

Government eProcurement System Created By: Pankaj Tiwari Created Date/Time: 25-May-2021 03:35 PM Tender Title: Up-gradation of Jabalpur Airport to make it suitable for operation of AB-320 type Aircraft- Providing Sequence Flashing Lights to CAT-I Approach Lights Tender ID: 2021_AAI_71082_1

Tender Inviting Authority: Asstt. Gen. Manager (E-E), Jabalpur Airport, Jabalpur

Name of Work:- Upgradation of Jabalpur Airport to make it suitable for operation of AB-320 type Aircraft - Providing Sequence Flashing L

Contract No: AAI/JGM(ENGG.ELE)/JBP/PROJ/02/2020-21

SCHEDULE OF WORK / ITEM(S)													
Sl.No	Description of Work / Item(s)	No.of Qty	Units	Estimated Rate	Techno Electricals(GSTN-24AAGFT9086M1ZG)		AMA Private Limited(GSTN-27AAACA1016F1ZE)		Balaji Engineering(GSTN-33ADGPV2628A1ZV)		Manish Electricals(GSTN-22ABLPM9012E1ZY)		
					Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	
1.00	FMCU-Supply of FAA (FAA-E- 2682B & FAA AC150/5345-511 L849E) /ICAO /CAR complied Master Control Unit capable of controlling and Monitoring 30 Nos LED sequenced flashing approach light units with two flashes per second as per the following facilities / functions with all accessories. Controlling and Monitoring the flashing system from both local and remote system. Regulating the flashing system parameters such as brightness level of fixtures. Synchronising all the flasher units to have desired flashing system. Receiving diagnostic information such as lamp status, faults etc from flasher units. Input Power- 230 Volt, 50 Hz, 3 wire AC supply. Out Power - 230 Volt, 50Hz, 3 wire AC supply. IP class - IP43 Colour- Painted texture RAL 70350/FAA ORNGE Communication between master control unit and Flasher units - Power line communications through echelon Lonworks protocol Protections Over current/Primary fuses Over current/Primary fuses Input voltage- Delay and 2 levels warning and alarm with tripping Input frequency - delay and 2 levels warning and alarm with tripping Temperature - delay and 2 levels warning and alarm with tripping Surge arrestor Earth fault- Tripping Environment- 0 °c to (+) 55 °c	2.00	Each	9153.00	331000.00	662000.00	371363.40	742726.80	325000.00	650000.00	322000.00	644000.00	
2.00	Individual Control Unit / Flash Field Unit Supply of FAA/ICAO/CAR complied individual Control Unit suitable for LED sequence flashing approach light with two flashes per second having the following facilities / functions with all accessories. Input power (From Master Control unit) - 230 volt, 50Hz, 3 wire AC supply. Environment Temperature - (-40) °c to (+) 55 °c IP Class- IP 65 Colour- Aviation yellow RAL 1006 /FAA ORNGE Over current/Primary fuses Input voltage- Delay and 2 levels warning and alarm with tripping Input frequency - delay and 2 levels warning and alarm with tripping Temperature - delay and 2 levels warning and alarm with tripping Surge arrestor Earth fault- Tripping Environment- 0 °c to (+) 55 °c Humidity - 0 - 100% (Non condensing)	36.00	Each	10678.00	80000.00	2880000.00	84593.16	3045353.76	80000.00	2880000.00	82400.00	2966400.00	
3.00	Elevated Flashing Light Fixture Supply of FAA/ICAO/CAR Complied elevated unidirectional flash light fixture suitable for use with LED modules with two flashes per second and capable of control monitoring and regulating with Master control unit as per item No. 1 above and field flash unit as per item no. 2 above required and having the following facilities / functions with all accessories. Input power (From Individual Control unit/ Flash Field unit) - Environment Temperature - (-40) °c to (+) 55 °c IP Class- IP 67 Colour- Aviation yellow RAL 1006/FAA ORANGE Over current/Primary fuses Input voltage- Delay and 2 levels warning and alarm with tripping Input frequency - delay and 2 levels warning and alarm with tripping Temperature - delay and 2 levels warning and alarm with tripping Surge arrestor Earth fault- Tripping Environment- 0 °c to (+) 55 °c Humidity - 0 - 100% (Non condensing)	36.00	Each	11441.00	83000.00	2988000.00	79193.16	2850953.76	80000.00	2880000.00	83200.00	2995200.00	
4.00	Supply of LED module suitable for elevated flash light fixture as per Specifications complete as required	5.00	Each	11441.00	17800.00	89000.00	17604.00	88020.00	25000.00	125000.00	22000.00	110000.00	
5.00	Installation of Individual control unit on ground on a suitable dia FRP pole including providing necessary pole breakable coupling, concreting etc as required	30.00	Job	10678.00	7800.00	234000.00	1000.00	30000.00	2000.00	60000.00	9000.00	270000.00	
6.00	Installation of Elevated Flash light fixture on ground on a suitable dia FRP pole inducing providing necessary pole breakable coupling, concreting etc as required	2.00	Job	5339.00	10000.00	20000.00	25000.00	50000.00	2000.00	4000.00	16000.00	32000.00	
7.00	Installation of Elevated Flashlight fixture on existing frangible & titable type base mounted/central hinge/counter balance type pole/ mast including providing necessary brackets, supports etc. as required	28.00	Job	6528.00	500.00	14000.00	1500.00	42000.00	2500.00	70000.00	2000.00	56000.00	
8.00	Installation of Master Control unit on existing Wall with all accessories as required.	2.00	Job	41949.00	2500.00	5000.00	2500.00	5000.00	5000.00	10000.00	4000.00	8000.00	
9.00	Commissioning of sequence flashing approach lighting system consists of Master Control unit, 30Nos of individual control units s& Elevated Flashing light fixtures including necessary interconnection of individual control unit & flash unit up to a distance of 3 meter, providing necessary FRP junction boxes for termination of power cable near the individual control units, interconnection to individual control unit with suitable size cable etc as required (Power cable from Master Control/unit to first field unit, Field unit to field unit and interconnection between field unit & flash light fixture beyond three meters shall be provided separately) (Laying cost beyond 3 Meter should be inclusive in quoted rate and only cable will provided by AAI)	1.00	Job	36180.00	11125.00	11125.00	25000.00	25000.00	25000.00	25000.00	150000.00	150000.00	
10.00	Supplying following size XLPE insulated and PVC sheathed armoured copper conductor cable of 1.1 conforming to IS 7098(PART-I) KV grade as required. Size 4X50 SQMM	3300.00	Mtr	45763.00	1903.00	6279900.00	1850.00	6105000.00	2700.00	8910000.00	1870.00	6171000.00	

L1 Amount	L1 Vendor
644000.00	Manish Electricals
2880000.00	Techno Electricals, Balaji Engineering
2850953.76	AMA Private Limited
88020.00	AMA Private Limited
30000.00	AMA Private Limited
4000.00	Balaji Engineering
14000.00	Techno Electricals
5000.00	Techno Electricals, AMA Private Limited
11125.00	Techno Electricals
6105000.00	AMA Private Limited

11.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 35 sq. mm and upto 95 sq. mm	2750.00	mtr	91525.00	200.00	550000.00	200.00	550000.00	300.00	825000.00	280.00	770000.00	550000.00	Techno Electricals, AMA Private Limited
12.00	Laying of one number XLPE insulated & PVC sheathed armored copper conductor power cable of grade 1.1 KV of following size in the existing RCC/HUME/STONEWARE / METAL/ HDPE pipe etc. as required. Above 35 sq. mm and upto 95 sq. mm	150.00	mtr	540855.00	20.00	3000.00	12.00	1800.00	30.00	4500.00	30.00	4500.00	1800.00	AMA Private Limited
13.00	Excavation of the trench in hard rock not exceeding 1.5 Mtrs. in width, and lift up to 1.5 Mtrs. including getting out the excavated soil and disposal of excavated soil as directed within a lead of 50 Mtrs.	50.00	CUM	76271.00	500.00	25000.00	600.00	30000.00	700.00	35000.00	500.00	25000.00	25000.00	Techno Electricals, Manish Electricals
14.00	Supplying and laying of following size DWG HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 16205 Part 24 (erstwhile IS 14930, Part II) complete with fitting and cutting, jointing etc. in the existing trench, complete as required. 90 mm dia (OD-90 mm & ID-76 mm nominal)	150.00	Mtr	231795.00	193.00	28950.00	165.00	24750.00	100.00	15000.00	340.00	51000.00	15000.00	Balaji Engineering
15.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required. Above 35 sq. mm and upto 95 sq. mm	20.00	Mtr	224977.00	20.00	400.00	20.00	400.00	30.00	600.00	30.00	600.00	400.00	Techno Electricals, AMA Private Limited
16.00	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE Copper conductor cable of 1.1 KV grade as required. 4 X 50 sq. mm	6.00	Each	2317950.00	1500.00	9000.00	2500.00	15000.00	3500.00	21000.00	2500.00	15000.00	9000.00	Techno Electricals
17.00	Supply of 4 x 6 sq.mm Size copper conductor PVC insulated and PVC sheathed cable from Individual Control Unit / Flash Field Unit to the fixture with MS/flexible MS CONDUIT (FOR CABLE PROTECTION) as per site requirement, connections at both ends, etc. complete as required (From Jn box to FFU)	300.00	mtr	495180.00	355.00	106500.00	290.00	87000.00	400.00	120000.00	320.00	96000.00	87000.00	AMA Private Limited
18.00	Supply of 4 x 2.5 Sq. mm Size copper conductor PVC insulated and PVC sheathed cable from Individual Control Unit / Flash Field Unit to the fixture with MS/flexible MS CONDUIT (FOR CABLE PROTECTION) as per site requirement, connections at both ends, etc. complete as required. (FFU to flash light fixture)	600.00	Mtr	353700.00	190.00	114000.00	140.00	84000.00	200.00	120000.00	180.00	108000.00	84000.00	AMA Private Limited
19.00	Laying of 35 S0MM size one number XLPE insulated and PVC sheathed, armored copper conductor power cable of 1.1 KV grade of following size in the existing cable duct / masonry trench etc. as required. (Upto 35 sq. mm)	50.00	mtr	312390.00	15.00	750.00	20.00	1000.00	30.00	1500.00	30.00	1500.00	750.00	Techno Electricals
20.00	Laying of one number XLPE insulated & PVC sheathed armored copper conductor power cable of grade 1.1 KV of following size in the existing RCC/HUME/STONEWARE / METAL/ HDPE pipe etc. as required. (Upto 35 sq. mm)	50.00	mtr	197708.00	15.00	750.00	20.00	1000.00	30.00	1500.00	30.00	1500.00	750.00	Techno Electricals
21.00	Supplying and making indoor end termination with brass double compression gland and copper lugs for 4 x 50 sq.mm size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 KV grade as required.	64.00	Each	245430.00	250.00	16000.00	100.00	64000.00	500.00	32000.00	250.00	16000.00	16000.00	Techno Electricals, Manish Electricals
22.00	Supplying and making indoor end termination with brass double compression gland and copper lugs for 4 x 6 sq. mm size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 KV grade as required.	60.00	each	197708.00	175.00	10500.00	750.00	45000.00	500.00	30000.00	150.00	9000.00	9000.00	Manish Electricals
23.00	Supplying and making indoor end termination with brass double compression gland and copper lugs for 4 x 2.5 sq.mm size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 KV grade as required.	60.00	each	184073.00	150.00	9000.00	750.00	45000.00	400.00	24000.00	150.00	9000.00	9000.00	Techno Electricals, Manish Electricals
24.00	Providing maintenance free earthing using copper bonded rod of 25 mm dia and 3 meter length and earth enhancing compound conforming to IEC 62561 1-7 including necessary excavation, inspection chamber with cover, copper strip etc as required as per NBC 2016 1 Copper/copper bonded steel rod size 40 mm dia & 4 mtr long -01No 2 Earth enhancement material -100 Kg [conforming to IEC 62561-7:2011 Lightning protection system components (LPSO) Part 7: Requirements for earthing enhancing compounds. 3 Inspection chamber (0.525 mtr X 0.525 mtr) made of brick, sand & cement including pit cover. 4 M10 x40 mm lon SS bolts and nuts- 06 no. 5 Copper strip 50 x 6 mm -2 ft. long with 6 nos suitable dia holes for termination. 6 Exothermic welding for connecting bonded rod to 50mm X 6mm terminating cu strip 7 inspection chamber CI cover-1 no	2.00	Job	450.00	6000.00	12000.00	6000.00	12000.00	20000.00	40000.00	28500.00	57000.00	12000.00	Techno Electricals, AMA Private Limited
25.00	Providing and fixing 4 mm dia copper wire on surface or in recess for loop earthing along with existing cable as required.	800.00	Mtr	5110.00	97.00	77600.00	90.00	72000.00	150.00	120000.00	90.00	72000.00	72000.00	AMA Private Limited, Manish Electricals
26.00	Providing and laying earth connection from earth electrode with 4.00 mm dia copper wire in 15 mm dia G.I. pipe from earth electrode including connection with copper thimble excavation and re-filling as required	200.00	Mtr	4140.00	255.00	51000.00	200.00	40000.00	200.00	40000.00	180.00	36000.00	36000.00	Manish Electricals
27.00	Supplying and making cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	30.00	Each	3814.00	200.00	6000.00	600.00	18000.00	5000.00	150000.00	360.00	10800.00	6000.00	Techno Electricals

Total in Figures

14203475.00

14075004.32

17194100.00

14685500.00

Lowest Amount Quoted BY: AMA Private Limited(14075004.32)

Signature Not Verified

Digitally signed by Pankaj Kumar Tiwari
Date: 2021.09.28 10:31:21 IST
Location: eProcurement System for Central PSUs