

BOQ Summary Details				
Tender Title: Balance GLF Electrical works of Apron Extension and Parallel Taxi Track- in Phase-II and III				
Tender ID: 2023_AAI_172948_1				

Sheet Name	Sl.No	Bidder Name	Amount	Bid Rank
BoQ1	1	Techno Electricals	13696829.00	L1
	2	AMA Private Limited	16162565.00	L2

Tender Inviting Authority: Asstt. General Manager (E-E)

Name of Work: "Holistic Development of Surat Airport Including Extension of Apron and Terminal Building and Construction of Parallel Taxi Track. SH: Balance GLF Electrical works of Apron Extension & Parallel Taxi Track- in Phase-II & III."

Contract No: AAI/SRT/AGM(E-E)/e-NIT-02/2023-24

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SCHEDULE OF WORK / ITEM(S)

Sl.No	Description of Work / Item(s)	No.of Qty	Units	Estimate d Rate	Techno Electricals(GSTN-24AAGFT9086M1ZG)		AMA Private Limited(GSTN-27AAACA1016F1ZE)		L1 Amount	L1 Vendor
					Rate	Amount	Rate	Amount		
1.01	Supply of 2 X 25 sq.mm Aluminum conductor PVC insulated, PVC sheathed (Inner sheath extruded) galvanized steel strip armoured anti termite and anti rodent treated under ground cable of 5 KV grade conforming to IS 1554 as amended upto date and as specified in particular specification.	2080.00	Meter		297.00	617760.00	290.00	603200.00	603200.00	AMA Private Limited
1.02	Supply of 1 Corex 6 sq.mm. Copper conductor PVC insulated, PVC sheathed single core unarmoured anti termite and anti rodent treated under ground cable of 5 KV grade conforming to IS 1554 as amended upto date	2004.00	Meter		92.00	184368.00	115.00	230460.00	184368.00	Techno Electricals
1.03	Supply of 1 Core x 16 sq.mm. Copper conductor PVC insulated, PVC sheathed single core unarmoured anti termite and anti rodent treated under ground cable of 5 KV grade conforming to IS 1554 as amended upto date	968.00	Meter		207.00	200376.00	220.00	212960.00	200376.00	Techno Electricals
1.04	Supply of 2 Core x 4 sq.mm Secondary lead of various length made out of multistranded annealed copper conductor PVC sheathed unshield anti-termite and anti-rodent treated 5 KV grade cable including connector etc. as specified and as required.	1379.00	Meter		160.00	220640.00	145.00	199955.00	199955.00	AMA Private Limited
1.05	Supply of 2 x 105 watt Bi-directional INSET type, high intensity halogen type runway edge light fitting with one side Red lens & one side yellow lens//Amber lens/Green lens suitable for runway edge light complete with prefocus lamp holder 2 x 105w , halogen lamps, lens/spreader glass holding mechanism, reflector assembly ,shallow base box complete as per ICAO requirements.	13.00	Each		56200.00	730600.00	75000.00	975000.00	730600.00	Techno Electricals
1.06	Supply of INSET Omnidirectional suitable dia. LED type Medium Intensity Taxiway/apron edge light fittings suitable for operation at 6.6 A series circuit power supply complete with, Lens supporting mechanism, lens clamp mechanism, omni directional Blue lens, two pin secondary connecting lead with secondary connector, gasket and other accessories meeting ICAO/FAA requirements.	60.00	Each		40000.00	2400000.00	43500.00	2610000.00	2400000.00	Techno Electricals
1.07	Supply of 3 x 105 watt Unidirectional INSET type, high intensity halogen type for Approach light fitting complete with prefocus lamp holder 3 x 105W , halogen lamps, lens/spreader glass holding mechanism, reflector assembly ,shallow base box ,secondray connector complete as per FAA/ICAO Annexure-14 requirements.	2.00	Each		65000.00	130000.00	76000.00	152000.00	130000.00	Techno Electricals
1.08	Supply of Elevated Omni directional LED type Medium Intensity Taxiway/apron edge light fittings suitable for operation at 6.6 A series circuit power supply complete with, Lens supporting mechanism, lens clamp mechanism, omni directional Blue lens, Central column assembly, Breakable Coupling, two pin secondary connecting lead with secondary connector including Base Plate with 06 nos stainless steel M-10 Bolt nuts with spring washer, Gasket and other accessories. Fitting and its accessories shall have not less than 50000 burning hrs and meeting ICAO/FAA requirements as per the tender specifications	70.00	Each		4000.00	280000.00	3200.00	224000.00	224000.00	AMA Private Limited

1.09	Supply of following ratings, 5KV ,50Hz individual lamp series to series type isolating transformer encapsulated in polyester resin finally molded in neoprene rubber as specified in particular specification.		
1.10	15W, 6.6 /6.6Amps	133.00	Each
1.11	15W, 20 /6.6Amps	22.00	Each
1.12	45W, 6.6 /6.6Amps	6.00	Each
1.13	100W, 6.6 /6.6Amps	115.00	Each
1.14	200W, 20 /6.6Amps	14.00	Each
1.15	300W, 6.6 /6.6Amps	3.00	Each
1.16	Supply & making field connections by crimping 6 Sq.mm plug and receptacle with existing 6 Sq.mm single core copper conductor PVC insulated and PVC sheathed cable including filling the gap with water sealant material applying HT tape over PVC tape etc as required. (A set shall consist of one male and one female connector).	157.00	Each
1.17	Installation, testing and commissioning of elevated type LED Taxiway, Runway Guard Light & Apron edge light fittings in the existing transformer housing box including secondary cable & connector of suitable length etc for connection with isolating transformer complete as per site requirement and as decided by E-I-C.	70.00	Each
1.18	Moulding of secondray cable size 2Cx4.0 Sq.mm of 5kV grade at site with required 2pin male/female connector complete as required.	93.00	Set
1.19	Providing of following size HDPE/DWC HDPE pipe as per IS including suitable size PP rope, etc. complete in all respect as required.		
1.20	110 mm OD with minimum wall thickness 5.90mm , PN 6 PE 80/100 HDPE pipe (IS:4984-2016 marked)	440.00	Meter
1.21	50 mm OD with minimum wall thickness 2.4 mm , PN 6 PE-80/100 HDPE pipe (IS:4984-2016 marked)	600.00	Meter
1.22	Laying of HDPE pipe of following Size with HDD trenchless methood direct in ground (upto 5mtr below ground level for taxi/runway /road crossing including suitable size PP rope, etc. complete in all respect as required.		
1.23	63 mm dia (OD-63 mm & ID-51 mm nominal)	3640.00	Meter
1.24	120 mm dia (OD-120 mm & ID-103 mm nominal)	560.00	Meter
1.25	Laying of HDPE pipe of following Size with HDD trenchless methood direct in ground (upto 5mtr below ground level for taxi/runway /road crossing including suitable size PP rope, etc. complete in all respect as required.		
1.26	110mm HDPE pipe	440.00	Meter
1.27	50mm HDPE pipe	600.00	Meter
1.28	Supply and installation base plate suitable for round Cast Iron transformer housing boxes encloser of size 330 mm (L) X 330 mm (W) and up to 4mm (Thickness) . The Top Surface cover shall have 6 no's M 10 tapped hole at the centre & as per site requirement sample approved by EIC etc. complete as required.	100.00	Each
1.29	SITC of cubical type totally enclosed outdoor feeder pillar, powder coated, dust and vermin proof of size upto 400mm(H) X 500MM(W)X300MM(D) suitable for 2 X 25 SQ.MMM., 5 KV AFL cable fabricated from CRCA sheet of 2mm thick complete with suitable rating 2 nos aluminum busbar fitted on a suitable size porcelain insulator, hinged front door with locking arrangement, suitable size MS angle iron stand of height 400 mm with breakable coupling legs. job also includes the PCC foundation work for feeder pillar etc. Complete as required.	5.00	Job
1.30	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade / 5KV airfield cable /OFC of following size in the existing RCC / HUME / METAL/PVC/DWC/HDPE Pipe as required.		
1.31	Upto 35 sqmm	5052.00	Meter

2880.00	383040.00	2550.00	339150.00	339150.00	AMA Private Limited
2880.00	63360.00	2550.00	56100.00	56100.00	AMA Private Limited
3200.00	19200.00	3450.00	20700.00	19200.00	Techno Electricals
4255.00	489325.00	3700.00	425500.00	425500.00	AMA Private Limited
4800.00	67200.00	4850.00	67900.00	67200.00	Techno Electricals
6500.00	19500.00	5500.00	16500.00	16500.00	AMA Private Limited
460.00	72220.00	575.00	90275.00	72220.00	Techno Electricals
120.00	8400.00	500.00	35000.00	8400.00	Techno Electricals
500.00	46500.00	750.00	69750.00	46500.00	Techno Electricals
332.00	146080.00	395.00	173800.00	146080.00	Techno Electricals
86.00	51600.00	190.00	114000.00	51600.00	Techno Electricals
180.00	655200.00	575.00	2093000.00	655200.00	Techno Electricals
275.00	154000.00	850.00	476000.00	154000.00	Techno Electricals
400.00	176000.00	850.00	374000.00	176000.00	Techno Electricals
300.00	180000.00	700.00	420000.00	180000.00	Techno Electricals
675.00	67500.00	900.00	90000.00	67500.00	Techno Electricals
12500.00	62500.00	25000.00	125000.00	62500.00	Techno Electricals
15.00	75780.00	25.00	126300.00	75780.00	Techno Electricals

1.32	Supply and Making end termination with brass compression gland and aluminum lugs for following size XLPE insulated and PVC sheathed Aluminum conductor cable of following KV grade as required.		
1.33	2x25 sq mm 5KV grade airfield cable	4.00	Each
1.34	3.5 x 240 Sq.mm 1.1KV grade airfield cable	20.00	Each
1.35	Fabrication & Supply of Guidance Sign Board of various size as per ICAO standards (Legend as approved by Engineer-In-Charge) made out of aluminum profile structure, panel shall be made of 2mm thick powder coated aluminum sheet, 4mm polycarbonate sheet with glare free face having minimum width 100 mm and suitable no. of supports at back by 50 mm dia (Nominal Size) die cast aluminum / GI Pipe frangible coupling as per latest ICAO/FAA requirement at separation along with provision of suitable PCC foundation as required. Light source shall be high lumen with 50000 hrs life,suitable Watts LED's (Make: Osram/ cree/ nichia/ lumileds/ philips) assembled on aluminum PCB of size 700mm X 20mm and having 11 LED's per/mtr or proportionate PCB for boards(Approved by Engineer-In-Charge) to achieve illumination as per latest ICAO/FAA requirement . The thickness of the aluminum PCB should be 2mm in order to ensure proper heat dissipation. These aluminum PCB's should be placed not more than 160mm apart across the length of the board in order to ensure uniform distribution of light across the board. Each board of length 800mm to 1500 mm should be illuminated by single converter single isolating transformer & above 1500 mm should be illuminated by double converter & double isolating transformer of suitable capacity. Board illumination shall be uniform(constant) with the variable input current from 2.8 to 6.6 A. The letter and symbol should be screen printed on inside of sign face made of self adhesive film of 3M applied on the inside face with required colouring. Suitable arrangement shall be made for water tight, dust proof and locking arrangement i/c all other accessories, secondary leads, suitable convertor to constant current series system & converter shall be able to operate on either any one ckt with two inputs from double series ckts . , nut bolt , cable connections etc as required etc.	70.00	Sq. Mtr
1.36	Supply and Making Straight through Joint with heat shrinkable kit including ferrules and other jointing materials for following size PVC insulated PVC sheathed / XLPE aluminum conductor cable of following KV grade as required.		
1.37	2 x 25 Sq.mm. of 5 KV grade	4.00	Each
1.38	3.5 x 240 Sq.mm of 1.1 KV grade	20.00	Each
1.39	Construction of cable chamber of inner size 900mm(L) x900mm(W) x900mm(D) which includes excavation and disposal of excavated in all kinds of soil earth lead upto 50 m and providing & laying of 100 mm cement concrete of 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) grade at the bottom of the chamber and Brick work with common burnt clay bricks at foundation and plinth in Cement mortar 1:4 (1 cement : 4 coarse sand) with 12 mm cement plaster finished with neat cement of mix 1:3 (1 cement: 3 fine sand). Chamber shall be provided drain pipe in the bottom and cover of chamber size chequer plate of 8mm thick with MS Angle frame made of 50x50x5mm and shall be provided with lifting hooks as required.	45.00	Each
1.40	Installation testing and commissioning of INSET type Runway edge/ Apron edge light fitting including preparation of core cutting in existing bituminous pavement(flexible) /cement concrete pavement (rigid) payment of required size, installation & fixing of shallow base using suitable resin compound with alignment with the surrounding surface area, fixing & assembly of fitting in the shallow base and making connection etc with secondary lead including connection with isolating transformer and ITC of the isolating transformer etc complete as required.	75.00	Each
1.41	Providing and laying earth connection from earth electrode with 6 SWG dia. GI wire in 15 mm dia. GI pipe from earth electrode including connection with GI thimble excavation and refilling etc. as required	920.00	Meter

400.00	1600.00	750.00	3000.00	1600.00	Techno Electricals
900.00	18000.00	1750.00	35000.00	18000.00	Techno Electricals
32500.00	2275000.00	35000.00	2450000.00	2275000.00	Techno Electricals
1203.00	4812.00	1800.00	7200.00	4812.00	Techno Electricals
3000.00	60000.00	2800.00	56000.00	56000.00	AMA Private Limited
13000.00	585000.00	10000.00	450000.00	450000.00	AMA Private Limited
5300.00	397500.00	6500.00	487500.00	397500.00	Techno Electricals
250.00	230000.00	325.00	299000.00	230000.00	Techno Electricals

1.42	Providing and laying 6 SWG dia. GI wire on surface or in recess for loop earthing along with the existing cable on surface/recessed/in cable trench or in pipes etc. complete as required.	10000.00	Meter
1.43	Providing and fixing of advance technology earth electrode earthing system fabricated from hot deep galvanized pipes (pipe in pipe technology) & cavity between pipes pressure filled with highly conductive non-corrosive crystalline material complete with chemically modified homogeneous earth enhancing compound (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 earth pit suitable to accommodate earth electrode, prefabricated FRP enclosure with cover plate all as reqd. & conforming to (IS:3043 : 1987) duly CPRI/ERDA approved all as required & as specified for Size :- Outer pipe dia = 80mm Inner pipe dia = 40mm Length of electrode = 3 Mtr	46.00	Set
1.44	Earthing with 'B' class G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing precast enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	36.00	Set
1.45	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.	138.00	Meter
1.46	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	50.00	Meter
1.47	Supply of round Cast Iron transformer housing boxes of size 330 mm (L) X 330 mm (W) X 450 mm (H) made out of 10mm thick CI with top surface cover. The box shall have following number of to&fro clear hole having centre at 75 mm above bottom surface to receive 50 mm dia pipe (GI/HDPE) ,01 No. 20mm dia hole perpendicular to the 50mm hole and having two earth bolts and four nuts with washer of 10x40 mm welded 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. The Top Surface cover shall have a clear opening of 220 dia at top surface and 6 nos M 10 tapped hole at the centre of 260 mm to receive light fitting base plate etc. complete as required.		
1.48	Single Hole	30.00	Meter
1.49	Double Hole	20.00	Meter
1.50	Supply and laying of 50mm OD, PN 6 , PE 100 HDPE pipe (IS:4984-2016 marked) with all accessories i/c suitable size PP rope in the existing bituminous road/runway side shoulder/taxiway/runway including excavation and refilling and making good the same with 1:2:4 PCC etc. complete as required.	500.00	Meter
1.51	Laying of Secondray lead of Size 2x4 sq. mm 5kV grade copper cable in pipe by curb cutting on the surface of runway/taxiway for inset light fitting and filling the curb by suitable adhesive /other material complete as required.	1379.00	Meter
1.52	Supply & Fixing of anticorrosive and chemical resistant cable junction box of size up to 200mm x 160mm x 98mm (Hansel K 9250 or equivalent including fixing on the MS pipe of canopy structure with MS suitable clamps and neutral link and 4 way, 16 amp. terminal block for cable termination in the box and arrangement for providing loop earthing etc. complete as required.	8.00	Each
1.53	Installation, testing and Commissioning of Guidance Sign Board of various size includes installation tranformer and providing secondray leads , ESNA connector etc i/c supply of all amaterial except isolating transformer etc. the cement concrete of 1:2:4 grade foundation of size 400x400x500 mm (For each leg) and total base of 150 mm thick which extended all around the board with a distance of 1500 mm (front, back & both sides). The concrete base leg foundation shall be on the same level and 20-25mm above the ground level for each Sign board.	53.00	Each

Total in Figures

21.00	210000.00	20.00	200000.00	200000.00	AMA Private Limited
7700.00	354200.00	8000.00	368000.00	354200.00	Techno Electricals
5888.00	211968.00	6000.00	216000.00	211968.00	Techno Electricals
800.00	110400.00	180.00	24840.00	24840.00	AMA Private Limited
240.00	12000.00	180.00	9000.00	9000.00	AMA Private Limited
5500.00	165000.00	5200.00	156000.00	156000.00	AMA Private Limited
5600.00	112000.00	5300.00	106000.00	106000.00	AMA Private Limited
425.00	212500.00	275.00	137500.00	137500.00	AMA Private Limited
400.00	551600.00	425.00	586075.00	551600.00	Techno Electricals
2700.00	21600.00	1550.00	12400.00	12400.00	AMA Private Limited
12500.00	662500.00	4500.00	238500.00	238500.00	AMA Private Limited
1369629.00			16162565.00		

Signature Not Verified

Digitally signed by JAGANNATHSINGH
BABULAL DESHMUKH
Date: 2024.09.06 15:48:14 IST

Lowest Amount Quoted by Bidder (in Rs.) for Central