 2 feet from ground level or as per the site engineers instruction.	Pts	10	1,718.00	17,180.00
g	Supply and fixing of 3pin, 250 V. 10 Amps power 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.	Nos	22	435.00	9,570.00
h	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/MS pipe of suitable dia (As per IS for wiring points) with 14 G/1.5sq.mm green colour copper wire for earth continuity. Each light / fan point should be connected to three plate ceiling rose code 30090 of Roma modular type of Anchor or North West make / connector suspended duly with conduit / PVC pipe etc. Each circuit should not have more than 7 points 700 watts.	Pts	86	1,162.00	99,932.00
i	Supply and Installation of MCB DB with TPN 415V, 12way (for lighting circuits) consisting of 6 to 32A -- 12nos MCBs on each phase with double door metallic cover having transparent window, sheet enclosed, dust & vermin proof. Model S210 of STANDARD/ KOPP MAKE along with controlling 100A ICTPN (sheet enclosure, Standard/KOPP make) switch fuse unit with HRC fuses, cable entry & reverse entry box, cable glands, PVC marking ferrules etc. It is to be concealed in the wall or as per the site engineer's instructions. The job includes labelling / writing the connection chart inside the door with WHITE duco paint as required, double earthing, testing & commissioning.	Nos	2	24,072.00	48,144.00

S. No.	Description of the item	Unit	Qty	Rate (₹)	Amount (₹)
j	Supply, Erection and Testing of 230V ,12" dia(305mm), 50W, 900rpm, 1200cu.M/hr, Heavy duty Exhaust Fan. Make: USHA/GEC/CG/Almonard, complete unit, wall mounting.(The job involves making suitable holes in the wall inclusive of masonry work or by making suitable MS frame above +20 ft. approximately from ground level)	Nos	8	3,095.00	24,760.00
k	Supply and laying of PVC conduit pipe of 1.5mm thick ,1" dia with necessary clamps, couplers, bends, junction boxes at every 3.6mts. The conduit shall be laid concealed/surface for drawing telephone cables as per site engineer's instruction	Mts	200	33.00	6,600.00
l	Supply and fixing of 25A, 250V box type, mounting double pole MCB and heavy duty plug & socket with O/L & S/C protection of Northwest make Cat. No. ACPU 6M - BTJ fixing on suitable modular type concealed box with suitable top cover for Air Conditioner.	Nos	3	1,465.00	4,395.00
3	PERIPHERY LIGHTING				
a	Shifting, Assembly & installation of BHEL free issued Periphery light luminaire with POT OPTICS reflector and toughened glass cover for use with SON - T 150 W. lamps complete with all accessories by providing BHEL free issued GI Pipe neatly bent (120degrees) and fixed at a height of 15 Mtrs. / as per site Engineers instructions / as required by site conditions. Testing and commissioning. Scope includes supply and fixing of 4way metal terminal box suitable for 4x4sq.mm copper cable.	Nos	8	620.00	4,960.00
4	Shifting and execution of Equipment earthing with 50x6 / 25x3mm GI flat.	Mts	100	24.00	2,400.00
5	Shifting, Fabrication & Erection of BHEL free issue steel for cable tray/equipment supports etc. Scope includes supply and apply of two coat red oxide paint as per site engineer instructions.	MT	0.5	9,066.00	4,533.00
6	Shifting and laying of the following LT aluminium armoured PVC power cables. The job includes Dressing, Clamping etc.				
a	31/2 C x 50sq.mm Aluminium	Mts	350	15.00	5,250.00
b	3C x 2.5sq.mm Copper	Mts	300	11.00	3,300.00

S. No.	Description of the item	Unit	Qty	Rate (₹)	Amount (₹)
7	Termination of the following power cables including supply of cable glands & lugs(Aluminium/Copper).				
a	31/2 C x 50sq.mm Aluminium	Nos	6	392.00	2,352.00
b	3C x 2.5sq.mm Copper	Nos	16	150.00	2,400.00
	Total value of work			₹	6,00,638.00
Total : ₹ Six lakhs six hundred and thirty eight only.					

Note:

1	VAT & Service tax extra and will be paid by BHEL on submission of valid documents by the agency.
2a	Safety : Contractor has to ensure usage of safety shoes, safety Helmets, Safety Belts, safety net & anchoring rope, hand gloves etc. during erection and commissioning.
b	Contractor has to follow the work permit system strictly wherever applicable.
c	Contractor should ensure availability of calibration certificates for all the equipments likely to be used.
3	Contractor has to ensure neatness of the site by removing unwanted materials / scrap materials.
4	The contractor shall mark with paint all -panels regarding power cables size & FROM/TO Destinations.
5	Contractor shall shift the materials from different locations inside the factory to the project site and return back the left over materials after completion of the work to the project stores or as per the instructions of the engineer.
6	The quantities indicated in the schedule are tentative and may increase or decrease or delete. Any other works not mentioned but required for completion of the project are to be carried out by the contractor with mutually agreed rates and vetted by finance.
7	The contractor should follow all the statutory requirements, Environmental Management System (EMS), Occupation Health and Safety Management System (OHSAS) while executing the work
8	The works are to be carried out in accordance with IE rules 1956.
9	If the offer quoted by the L1 agency is less than 10% of estimate value the agency shall submit the Bank guarantee for the difference amount between quoted value of L1 agency and (-)90% value of estimate value as Advance Security Deposit (ASD) to ensure that the agency to take up and complete the work awarded. This will be released after satisfactory completion of the work by the L1 agency at the time of final bill. The Advance Security Deposit is in addition to the Security Deposit (For Maintenance period) specified in NIT.

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		