

No: AAI/ER/DBR/SM (E-E)/AFL/2022-23 / WO-5

Date: -06.04.2022

To,

M/s Manna Electronics & Electrical Works
79, Mahindra Banerjee Road, P.O. & P.S.: Parnasree
Kolkata-700060
Email: - manna.meew@gmail.com

Subject: Provision of Apron Flood Lighting and associated electrical works at Darbhanga Airport.

Reference: (i) Your E-tender Opened in CPP portal on 24.03.2022

Dear Sir,

1. Your e-bid for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, New Delhi, at the item rate quoted by you totalling to Rs. 47,96,363/- (Excluding GST) which is 37.211% below the Justified Cost of Rs. 76,38,883/- (Excluding GST).
2. Senior Manager (E-E), AAI, Darbhanga Airport shall be the Engineer-In-Charge of the work. You are requested to attend the office of Senior Mgr. (E-E), AAI Darbhanga, Airport within ten days to sign and complete the Contract Agreement. The Contract Agreement shall be executed on a non-judicial stamp paper of value Rs. 100/ (Rupees One Hundred Only) and the cost of the stamp paper shall be borne by you.
3. Please deposit Rs. 4,79,636/- towards Security Deposit within 10 days from the date of issue of this letter, failing which, the same will be deducted from the running bills.
4. You are requested to comply with the provision of Contract Labor (Regulation and Abolition) Act 1970 and Contract Labor (Regulation and Abolition) Central rules 1971 and minimum wages act and rules thereof Central and State Governments.
5. You are also directed to contact Asst. Mgr. (E-E), AAI, Darbhanga Airport, immediately who will arrange to hand over the site to you. Please note that the time allowed for carrying out the work shall be **Three Months** and same shall be reckoned from **15.04.2022**

Cont'd 2

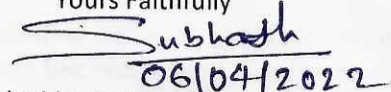


भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

6. Any further correspondence in connection with the contract should normally be addressed to Senior Manager(E-E), Airports Authority of India, Darbhanga Airport, Pin. -846005.
7. The rates are inclusive of all taxes excluding GST (as applicable). In case the GST rates are lower the prevailing GST rates in subsequent year i.e.2021-22, then the difference between previous year rate and existing rates will be deducted as per actual. The agency has to submit the bill, Tax invoices along with all necessary documents for preparing bill to this office.
8. All the letters referred above shall form part of contract.
9. the Defects Liability Period is **one year** from the date of completion of the work.

Thanking you.

Yours Faithfully


06/04/2022

(Subhash Kumar Paswan)
Senior Manager(E-E)
AAI, Darbhanga Airport

Enclosure: Schedule of Work/Quantities.

Copy To:

1. Jt.GM(F&A), AAI, JPNI Airport, Patna
2. Jt.GM(E-E), AAI, JPNI Airport, Patna.
3. Airport Director. AAI, Darbhanga Airport.
4. AM(E-E), AAI, Darbhanga Airport

AIRPORTS AUTHORITY OF INDIA
ENGINEERING WING (ELECT.)
DARBHANGA AIRPORT
SCHDULE OF QUANTITY

Name of Work :- Provision of Apron Flood Lighting and Associated electrical works at Darbhanga Airport.

Sl. No.	Description of Item	Qty	Unit	Rate (Rs)	Amount (Rs)	Remarks
1	Design, Erection, Supply, installation, testing and commissioning of hot dip galvanized (internal and external), polygonal, multisectional, slip in stress fit 20 mtrs. high mast made of Steel as per BS/DIN/ASTM, welded as per BS-5135 / AWS and designed to withstand wind speed as per IS-875 (P-3) complete in all respects including manually cum electrically operated raising and lowering mechanism having double drum winch , gear, motor (Over Load protection) with remote operated push button having 5 mtr length cord , steel wire ropes, lantern carriage suitable for adequate number of LED luminaires in asymmetrical arrangements and obstruction lights, top pulley arrangement (double) . Lightning finial, providing required length of 11 KV grade multicore copper conductor of size 4 core x 6 sq mm trailing cable (as per IS - 4289, elastomer insulated, circular, synthetic textile material braided) , Suitable TPN DB with SPMCB for each luminaire 20 A multiple socket and top including civil foundation and foundation bolts as per OEM recommendation with supply and embedding of 110 mm dia HDPE pipe for cable entry as per OEM recommendation, including SITC of outdoor stand mounted feeder pillar with 32A TPN MCB incomer, 32A ELCB suitable for 3phase 415 V, 50 Hz AC supply, single dial time switch, 25A TP contactor for the automatic switching of luminaires, power tool control with 2 no 9A contactors and raise lower push button, Incoming 35 sq. mm and out going 16 & 2.5 sq. mm terminals and SITC of suitable (including all losses) LED fixtures to achieve the required illumination level of 20 Lux on APRON as specified in technical specification and SITC of 2 x (225-300) watt(including all losses) LED fixture (Model - BVP410LED225CW HESY20 FG S4 XTFCL of Phillips make or equivalent) on each MAST facing towards Terminal Building to illuminate facial lighting, LED Type Aviation obstruction light as per ICAO specification on the existing High Mast including wiring for LED luminaires with 2.5 Sq mm Cu wire, PVC insulated PVC sheathed , ISI marked, FRLS in suitable steel conduit, connections of fittings , angle setting of fixtures to achieve desired lux as per the design, lightning arrestor with complete accessories including 2 nos G.I pipe earthing per mast with 4.5 metre long, 40 mm dia G.I pipe including connection to High Mast earth terminal with 25x 5 G.I strip with all accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc with charcoal/ coke and salt etc complete as required.	3	Job	5,15,132.33	15,45,396.99	
2	Supply of following size LT power cable of 11 KV grade of following size aluminium conductor XLPE insulated PVC sheathed armoured cable conforming to IS 7098 Part I-1988 with upto date amendment as required.					
	(a) 4 core x 16 sq mm	70	Mtr.	160.31	11221.70	
	(b) 3.5 core x 185 sq mm	2000	Mtr.	950.32	1900640.00	
3	Supply of 6 Core, Single Mode, OS2, armoured optical Fibre cable, external rodent resistant with as per standard specification as required.	1200	Mtr.	41.77	50124.00	MR
4	Supply and laying of 110 mm dia HDPE (High Density Polyethylene) pipe for with PE 80 (PN 8) conforming to technical specification IS 4984 1995 with latest amendments	1500	Mtr.	355.31	532965.00	MR
5	Laying & fixing of one number PVC insulated and PVC sheathed/ XLPE aluminium conductor cable of 11 KV grade of following size on surface as required					
	a) Upto 185 sq. mm	200	Mtr.	100.19	20038.00	

Subhash
SM(E-E)
06/04/2022

6	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
	(a) 3.5 core x 185 sq mm	4	Set	570.11	2280.44
	(b) 4 core x 16 sq mm	2	Each	160.11	320.22
7	Laying of 110mm sizes outer dia. HDPE pipe with HDD trenchless method direct in ground at minimum depth of 3.0 meter (under Runway/Taxiway/Road only) in all type soil including coupling, splicing, jointing of pipe, rope etc complete as required in all respect as per specification.	2000	Mtr	215.21	430420.00
8	Design, manufacturing, supply, installation, testing and commissioning of outdoor type cubical panel for Apron Flood Light Towers, double door, weather and vermin proof, powder coated painting, Duly fabricated with 2mm thick CRCA Sheet Steel, 3mm thick sheet steel for gland plate, Degree of Protection of Enclosure shall be IP~54, suitable for operation on 3 phase and neutral, 415 V, 50 HZ AC system. Entire panel shall have a common GI earth bar of size 50mmx5mm at the rear with two number earth stud. Cable entry will be from bottom. Control Wiring should be done by FRLS PVC insulated 2.5 Sq.mm solid copper conductor cable. The feeder pillar shall consist of following switch gears, Bus Bar and other accessories complete as required and as per technical specification attached with tender document. a) Incomers :- i) MCCB of 250Amps, 415 V, breaking capacity 25 kA(Ics=100%Icu), 4 Pole, rotary handle, Adjustable Thermal release, RYB Phase LED indication lamp with suitable control MCBs and CT operated digital multi function metre class 1.0, Qty: 02 Nos. ii) Mechanical (castle key) interlocking between two incomers and Bus Coupler so that any two can be ON at one time. - 1 set (b) Bus Coupler: MCCB of 250Amps, 415 V, breaking capacity 25 kA(Ics=100%Icu), 4 Pole, rotary handle, Adjustable Thermal release, LED ON-OFF indication lamp, Qty: 01 No. (c) 1 Set of 250 Amp TPN busbars of high conductivity electrolytic grade aluminium with 100% neutral size & Heat shrinkable colour coded insulation sleeves. d) Outgoings. (i) Power Contactor (125A, 4P, 3Ph, 415V, 50 Hz) with Auxiliary contactor with 2 NO + 2 NC necessary timer (auto-manual-bypass), control MCB etc-03 Nos. (ii) Power Contactor (125A, 2P, 1Ph, 230V, 50 Hz) with Auxiliary contactor with 2 NC, necessary timer (auto-manual-bypass), control MCB etc-03 Nos. (iii) Suitable Connector for termination of control wire-1 No. iii) MCCB of 125 Amps, 415 V, breaking capacity 25 kA(Ics=100%Icu), 4 Pole, Adjustable Thermal magnetic releases-5 Nos. iv) 6Amp C-Curve, 10KA, DP MCB-08 Nos. v) Rotary switch for auto & manual system and ON-OFF LED Indication lamp : 06 Nos. v) Other Standard accessories for remote operations	1	Job	302957.01	302957.01

Total =Rs. 4796363.36
 Add GST @ 18% =Rs 863345.40
 Total = Rs 5659708.76
 Grand Total = Rs. 5659709.00

(Rupees Forty Seven Lakhs Ninty Six Thousand Three Hundred and Sixty three only) excluding GST

Signature Not Verified

Digitally signed by SUBHASH KUMAR PASWAN
 Date: 2022.04.07 10:01:28 IST
 Location: eProcurement System for Central PSUs

Subhash
 06/04/2022
 (Engg-Elect)
 Bhanga Airport