

Tender Inviting Authority: Asstt. General Manager (E-E)
Name of Work: "Extension of Terminal Building, Extension of Apron, C/o Hanger for AB-32 aircraft & allies works at CE Jamnagar."
Sub Head : Provision of Apron Edge Lighting works"

Contract No: AAI/JAMNAGAR/AGM(E-E)/e-NIT-02/22-23

Tender ID: 2022_AAL_121971_1

SCHEDULE OF WORK / ITEM(S)

Sl.No	Description of Work / Item(s)	No. of Qty	Units	Estimated Rate	Techno Electricals(GSTN-24AAAGFT9086M1ZG)		Manish Electricals(GSTN-23AABLPM9012E1ZW)		L1 Amount	L1 Vendor
					Rate	Amount	Rate	Amount		
1.00	Supply of elevated type 7.5 W(Maximum) LED Taxiway Edge light fitting (MIRL fitting) for use as Taxiway / Apron Edge / Turning Pad lights suitable for operation at 2.8 Amps to 6 Amps series circuit supply current complete with suitable LEDs, omni-directional blue / red lens, lens clamping mechanism, breakable coupling, rings /gaskets, base plate with 06 nos. M-10 stainless steel bolts and including an integrated encapsulated suitable electronic converter with standard secondary lead etc. complete fitting conforming to latest ICAO standards /requirement complete as required	22.00	Each	3876.00	4000.00	88000.00	3400.00	74800.00	74800.00	Manish Electricals
2.00	Supply of 5 KV grade plug and receptacle of type - I Class B connector and suitable for field attachment with 5 KV grade PVC insulated, PVC sheathed single core 6 sq. mm copper conductor cable conforming to technical specifications etc complete as required	22.00	Each	587.00	480.00	10560.00	390.00	8580.00	8580.00	Manish Electricals
2.10	6 Sq. mm									
3.00	Supply of indoor type air-cooled microprocessor based constant current regulator of thyristor controlled type suitable for use on input supply voltage 230V/415V, ±10%, 50 c/s input AC supply with output power of following rating with 5 steps variation of current output suitable for local and remote control operations with 24/48 volts integral control supply and complete with output digital ammeter of (0-30) Amps range, over current, over voltage, earth fault protection and earth leakage meter, positive feed back indication equipments, complete with 5.0 KV grade suitable current transformers and relay contacts									
3.10	4 KW, 6.6 A CCR	1.00	Each	183819.00	210000.00	210000.00	180000.00	180000.00	180000.00	Manish Electricals
4.00	Supply of 15 Watt 6.6 Amps /6.6 Amps 5 KV grade 50 Hz Isolating transformer series type encapsulated in neoprene type rubber with primary and secondary leads as specified in particular technical specification	22.00	Each	2856.00	3000.00	66000.00	2700.00	59400.00	59400.00	Manish Electricals
5.00	Supply of following sizes 5 KV grade PVC insulated & PVC sheathed, antitermite & anti-rodent, multistranded copper conductor single / double core unarmored Airfield lighting cable conforming to IS 1554 (Part-II) with up to date amendments and conforming to tenders technical specifications, terms & conditions etc. complete as required									
5.10	Single core 6 Sq. mm	1151.00	Meter	122.00	105.00	120855.00	85.00	97835.00	97835.00	Manish Electricals
5.20	2C X 6 Sq. mm	365.00	Meter	184.00	220.00	80300.00	210.00	76650.00	76650.00	Manish Electricals
6.00	Supply of C. I. isolating transformer housing box, water tight round type, metal container of outside parameter size 330mm height 450mm made of 10mm thick cast iron moulding all round except top surface, which is 15mm thick, cast iron moulding suitable to receive light fitting base plate on the top & under ground housing associated with transformer power cable & having a clear hole center at one site surface center 75mm above button surface suitable to receive one no. of 50mm dia "B" class GI pipe and including check nuts as required and another hole at 175mm from the bottom of C. I. box to receive one no. 15mm dia "B" class, GI pipe and check nut as required. The box should have two SS earth bolts of M10 x 30mm tapped inside near the hole (4" away from the hole centre) and having a drain hole at the bottom suitably tapped to receive 15mm dia, "B" class GI pipe and having clear opening of 220mm at the top surface and 6 nos M10 tapped hole at the hole centre 250mm to receive fitting base plate and bolts as required as per the drawings	18.00	Set	4947.00	5600.00	100800.00	4950.00	89100.00	89100.00	Manish Electricals



7.00	Supply of C.I. collar, suitable for water tight round type, metal container of outside dia. 330mm, height 50mm made of 10mm thick cast iron moulding all round, except the top surface, which is 15mm thick cast iron moulding suitable to receive a light fitting base plate on the top and the bottom. The box should have clear opening of 220mm at the top and bottom surface and 6 Nos. M10 tapped hole at centre 260mm to receive fitting base plate at top and 6 Nos. M10 tapped hole at centre 260mm to attach the existing CI housing box at base and bolts as required.	12.00	Set	2703.00	2700.00	32400.00	2700.00	32400.00	32400.00	Techno Electricals, Manish Electricals
8.00	Installation, Testing, and Commissioning of elevated type MRL fittings on the existing transformer housing boxes including installation of Isolating transformer, lens, lamps, laying of secondary lead upto 8 meters in pipe and other accessories, alignment, leveling and making transformer connections, earth connections etc complete as required	18.00	Job	293.00	150.00	2700.00	250.00	4500.00	2700.00	Techno Electricals
9.00	Installation, testing and commissioning of 4 to 30 KW capacity indoor type air cooled, microprocessor based constant current regulator of thyristor controlled type suitable for use on input supply voltage 230V/415V, $\pm 10\%$, 50 c/s input AC supply with output power of following rating with 5 steps variation of current output suitable for local and remote control operations with 24/48 volts integral control supply also including minor civil works, control & power cable terminations, earthing termination etc. complete as required.	1.00	Job	17597.00	7000.00	7000.00	10000.00	10000.00	7000.00	Techno Electricals
10.00	Installation of transformer housing boxes with base concrete of 1:3:6 of size 630 x 630 x 100mm thick all round concrete of 1:2:4, 150mm thick, the top stopped with 1:2:4 cement including providing and fixing 250mm long 15mm dia "B" class GI pipe with check nut for drainage of water including excavation of side shoulder and refilling (wherever the transformers boxes are not in a line the same has to be aligned in such a way that the centre fall in a straight line) etc. complete as required	18.00	Job	4106.00	2800.00	50400.00	2200.00	39600.00	39600.00	Manish Electricals
11.00	Making field connections by crimping 6 sq. mm plug and receptacle with existing 6 sq. mm single core PVC copper conductor cable including filling the gap with water sealant material and applying PVC insulated tape etc. complete as required	36.00	Each	175.00	120.00	4320.00	150.00	5400.00	4320.00	Techno Electricals
12.00	Excavation of the cable trenches in hard rock not exceeding 1.5 meter in width, and lift upto 1.5 meter, including getting out the excavated soil and disposal of excavated soil as directed within a lead of 50 meter	100.00	Cum	1012.00	700.00	70000.00	800.00	80000.00	70000.00	Techno Electricals
13.00	Laying of one number PVC insulated and PVC sheathed XLPE power cable of 11 KV grade of following size direct in ground including excavation sand cushioning, protective covering and refilling the trench etc. as required but excluding sand cushioning, protective covering.									
13.10	Upto 120 sq. mm	305.00	Meter	438.00	285.00	86925.00	300.00	91600.00	86925.00	Techno Electricals
14.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/HUME/METAL /HDPE pipe as required									
14.10	Upto 120 sq. mm	941.00	Meter	64.00	20.00	18820.00	20.00	18820.00	18820.00	Electricals, Manish
15.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required									
15.10	Upto 120 sq. mm	270.00	Meter	52.00	20.00	5400.00	30.00	8100.00	5400.00	Techno Electricals
16.00	Supplying and laying of 63 mm dia. DWVC HDPE pipe (SI) marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc in the existing trench, complete as required	260.00	Meter	109.00	165.00	42900.00	190.00	49400.00	42900.00	Techno Electricals
17.00	Supplying and laying of following dia "B" Class, ISI, GI Pipe including excavation of cchard/soft soil complete with threading and alignment of pipe with transformer housing box, providing check nuts, as required									
17.10	15 mm Dia	101.00	Meter	411.00	250.00	25250.00	290.00	29290.00	25250.00	Techno Electricals, Manish
17.20	50 mm Dia	664.00	Meter	536.00	700.00	464800.00	660.00	438240.00	438240.00	Techno Electricals, Manish

18.00	Laying of minimum 63 mm Dia GI pipe at a depth upto 1.5 m below ground level by HDD (Horizontal direction drilling) work using trenchless technology for cable laying below existing taxi tracks of IAF / AAI complete as required	60.00	Meter	164.00	800.00	48000.00	1800.00	108000.00	48000.00	Techno Electricals
19.00	Supplying and making cable route marker with 10 cm X 10 cm X 5 mm thick G.I. Plate with inscription on, bolted/ welded to 35 mm x 35 mm x 6 mm angle iron, 60 cm long and fixing the same in ground as required.	20.00	Each	383.00	280.00	5600.00	400.00	8000.00	5600.00	Techno Electricals
20.00	Providing and fixing of advance technology earth electrode earthing system fabricated from High Tensile steel rods(Cu bonded Earth electrode Rod technology) with SS Double Sided Clamp (175mm X 50mm x 3mm) & cavity between rods pressure filled with highly conductive non-corrosive crystalline material complete with chemically modified homogeneous earth enhancing compound (Loresco powerfil carbon based back fill compound 25 Kg) to treat the soil for lowering the effective ground impedance for each earth pit to make it maintenance free and to minimize the ground voltage potential rise i/c excavation of Eco friendly rust proof heavy duty weather proof polyethylene earth pit chamber with suitable to accommodate earth electrode (254 mm Top, 330mm dia bottom & 260 mm height), prefabricated MS enclosure with cover plate all as reqd. & conforming to (IS 3043 : 1987) duly CPR/NERDA approved all as required & as specified for Size :- Electrode rod dia = 17.2 mm Length of electrode rod = 3 Mtr	8.00	Set	4449.00	6500.00	52000.00	15000.00	120000.00	52000.00	Techno Electricals
21.00	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	40.00	Meter	483.00	525.00	21000.00	600.00	24000.00	21000.00	Techno Electricals
22.00	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	240.00	Meter	206.00	170.00	40800.00	400.00	96000.00	40800.00	Techno Electricals
23.00	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	1801.00	Meter	37.00	20.00	36020.00	25.00	45025.00	36020.00	Techno Electricals

1794640.00

Lowest Amount Quoted BY: Techno Electricals (16,90,850.00)

BOQ Summary Details

Tender Title: Extension of Terminal Building, Extension of Apron Construction of Hanger for AB 321 aircraft and allies works at CE Jammagar. Sub Head Provision of Apron Edge Lighting works.

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Sheet Name	Sl.No	Bidder Name	Amount	Bid Rank
BoC1	1	Techno Electricals	1690850.00	L1
	2	Manish Electricals	1794540.00	L2

12.08.22