

**VADODARA DIVISION-S AND T/WESTERN RLY
TENDER DOCUMENT**

Tender No: SandT_BRC_22-23_47_SIG

Closing Date/Time: 14/04/2023 15:00

Sr.DSTE/Co-ord/BRC acting for and on behalf of The President of India invites E-Tenders against Tender No **SandT_BRC_22-23_47_SIG** Closing Date/Time 14/04/2023 15:00 Hrs. Bidders will be able to submit their original/revised bids upto closing date and time only. Manual offers are not allowed against this tender, and any such manual offer received shall be ignored.

1. NIT HEADER

Name of Work	Design, Supply, Installation, Programming, Testing and Commissioning of Electronic Interlocking (E.I) system at Kapadvanj station of Nadiad-Modasa Section along with outdoor S&T work in connection with the work of "Kapadvanj station: Converting SP class into "B" class station with Electronic Interlocking "		
Bidding type	Normal Tender		
Tender Type	Open	Bidding System	Single Packet System
Tender Closing Date Time	14/04/2023 15:00	Date Time Of Uploading Tender	14/03/2023 12:00
Pre-Bid Conference Required	No	Pre-Bid Conference Date Time	Not Applicable
Advertised Value	58626562.15	Tendering Section	WORKS N
Bidding Style	Single Rate for Tender	Bidding Unit	Above/Below/Par
Earnest Money (Rs.)	443100.00	Validity of Offer (Days)	60
Tender Doc. Cost (Rs.)	0.00	Period of Completion	11 Months
Contract Type	Works	Contract Category	Expenditure
Bidding Start Date	31/03/2023	Are Joint Venture (JV) firms allowed to bid	No
Ranking Order For Bids	Lowest to Highest	Expenditure Type	Capital (Works)

2. SCHEDULE

S.No.	Item Code	Item Qty	Qty Unit	Unit Rate	Basic Value	Escl.(%)	Amount	Bidding Unit
Schedule A-Supply Items							32451221.91	
1	A1	207.00	Per Functional Vital Bit	77311.00	16003377.00	39.73	22361518.68	
	Description:- Design, manufacture and supply of Hot Standby Architecture Electronic Interlocking (EI) system complete as per RDSO specification No. RDSO/SPN/192/2005 with latest amendment, as per technical requirement & tentative approved Signalling Plans & Diagrams. Electronic Interlocking (EI) system mainly consisting of Central Processing Equipment, Interface Equipment/Relays etc as per requirements, Dual operator Industrial Grade VDU panel (42" 4K LED) with Redundancy (Hot stand-by dual VDU Normally one system online and other system in standby mode), All Interfacing Relays suitable for EI, interconnecting cables and Jumper wires, Industrial grade maintenance Terminals (42" 4K LED with UPS minimum 1 hr back up), required power supply converters for EI equipments, Housing for EI equipments and Relay Racks, fuses, screw less disconnecting type terminals, fixture mounting arrangements and accessories necessary to make the EI system functional as per approved signaling plan. The tenderer should furnish complete details of cards/ modules/ sub-modules connectors etc. for each station. Supply of 10% Essential spares of the EI equipments subject to minimum one of each type mainly consisting of processor, cards/ module, interface relay etc. (For Station with routes less than 100) (Unit of this item may be read as Per Vital Bit of Station)							
	A2	1.00	Numbers	35302.00	35302.00	39.73	49327.48	

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2	<p>Description:- Supply of documents (Manuals for Installation, Testing, commissioning and maintenance of the system) (One set consist of 6 set of following drawings per Station). (i) Manual for installation, Testing, Commissioning and maintenance of the system for Technicians / Jr. Engineers. (Installation & Maintenance level) (ii) Functioning and system overview (Higher management level). (iii) Completion documents as per special conditions of contract. iv) Design & Supply of circuits and plans to suit layout given in the signaling plan for Hot Standby Architecture Electronic Interlocking (EI) system. All plans and wiring diagram shall be prepared on Auto cad Drawing and supplied with CD. This will include supply of Control cum Indication panel / VDU diagram, Square Sheet, Wiring Diagrams (Application Logic and Interface Circuit), Fuse Analysis, Contact Analysis, Tag Block Analysis, Power Supply Distribution / Power equipment arrangement (with program switch) Diagram, Auto Change over diagram (if supplied by the contractor), and all other relevant drawings. NOTE: The contactor shall initially supply 1 set of documents (Paper Prints) for approval of Railways. He shall ensure the each sheet has a block for signature of Railway official as well as a block for signature of firm, duly signed by the authorised signatory of the firm. The name of the work as given by Railways shall be written on every sheet under the work column. All the drawing shall be supplied in a good quality folder for each station. After approval of documents by Railways, the contractor will make copies of the approved documents and return the approved document to Railways. The contractor will then make necessary correction to Application Logic software duly incorporating Railways' alterations/ corrections/ comments, if any. After Complete Testing / Commissioning of the station, tracings of completion documents as mentioned above will be submitted to Railways for approval. Along with the Completion application logic, difference report (showing addition & deletion in different colours) as compared to earlier approved application logic should also be submitted. After approval of completion application logic by Railways, 5 sets of copies of completion tracings will be submitted to Railways.</p>						
3	A3	1.00	Set	110490.00	110490.00	39.73	154387.68
	<p>Description:- Instruments and Tool Kits required for Trouble Shooting and repair of hardware and software for EI system should be supplied for stations as per schedule item 1 above. (This includes tools required for EI maintenance sorts of crimping, insertion, removal, general purpose tools like screw drivers, spanners, PCB extractor, temp. controlled soldering iron, wire cutter, nose pliers etc. & measuring instruments with carrying case/ holders/ cabinet for technicians/ J.E. for testing, Maintenance and repair at site). Each set comprises of the following :- * Crimping tool for all types of special cable assembly used in EI system. * Insertion tool for all types of special cable assembly used in EI system. *Removal tool for all types of special cable assembly used in EI system. * Digital multimeter (Fluke 111 or better) * Steel cabinet/ Almira, Size: 1980mm height, 915 mm width and 485 mm depth (Godrej Make/Jalaram) of good quality to store tool, spare cards and documents. * Steel Book rack Size: 1850mm height, 900 mm width and 316 mm depth for keeping documents. (Godrej Make/Jalaram) * Clamp Earth Tester. * Clamp Current Meter.</p>						
4	A4	1.00	Job	111143.00	111143.00	39.73	155300.11
	<p>Description:- "Earthing of EI equipment, relay racks and Power equipment etc to be done along with the supply of all requisite materials. Earthing shall be in the form of Ring Earth conforming to RDSO specification No. RDSO/SPN/197/2008 (with a min. of 6 maintenance free earth electrodes) & RDSO Drawing issued under Railway Board letter No. 2010/Sig./SGF/EI (Ansaldo) Dated 22.06.11, made using copper rings with earth resistance less than 1 ohm. The earthing shall be maintenance free & earth enhancement compound should be used. The ring earth shall be connected to copper flat of size 25x3 mm in the relay room and IPS room. This copper flat shall be fixed on the wall to the entire breadth of the Relay room and IPS room as an earth bus bar and all earth connections shall be taken from it. A, B, C, & D class protection shall be provided for all EI equipment. Note:- This will also cover the earthing & necessary protection of EI equipment as per details given in the scope of work of Special Condition of Contract and other requirement given in Chapter 5 & Pre-commissioning check list of EI system. "</p>						
5	A5	6.00	Numbers	19974.00	119844.00	39.73	167458.02
	<p>Description:- Cable termination racks as per Drg. no. CSTE 5004, 5005, 5006 complete along with fitting arrangements and also with arrangement for fixing four 8-way terminal strips/ Screw less terminals on each row having 16 such rows. Supply of 8 way terminal strips/ Screw less terminals not covered under this item. Cable termination rack shall be Powder Coated.</p>						
6	A6	0.50	Kilometre	4613.00	2306.50	39.73	3222.87
	<p>Description:- PVC insulated Railway Signaling Indoor Single core wire conforming to IRS 76/89 (Amd3) or latest. Note: - Wire Colours shall be decided by engineer - in - Charge. Single core multi-strand wire 0.5 sq.mm. (16 conductor each dia. 0.2mm), as per IRS 76/89 (Amd3).</p>						
7	A7	0.50	Kilometre	34121.00	17060.50	39.73	23838.64
	<p>Description:- Flexible cable (Power wire), multi-strand copper conductors cross section 1x6 Sq.mm.(85 conductor each diameter 0.30 +/- 0.01) as per IS 694/1990 with insulation thickness of 0.80 mm nominal conductor resistance 3.30 ohms/km and test parameters are as per IRS(S)76/89.</p>						
8	A8	0.50	Kilometre	109792.00	54896.00	39.73	76706.18
	<p>Description:- Flexible cable (Power wire), multi-strand copper conductors cross section (1x16Sq.mm).101 Conductors each diameter 0.45 + 0.01 as per IS 694/2010 with insulation thickness of 1.2mm nominal conductor resistance 1.127 Ohms/Km and test parameters as per IRS(S) 76/89.</p>						
9	A9	0.50	Kilometre	125023.00	62511.50	39.73	87347.32

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	Description:- Flexible cable (Power wire), multi-strand copper conductor's cross section 25 Sq. mm (0.4x196) as per specn. IS 694/2010 with latest amendment, and test parameters as per IRS(S) 76/89.						
10	A10	8.00	Numbers	4804.00	38432.00	39.73	53701.03
	Description:- Program switches, snap action, base mounting type along with acrylic cover and mounting bracket, 25A, 9 poles, and 3 positions make Siemens / Thakur or Similar.						
11	A11	8.00	Numbers	5833.00	46664.00	39.73	65203.61
	Description:- Fire Extinguisher CO2 type (capacity 7 kg.) with trolley.						
12	A12	1.00	Numbers	482525.00	482525.00	39.73	674232.18
	Description:- Data logger system for Railway S&T installation As per spec. IRS: S-99 2006 (Amdt-3) or latest. Central Monitoring Unit (Hardware Configuration as per Annexure) with UPS minimum 06 Hrs battery backup and required Software tools. This also includes supply of one no composite computer & printer table (Godrej work station table) for keeping Processor module and one no Godrej make operator chair model PCH7001. 1024 digital and 32 analog inputs.						
13	A13	1.00	Numbers	267961.00	267961.00	39.73	374421.91
	Description:- "Failure Analysis System or Central Monitoring Unit with Printer. As per technical specification IRS:S-992006 (Amdt-3) or latest. The specification of Failure Analysis System should be got approved from the Engineer in charge before supply. Note: The Specification of Failure Analysis System shall be as per technical specification given in contract Agreement or higher version as approved by Engineer In-Charge. (Technical specification shall be provided in tender documents.) "						
14	A14	1.00	Numbers	42969.00	42969.00	39.73	60040.58
	Description:- Failure Analysis & Fault Diagnostic software for data logger of 1024 digital inputs / 4096 digital inputs.						
15	A15	1.00	Numbers	26250.00	26250.00	39.73	36679.12
	Description:- 750 VA Off line UPS with battery backup 3 Hours for Failure Analysis System of reputed make as per Engineer in-charge.						
16	A16	8.00	Each Track	25725.00	205800.00	39.73	287564.34
	Description:- Fuse auto changeover system for used in Railway Signaling System as per RDSO/SPN/209/2012 rev.1 with latest amendments.. One Automatic changeover Unit comprise 32 nos. of external Non Deteriorating Type or 'G' type fuses from 0.6 Amp to 4 Amp capacities which are in signaling circuits. System shall have 8 cards with monitoring arrangement of 4 fuses in one card. (The unit may be read as Per Module)						
17	A17	3.00	Each	42426.00	127278.00	39.73	177845.55
	Description:- Fuse auto changeover system for used in Railway Signaling System as per RDSO/SPN/209/2012 rev.1 with latest amendments. One Automatic changeover Unit comprise 24 nos. of external Non Deteriorating Type or 'G' type fuses from 4 Amp to 10 Amp capacities which are in signaling circuits. System shall have 6 cards with monitoring arrangement of 4 fuses in one card.(The unit may be read as Per Module)						
18	A18	1.00	Numbers	12254.00	12254.00	39.73	17122.51
	Description:- Professional AC/DC clamp meter 3 ¼ digit , true RMS measurement, For Measurement of DC/AC currents up to 1000A, Voltage up to 600V, resistance up to 40 M and frequency up to 1 MHz with set of leads & carrying case. Model - DCM39A or equivalent/ higher make Motwane/Stanlay/Fluke/Megger						
19	A19	1.00	Numbers	45349.00	45349.00	39.73	63366.16
	Description:- "Transient Surge Suppressor Electronic Grade Surge protective device (Surge) current Capacity 50 KA as per following Specifications: - 1) Connection Type: Parallel, 2) Nominal discharge current: 3KA, 3) Response Time : <0.5 nanoseconds, 4) Status Indication: LEDs, Dry Contacts. "						
20	A20	1.00	Numbers	1160438.00	1160438.00	39.73	1621480.02
	Description:- SMPS based Integrated Power Supply System for Station with MSDAC as per RDSO/SPN/165/2012 version -3 or latest and Drg No. CSTE/6155/ 4 of 7. This includes transportation, installation and Commissioning of Integrated Power Supply System. (NOTE: The batteries of IPS shall be supplied just before commissioning or on instructions of Engineer-in-charge)						
21	A21	3.00	Numbers	6263.00	18789.00	39.73	26253.87
	Description:- DTMF based Electronic Block bell & Telephone equipment as per technical specification and requirement of Clause in contract agreement.						
22	A22	150.00	Numbers	26.00	3900.00	39.73	5449.47
	Description:- D type fuse block non indicating type low voltage non detorating fuse base suitable for fuse link of capacity 2A/6A/10A as per specification IRS:S-80/92 or latest . Quantity break up of each type of fuse block will be specified by Engineer in-charge.						
23	A23	150.00	Numbers	27.00	4050.00	39.73	5659.06
	Description:- D type fuse link non indicating type low voltage non detonating, capacity 2A/6A/10A as per specification IRS:S-80/92 or latest. Quantity break up of each type of fuse block will be specified by Engineer in-charge.						

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24	A24	1.00	Set	352016.00	352016.00	39.73	491871.96
	Description:- Self contained, Air cooled, Diesel Generator set along with canopy, 15 KVA, single Phase of Kirloskar or other reputed make with sound proof enclosure and A.M.F. with following sub-components: a) a) Engine: Air cooled, diesel engine developing minimum 20 BHP at 1500 rpm with accessories. Suitable capacity battery make Exide/ Prestolite/ Standard (12V/ 75 AH minimum) with leads for starting arrangement. b) Alternator 15 KVA single phase 1500 rpm, 0.8 power factor, 50HZ, brushless make CGL/KEC/LS/Mecc. Alt.. c) Engine and alternator close panel equipped with voltmeter, ammeter, frequency meter, MCB etc. d) Minimum 150 liter Fuel Tank with continuous running capacity. f) Acoustic enclosure. CPCB approved. e) A.M.F. Auto mains Failures panel consisting Micro processor based make: PECO/G - TECH / Utopia. AMF Panel can be inside or outside DG set for Auto/Manual operation.						
25	A25	8.00	Numbers	5850.00	46800.00	39.73	65393.64
	Description:- "Key Lock Relay with different ward combinations (Three ward plates to be supplied with each relay). Siemens Make working on 60V DC, AC Immunized or functional equivalent without base plates. Key ward shall be specified by Engineer In-charge as per requirement "						
26	A26	10.00	Numbers	2708.00	27080.00	39.73	37838.88
	Description:- Desk type Electronic Magneto Telephone as per spec No IRS/TC-79/2000 or with latest amendments.						
27	A27	80.00	Numbers	4735.00	378800.00	39.73	529297.24
	Description:- DC neutral line relay QNA1K (QSA3), AC immune, DC neutral line 24V, 6F/6B contacts, complete with plug board, retaining clip and connectors. Conforming to BRS 930A, (as applicable) IRS:S34 & IRS:S23 or latest.						
28	A28	10.00	Numbers	9482.00	94820.00	39.73	132491.99
	Description:- "Colour Light Signal Complete. This includes: - (1). Post Tubular 140 mm Dia, as per IRS: S-6/81 or Latest & RDSO Drg. No. SA-24625 (Advance). (2). CI Base (As per IRS S-10 & RDSO Drg. No. 2011/M with latest assembly). (3). Pinnacle. (4). Ladder Assembly, as per RDSO Drg. No. SA-23156, with Base, Ladder Guards, Platform, Front Maintenance Platform, MS Supporting bracket to Support Ladder. (5). Signal Front Staging Complete Assembly for CLS Unit. (6). Signal back staging as per extent WR Practice. "						
29	A29	10.00	Numbers	158.00	1580.00	39.73	2207.73
	Description:- Pad locks Godrej make, Hardened Nav -Tal 7 lever, 65mm dia with common key or similar product having same feature & technical data.						
30	A30	4.00	Numbers	23520.00	94080.00	39.73	131457.98
	Description:- Non Metallic (FRP) colour light signal housing multi unit type for railway signaling suitable for RE area TWO Aspects. Complete without lenses, lamps and signal transformer as per RDSO DRG. No. SA 23001/A/M Adv. Alt- S and as per SPEC. No. RDSO/SPN/194/2006 (Vol. 1.0) or latest and FRP material as per RDSO SPEC. No. RDSO/SPN/151/1997 or latest.						
31	A31	6.00	Numbers	24640.00	147840.00	39.73	206576.83
	Description:- Non Metallic (FRP) colour light signal housing multi unit type for railway signaling suitable for RE area THREE Aspects. Complete without lenses, lamps and signal transformer as per RDSO DRG. No. SA 23001/A/M Adv. Alt- S and as per SPEC. No. RDSO/SPN/194/2006 (Vol.1.0) or latest and FRP material as per RDSO SPEC. No. RDSO/SPN/151/1997 or latest.						
32	A32	2.00	Numbers	2241.00	4482.00	39.73	6262.70
	Description:- Calling ON Signal Unit with Brackets & Fixing accessories. Calling On Signal Unit shall conform to RDSO Drg no 24351(Adv) Alt1 suitable to LED Signal Lighting Unit.						
33	A33	2.00	Numbers	3921.00	7842.00	39.73	10957.63
	Description:- Offset brackets for Main Signal, made of tubular steel, outer diameter 140 mm, thickness of pipe 4.5 mm. horizontal length of pipe 545 mm & vertical length of pipe 324 mm with fixing arrangement on Main Signal post as per Drawing No SW/554/G/R						
34	A34	2.00	Numbers	17429.00	34858.00	39.73	48707.08
	Description:- " Supply of Junction type Route Indicator - Junction route indicator unit 1 way (Without Lenses & Holder) as per Drg. No. RDSO SA 23401 suitable for LED Signal Lighting Unit & as IRS:S-66/84 amndt-1 or latest. (Supply of LED Unit is not covered in this item) "						
35	A35	10.00	Numbers	3776.00	37760.00	39.73	52762.05
	Description:- "Position Light Shunt Signal Unit Complete with Post (made of GI Pipe of 80 mm Diameter Medium Class IS Spec. No. IS: 1239 Pt. 1/1990, Base, Hood, Cover etc as per Drg. No. SA-23840 suitable for LED Signal Lighting Unit. (Supply of LED Unit is not covered in this item) "						
36	A36	2000.00	Numbers	60.00	120000.00	39.73	167676.00
	Description:- ARA Terminal blocks with links made of PBT Spec No.IRS/75/2006(Rev - 2) with latest amendments and RDSO Drg.No.SA-23741A Alt.4.						
	A37	4000.00	Numbers	48.00	192000.00	39.73	268281.60

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37	Description:- Disconnect Terminal Block, Screw less type, as per RDSO Spec. No. RDSO/SPN/189/2004. With latest amendments. - Disconnect Terminal Block, Screw less type, 4-wire front entry (Two in-put & Two out-put) The colour will be decided by Engineer - in - Charge. (Preferably In Blue, Red & Grey Colors in the ratio of 1:2:3)						
38	A38	400.00	Numbers	9.00	3600.00	39.73	5030.28
	Description:- Supply of End plate for above item (37) 2.5mm/0.091 in thick as per site requirement.						
39	A39	800.00	Numbers	9.00	7200.00	39.73	10060.56
	Description:- Supply of End Stopper for above item (37) 10mm/0.0394 in width as per site requirement.						
40	A40	80.00	Metre	94.00	7520.00	39.73	10507.70
	Description:- Supply of Carrier Rails for above item (37) 35mm x 7.5mm, 1mm/0.039 in thickness un-slotted type as per site requirement.						
41	A41	4000.00	Numbers	14.00	56000.00	39.73	78248.80
	Description:- Markers strip for above item (37)						
42	A42	14.00	Numbers	73004.00	1022056.00	AT Par	1022056.00
	Description:- SS Location box made of Spl. Grade SS 304 of size as per drg. No. DRM/SG/948 dt. 26.04.2011 (Single (Large) app. Case). Manufacturer's certificate in regard to grade of stainless steel and its protection level shall be submitted at the time of supply.						
43	A43	5.00	Numbers	63420.00	317100.00	AT Par	317100.00
	Description:- SS Location box made of Spl. Grade SS 304 of size as per drg. No. DRM/SG/945 dt. 03.03.2011 (Half app. Case). Manufacturer's certificate in regard to grade of stainless steel and its protection level shall be submitted at the time of supply.						
44	A44	24.00	Numbers	7834.00	188016.00	39.73	262714.76
	Description:- Maintenance Free Earth Electrode of length 3m, including supply of 3 bags of Earth enhancement material for earthing (20KGs /bag) for each electrode & other accessories as per Drg. No. SDO / RDSO/ E&B/001 and RDSO Spec No. RDSO / SPN/197/2008.						
45	A45	60.00	Metre	502.00	30120.00	39.73	42086.68
	Description:- Medium Class G.I. Pipes to IS : 1239 (Pt.I)-2004 or latest ; 100mm dia. (int. dia) 3.65 mm+/- 10% thick with coupling. G.I. pipes shall have ISI mark on it and contractor should submit manufacturer's test certificate of G.I. pipes.						
46	A46	180.00	Numbers	1580.00	284400.00	39.73	397392.12
	Description:- "Double Walled Corrugated (DWC) HDPE Pipe with associated collars etc. as per RDSO Specification No. RDSO/SPN/204/2011 or latest anti-rodent & anti-oxidant and non flame propagating type in 6 meters straight length and of size 120 mm outer dia.& 103.5 mm inner dia. (The manufacturers, suppliers must produce valid IS license and should be certified under ISO 9000 and shall submit copy of certificate). One of the following coupling arrangements should also be supplied with each pipe as per the site requirement. 1) Suitable snap fit coupler with rubber 'O-Ring 2) Spacers 3) Tees 4) Bend, 5) End-cap (The total quantity of above items is equal to no. of pipes supplied.) DWC pipe shall be marked at every 1 mtr length in such a way that manufacturer's name, vender name and year of manufacture can be easily identified. "						
47	A47	24.00	Numbers	4084.00	98016.00	39.73	136957.76
	Description:- Phenolic laminated Sheet, grade P3 in standard size of 1220 X 1220 x 10 mm as per spec. No IS 2036 of 1995 or latest. Test report of manufacture to be supplied						
48	A48	2.00	Set	380898.00	761796.00	39.73	1064457.55
	Description:- Electrically Operated Lifting Barrier complete set suitable for 24V DC supply as per RDSO Spec. SPN/208/2012 with latest amendment. One set consisting 02 Nos of Barriers of length 09.76 Mtrs. along with Spares & tool kit mentioned in RDSO Spec. SPN/208/2012 clause 10.1 & 10.2.						
49	A49	4.00	Set	7245.00	28980.00	39.73	40493.75
	Description:- Dual tone bell / buzzer with flasher arrangement 25W horn, (Make of any ISI approved firm) working voltage as per circuit design						
50	A50	4.00	Set	1514.00	6056.00	39.73	8462.05
	Description:- Road warning Flasher kit for LC gate as per circuit design						
51	A51	2.00	Set	120173.00	240346.00	39.73	335835.47
	Description:- MS Sliding type mechanical Boom barrier assembly 11 to 12 Meter Long, movement drive mechanism, resetting & supporting stand suitable for Mechanical/Electrical level crossing gate as an emergency arrangements as per Drg.						
52	A52	8.00	Numbers	1781.00	14248.00	39.73	19908.73
	Description:- Miniature 'E' type lock complete with keys as per RDSO Drg. No. SA 3473, 3373 & spec. IRS(S) 30/64. Ward to be specified by Engineer - in - charge.						

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Schedule B-Execution Items							26175340.24	
1	B1	1.00	Job	476922.00	476922.00	39.73	666403.11	
	<p>Description:- "Installation, wiring, programming, testing and commissioning of EI equipment supplied as per supply item in schedule 'A' including transportation from Consignee's depot to site. The works and materials for installation, wiring, testing and commissioning, grouting, cutting of floors, walls, refilling of the same, re-plastering, required CC/ masonry works, fixing/ placing/ laying of insulated ladders/ casing-capping/ cable trays/ RCC/GI pipes / Cables, termination of cables with lugs/ connectors, painting,/ lettering are to be provided/ done by the contractor for the equipments supplied vide Item of Schedule ""A"" of this contract. This also covers the networking of built in EI Data loggers of all the stations to monitor the system to any other places where desired by Engineer-in-charge. Note: Installation shall be comply to RDSO Technical Advisory Note No STE/E/TAN/3012 dtd. 28.08.2014. Installation, wiring, programming, testing and commissioning of Operator VDU in Hot stand-by with Redundancy. Any Equipments/cards/Modules required for Hot stand-by with Redundancy shall be supplied & Installed by the Contractor. Note:- This also includes supply of Two nos. of composite computer & printer table (Godrej work station table) for keeping VDU and one no Godrej make operator chair model PCH7001. Termination of indoor/ PIJF cables in relay room on relays, tag blocks, CT racks as per approved wiring diagram including alterations/ modifications as required at site. Soldering to be done at all required termination. Dressing/ lacing of wiring shall be done neatly with help of dressing thread / plastic self lock strip of suitable size. The tools/ equipments/ materials/ simulation boards required for testing shall be supplied / fabricated by contractor. this included replacement of modules/ cards/ LEDs/ equipments going defective during testing. Necessary power supply boards with required capacity plugs, sockets, surge & lightning protection boxes shall be supplied and installed by the contractor. 230V supply shall be arranged by Railways. In case supplies are required to be extended, from Power room / relay room then same shall be extended by the contractor with his own materials such as 1X16 sq mm wires, cables, lugs, RCC/GI pipes, insulated ladders etc. After ST/LT testing, Factory Acceptance Tests (FAT) & Square Sheet testing system should be fault free while submitting to Railways, otherwise suitable necessary action can be taken by Engineer-in-charge. "</p>							
2	B2	30.00	Man-Days	972.00	29160.00	39.73	40745.27	
	<p>Description:- Training of Technician/ Jr. Engineer for installation, Commissioning, Testing, Repairs & Troubleshooting of EI system. (Hard copies of training material/ course modules to be given to each participant).</p>							
3	B3	6.00	Numbers	7633.00	45798.00	39.73	63993.55	
	<p>Description:- Installation of Cable Termination Racks Assembly complete including wall supports, scaffolding, 8 way/ARA terminals /Screw less connectors, Tag blocks & other necessary accessories etc. The work shall be done as per approved plan, extant practice on WR & the instruction of Rly engineer at site.</p>							
4	B4	1.00	Numbers	17948.00	17948.00	39.73	25078.74	
	<p>Description:- "Installation, wiring, testing and commissioning of Data logger complete along with accessories using Contractors own wiring & fixing materials as per following configuration. (It includes loading of NETWORKING software, networking of data logger, installation of FEP & Fault diagnosis system). The requisite communication cable/channel for networking will be arranged by Railway. 1024 digital & 32 analog inputs / 4096 digital & 32 analog inputs "</p>							
5	B5	11.00	Each	778.00	8558.00	39.73	11958.09	
	<p>Description:- Installation wiring testing and commissioning of Fuse change over system (FACS). This includes provision of common Buzzer & indication at ASM Room & ESM Duty Room and painting of fuse details. This also includes fabrication of frame for installation of FACS at Station/ LC gate where installation of relay racks not feasible. (unit may be read as Each Module)</p>							
6	B6	1.00	Numbers	121931.00	121931.00	39.73	170374.19	
	<p>Description:- Supply and installation of Earth Leakage Detector as per RDSO/SPN/256/2002 with latest amendments. The basic detector unit shall comprise of 12 channels, for use on signaling circuits of 110V AC/DC and/or 60V/24V/12V DC as ordered by purchaser. If the detector is required for less number of channels, dummy plates shall be provided. For additional requirement add on /expendable cabinet may be used. The voltage specified shall be provided with + 25% and - 10% tolerance.</p>							
7	B7	1.00	Numbers	1234.00	1234.00	39.73	1724.27	
	<p>Description:- Supplying & fixing of crank handle box 450 x 250 x 150 mm made of 12mm thick teakwood with a glass front and padlocking and sealing arrangements per std practice. Pad lock to be supplied by the contractor. All material i.e. teakwood, handle, hinges, glass sheet of 3 mm thick to be supplied by the contractor. Box to be polished and description to be as per instructions of Engineer in - charge.</p>							
	B8	1.00	Numbers	90897.00	90897.00	39.73	127010.38	

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8	<p>Description:- "Installation, Wiring and testing of Integrated Power Supply System. This includes power distribution connection to bus bars and relay racks in the room with contractor's own wiring materials and fabrication and fixing of AC/DC power distribution board made on 10mm thick Phenolic hylam sheets or any standard make with connections suitable for 32 A. Wiring to be done considering site requirement, depending upon the load with suitable wires, lugs & glands as per instructions of Engineer-in-charge. The work includes installation of Thermo flasher relay, ELD's, fixing & wiring of change over switch (program switch) for selection of DG set supply (DG1 & DG2) and wiring of change over switch (program switch) for selection of mains or DG supply. This item also includes supply & fixing of ladder along the wall for carrying power supply wires/cables from IPS room to Relay room/power room etc. Any masonry work required will be carried out by contactors own material. "</p>						
9	B9	10.00	Sqm	3531.00	35310.00	39.73	49338.66
	<p>Description:- Supply and fixing of compact laminated sheet 20 mm for keeping S&T equipments as per instructions of Engineer at site. Commercially available thickness will be accepted as approved by Engineer in charge. This item includes supply of fixing materials like Nut, Bolts, Screw, Nails etc. Table for keeping axle counter resetting box and block instruments etc. can also be go fabricated under this item as per the design given by engineer in charge.</p>						
10	B10	1.00	Numbers	285770.00	285770.00	39.73	399306.42
	<p>Description:- Supply, Erection, Testing and Commissioning of Automatic Fire Detection and Alarm System (AFDAS) as per RDSO Specification RDSO/SPN/NEW/2010 Version 3 or Latest. To detect fire/fire like situation, generate audio-visual alarms and send SMS to pre-specified users in such situations. It should be capable of generating requisite command to activate Automatic Fire suppression system, if required. It shall have provision of connecting to data logger. The system shall consist of: 1.A control panel for displaying current status of the system, acknowledging alarms and other functions as per RDSO specs. 2.Heat and Smoke multi sensors for non-air conditioned rooms. 3.Aspirating (air sampling) type smoke detectors for air conditioned rooms. 4.Linear Heat Sensing (LHS) cable or linear heat detector system along with its interface module for cable trays and bunches. 5.Manual Call Points at entry and exit points. 6.UV & IR flame detectors for Diesel Oil Storage rooms. Note a) If more than one control panels are provided, then they should be connected to a central control panel. b) The number of detection points/ sensors and length of LHS cable shall be decided as per site requirement.</p>						
11	B11	1.00	Numbers	9655.00	9655.00	39.73	13490.93
	<p>Description:- Supply & installation of Test board (LED, Pin tool type) for relay Room as per as per Drg No RST/C/105 A & B</p>						
12	B12	15.00	KVA	692.00	10380.00	39.73	14503.97
	<p>Description:- Installation of Diesel generator set. This includes Casting of vibration free foundation, installation of control panel, outlet for exhaust, Laying of power cable from D.G. set to change over switch and wiring of D. G. set & control panel. Laying of cable/wires should be carried out in HDPE duct. This includes supply of all wiring, fixing & termination material of approved make required for the above work. (unit of this item may be read as Per KVA)</p>						
13	B13	11.00	Numbers	25080.00	275880.00	AT Par	275880.00
	<p>Description:- "Fixing of Clamp Type 220mm Electrical Point Machine on the extended sleepers at points as per std. practice and as per RDSO Drg No. SA 91 51-52 or 9710 or 9161 as per section of rails used. Item includes fixing switch extension bracket, providing insulation for switch extension bracket, fixing ground connection, adjusting opening of the switches and adjusting the point machine with crank handle. The item also includes : (i) Complete material for installation like ground-connections, switch extension brackets, point insulation material, I pipes, wiring materials, various fixing nuts & bolts including castle nuts, spring washers (ii) All smithy & fitting works required at site for complete installation. (iii) Installation of gauge tie plate & providing insulation for gauge tie plate (Insulation in William Stretcher Bar will be Provide by Railways). (iv) Wiring inside the point machine, insertion and termination of tail cable in point machine and junction boxes / location box /cable hut as per extent practice on WR and the instruction of Railway Engineer at site. (v) Supply and fixing of suitable size GI pipes with flange for taking cable into point machine. Note ; The ground connections shall be suitable to the Point Machines as specified by Engineer-in-charge and shall be suitable to the point lay out i.e. 60 Kg. / 52 Kg / 90R as per yard layout. Electrical Point Machine and M-6 / Screw less terminals will be supplied by Railways / covered in Schedule separately "</p>						
14	B14	8.00	Numbers	1427.00	11416.00	39.73	15951.58
	<p>Description:- Fixing of KLCR relays in field in ASM office.All material required will be supplied by contractor. (Supply of KLCR relays covered in Schedule A)</p>						
15	B15	10.00	Per Telephone	80.00	800.00	39.73	1117.84
	<p>Description:- Wiring, installing of Magneto / DTMF telephone in ASM office, at locations, Relay Room, Point locations on both directions and siding Point Control locations as per instructions of Engineer-In-Charge for traffic purpose.</p>						
16	B16	10.00	Numbers	6477.00	64770.00	39.73	90503.12
	<p>Description:- Excavation and Casting of foundation for main signal post as per CSTE/3122 (WR) with contractor's own materials including cement and anchor bolts of standard size. The required scaffolding Ferma etc for Casting of foundation will have to be brought by the contractor at his own cost.</p>						

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17	B17	2.00	Numbers	2836.00	5672.00	39.73	7925.49
	Description:- Erection of CLS Post with base and signal unit on top or on OFF set Bracket, fixing of front and back staging, ladder and guards, signal name plates / boards if any with contractor's own brackets and fixing materials. This also includes erection of auxiliary signals like calling on, shunt signal if any. The work shall be done as per instructions of Rly engineer at site. It also includes provision & fixing of maintenance platform as per design given by Engineer -In-Charge at site. The Item includes cutting of Signal post if required by Site In charge. - 2/3/4 aspect signal unit mounted on offset bracket with junction type route indicator 1/2/3 on multilamp lamp route indicators mounted on signal post						
18	B18	8.00	Numbers	1922.00	15376.00	39.73	21484.88
	Description:- Erection of CLS Post with base and signal unit on top or on OFF set Bracket, fixing of front and back staging, ladder and guards, signal name plates / boards if any with contractor's own brackets and fixing materials. This also includes erection of auxiliary signals like calling on, shunt signal if any. The work shall be done as per instructions of Rly engineer at site. It also includes provision & fixing of maintenance platform as per design given by Engineer -In-Charge at site. The Item includes cutting of Signal post if required by Site In charge. - 2/3/4 aspect signal unit mounted mounted directly on signal post						
19	B19	10.00	Numbers	1075.00	10750.00	39.73	15020.98
	Description:- Fabrication and fixing of Signal Number Plate(CSTE Drg No CSTE/6186) , 'A' Marker (Drg No. CSTE/6180), 'AG' Marker (Drg No. CSTE/6181), 'P' Marker (Drg No. CSTE/6182), Arrow Marker (Drg No. CSTE/6183), 'G' Marker (Drg No. CSTE/6184), 'C' Marker (Drg No. CSTE/6185). marker disk on signals as per standard practice All material required for this work shall be supplied by Contractor.						
20	B20	80.00	Numbers	300.00	24000.00	39.73	33535.20
	Description:- Fixing & wiring of QNA1 / QNA1K relays for GPR Circuit in apparatus case as per Standard practice. Fixing and wiring material shall be supplied by the contractor.						
21	B21	2.00	Numbers	2043.00	4086.00	39.73	5709.37
	Description:- Fixing of Calling-on Signal/A-Sign/AG-Sign unit on signal post. The item includes fixing of Co- On signal /'A' sign/ 'AG' sign unit on signal post with bracket, hood etc. Item includes supply bracket & fixing materials etc. by the contractor. The item also includes termination of cables & wiring inside Co- On signal /'A' sign/ 'AG' sign unit as per standard practice.						
22	B22	10.00	Numbers	4558.00	45580.00	39.73	63688.93
	Description:- Excavation and Casting of foundation for Shunt Signal as per Drg. No. CSTE/6090 with Contractor's own materials including Cement and Anchor Bolts of Standard Size. The required scaffolding, Ferma etc for Casting of foundation will have to be brought by the Contractor at his own cost.						
23	B23	10.00	Numbers	1564.00	15640.00	39.73	21853.77
	Description:- Erection of Position Light Shunt signal with Base, Post, Signal unit and fixing of Number Plates. The work shall be done as per instructions of Rly engineer at site.						
24	B24	6000.00	Numbers	11.00	66000.00	39.73	92221.80
	Description:- Fixing of ARA Terminals /Screw less connectors and fuse blocks on phenolic laminated sheets and fixing by stainless steel/brass nuts & bolts. This includes provision of two additional holes on the board on either side for cable conductor entry.						
25	B25	80.00	Numbers	361.00	28880.00	39.73	40354.02
	Description:- Supply and installation of RCC cable route marker engraved and painted on both side along the route every 50M and route diversion as per Drg. No 4014/00/CC4 or latest/ Stone marker.						
26	B26	1600.00	Numbers	331.00	529600.00	39.73	740010.08
	Description:- Supply and laying of Half Round RCC pipes & collars of 150 mm internal dia (1 meter + 1 meter long) along with collars as per IS No. 458/2003 of NP type						
27	B27	800.00	Numbers	634.00	507200.00	39.73	708710.56
	Description:- Supply and laying of Half Round RCC pipes & collars of 300 mm outer dia & 250 mm internal dia (1 meter + 1 meter long) along with collars as per IS No. 458/2003 of NP type						
28	B28	1500.00	cum	241.00	361500.00	39.73	505123.95
	Description:- Digging of trench 1.2 M deep from rail flange/ road level and, 0.3 Mtrs to 0.6 Mtrs wide and back filling after placing of DWC/ RCC/GI pipe. (Placing of DWC/RCC/GI pipe covered separately).The ballast disturbed be screened and dressed as required by Engineer-in-charge or his representatives and road tarred immediately. For track crossing, Drg. No.CSTE/3644 Pg.7 of 11 and for Road Crossing, Drg. No. CSTE/3644 Pg. 5 of 11 are to be followed.						
29	B29	500.00	Metre	1057.00	528500.00	39.73	738473.05

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29	<p>Description:- "Horizontal direction drilling/boring without damage of surface road using Auger Machine. The bore shall be 150 mm dia & shall be done at the depth of minimum 1200 mm from the ground level. The ground level shall be considered ignoring the bank height of the bank of the road. The length of the bore shall be minimum 4 Mtrs long. this include insertion of different dia DWC pipe/ GI pipes coupling etc. as per direction of Engineer In charge. Note:- Pipe will be supplied by railway. Contactor shall provide all material required for boring and adequate nos. of labours for proper laying of cables into the bore. Cable shall be laid cautiously so that it should not get damage due to rough handling & pressure on cable. "</p>						
30	B30	1140.00	Metre	26.00	29640.00	39.73	41415.97
	<p>Description:- Placing of DWC/RCC/GI pipes along with collars in trenches at places of track and road crossings, platform cuttings etc.</p>						
31	B31	48000.00	Metre	8.00	384000.00	39.73	536563.20
	<p>Description:- Laying of S&T Cables of various cores/ pairs/ quads in trenches/ GI pipes/ RCC pipes/ DWC pipes/ Trunking. This also includes laying of cables in track crossings & road crossings. Item includes provision of labels of coloured plastic adhesive tapes or any other identifiable material on each cable to give the cable number at each G.P.(Cables will be maggered before and after its laying by contractor under supervision of Railway Representative and he will submit the maggering report of each testing). Length of the cable laid includes the length of the cable coiled for termination purposes.</p>						
32	B32	6000.00	Per Conductor	2.00	12000.00	39.73	16767.60
	<p>Description:- Termination of cable cores on ARA terminal/fuse blocks, 8 way terminals block/ Screw less connectors in the apparatus Cases/ cable termination rack. This includes all associated works of pulling out the cable from underground. The work shall be done as per location plans and instructions of Railway Engineer at site. This item includes dressing of Cable, making wiring tree etc.</p>						
33	B33	1.00	Numbers	10989.00	10989.00	39.73	15354.93
	<p>Description:- Digging of cable pit (min 2x2x1m) as per instruction of Site Engineer, supplying and filling of sand before and after coiling the cables, covering top of the cable pit with stones and providing brick masonry on all four sides of the cable pit and plastering thereafter.</p>						
34	B34	14.00	Numbers	6053.00	84742.00	39.73	118410.00
	<p>Description:- Excavation and Casting of Apparatus Case foundation with contractor's own materials including cement and anchor bolts of standard size. The required scaffolding Ferma etc for Casting of foundation will have to be brought by the contractor at his own cost. - Single Case as per Drg No SK 748 or CSTE/5074</p>						
35	B35	5.00	Numbers	4621.00	23105.00	39.73	32284.62
	<p>Description:- Excavation and Casting of Apparatus Case foundation with contractor's own materials including cement and anchor bolts of standard size. The required scaffolding Ferma etc for Casting of foundation will have to be brought by the contractor at his own cost. - Half Case as per Drg No SK 747or CSTE/5074 or SS Location</p>						
36	B36	1.00	cum	3188.00	3188.00	39.73	4454.59
	<p>Description:- Cement concrete work for miscellaneous items in the ratio 1 : 3 : 6 . Item includes excavation, ramming, curing and plastering with cement & sand mixture (aggregate not exceeding 3.8 cm.) (Aggregate cement & sand to be supplied by the contractor). (Unit may be read as Per Cu. Mtr.)</p>						
37	B37	1.00	cum	1749.00	1749.00	39.73	2443.88
	<p>Description:- Providing brick masonry in ratio 1:6 cement and mortar including plastering with 1:4 cement and sand mixture both sides, 20 mm thick each with contractor's owned class II bricks, including excavation, curing, grouting, bolting etc. wherever required. Bricks sand and cement to be supplied by the contractor. (Unit may be read as Per Cu. Mtr.)</p>						
38	B38	14.00	Numbers	913.00	12782.00	39.73	17860.29
	<p>Description:- Installation of Apparatus Cases with miniature 'E' type lock on CC foundation. This includes filling of location foundations with river bed sand and plastering on top of the sand. 'E' Type lock will be provided by Railway. - Single Case</p>						
39	B39	5.00	Numbers	556.00	2780.00	39.73	3884.49
	<p>Description:- Installation of Apparatus Cases with miniature 'E' type lock on CC foundation. This includes filling of location foundations with river bed sand and plastering on top of the sand. 'E' Type lock will be provided by Railway. - Half Case</p>						
40	B40	14.00	Numbers	2060.00	28840.00	39.73	40298.13
	<p>Description:- Fabrication and fixing of phenolic laminated sheet of size 10mm thick in location box by providing all fixtures as per Railway Drawing including fixing of PVC coated string rods at the back side for cable support with contractor's own materials. The work shall be done as per drg and arrangement similar to SK 783-1/2. with latest alterations & as per instructions of Rly engineer at site. - Single Case</p>						
	B41	5.00	Numbers	601.00	3005.00	39.73	4198.89

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41	<p>Description:- Fabrication and fixing of phenolic laminated sheet of size 10mm thick in location box by providing all fixtures as per Railway Drawing including fixing of PVC coated string rods at the back side for cable support with contractor's own materials. The work shall be done as per drg and arrangement similar to SK 783-1/2. with latest alterations & as per instructions of Rly engineer at site. - Half Case</p>						
42	B42	24.00	Numbers	1259.00	30216.00	39.73	42220.82
42	<p>Description:- Installation of Maintenance free Earth Electrode for Maintenance free earth spec of RDSO/SPN/197/2008</p>						
43	B43	1.00	Lot	17628.00	17628.00	39.73	24631.60
43	<p>Description:- "Preparation of cable route plan, cable coreage plan, location particulars, Cable termination rack particulars, cable meggering report, earth resistance particulars, Traction bonding diagram, 1/2 wire count sheet and any other drawing in AutoCAD in A3/A4 size. The contractor shall initially supply 3 sets of circuits complete for approval of Railways. Railways will return one set to the contractor duly approved with alterations/corrections, if any. The contractor shall incorporate Railway's alterations/corrections in the tracings without any deviation and submit all tracings complete in all respects to the Railways along with CD & 4 sets of final approved drawings. This includes submission of final cable route plan as per laid cable duly measured at every 30m clearly indicating distance of laid cable from fixed point of reference & indicating all track crossings and tail cables. This also includes designing of cable coreage plan based upon I.P in consultation with engineer-in-charge. For small/medium yards "</p>						
44	B44	48.00	Per Detection Point (DP)	418511.21	20088538.08	AT Par	20088538.08
44	<p>Description:- "Supply, installation (indoor and outdoor), Designing, testing and commissioning of Digital Axle Counter, MULTI section type, for monitoring 20 track sections (in dual mode) (Refer SIP for further details) equipped for 48 DPs complete with trackside electronics with housing units, track clearance relays, reset relays, rail contacts, reset boxes, vital relays, detection points, deflector plates, LV boxes, etc. as per the requirement at site, as per RDSO Specification no. RDSO/SPN/176/2013(Ver.3) or latest. Note:- (1) This includes supply of 10 percent spare(rounded off to next higher number) of each item of the supplied quantities except mother board & cabinet. (2) It includes MSDAC tool kit-1set consisting of (Marking Zig., Digital meter Fluke Model no. 289 or similar, Torque Wrinch, Required Spanners, Screw Driver Set, and any other items required in Tool kit suitable for maintenance of supplied MSDAC) (3) Digital Axle Counter, Multi section type will be installed, wired, tested and commissioned by OEMs Engineer as per guidelines issued by RDSO. The Pre- Commissioning checklist issue by RDSO for Digital Axle Counter, Multi section type will be prepared by OEMs Engineer and signed jointly with Railways Site Engineer before commissioning of Digital Axle Counter, Multi section type, OEM will submit site installation certificate mentioning that Digital Axle Counter, Multi section type has been installed, wired, tested and commissioned by approved vendor of RDSO i.e., by OEM. (4) The items also include installation of track device (rail contact) including digging of trench, track crossing, laying of Double walled anti rodent corrugated pipe from track device to location box/DP and making its terminations, fixing of deflector plates. (Double walled anti rodent corrugated pipe made up of High Density Polyethylene of suitable diameter and all other accessories as per site requirement to be supplied by the firm). This includes provision of puff seal in HDPE pipe with contractor's own material. This also includes installation of EJB / Track side Electronics inside the track side housing (This housing will be supplied and installed on foundation by the contractor with his own material) including supply of wires and other accessories. This includes painting and writing on detection points and EJB housing. (5) 6-Quad cable coil shall be provided to the Contractor near to DP or in location box (if DP is installed inside Location Box). (6) Contractor has to take out the cable coil for termination in DP and balance cable should be laid at a depth of not less than 1m and properly protected through bricks. (7) Transmitter/Receiver cables laid from DP to rail contacts should be laid as per WCR cable laying policy. (8) The scope includes Supply and installation of Maintenance free Earthing for Axle Counter DP. Note: Supply to be made as per RDSO Specification no. RDSO/SPN/176/2013(Ver.3). "</p>						
45	B45	2.00	Per Gate	41068.00	82136.00	39.73	114768.63
45	<p>Description:- Installation, testing and commissioning of electrically operated lifting barrier, complete with Casting of cement concrete foundation for pedestal and boom rest post, cabling, power supply connection & wiring with complete outdoor work as per approved drawing, wiring etc.</p>						
46	B46	2.00	Numbers	13451.00	26902.00	39.73	37590.16
46	<p>Description:- Installation & commissioning of Sliding booms with E type lock and KLCR. This includes wiring of KLCR, running of cables, necessary painting & transportation of materials from store to site. All material required to commissioning of slide booms on gate will be supplied by the contractor.</p>						
47	B47	2.00	Per Gate	25822.00	51644.00	39.73	72162.16
47	<p>Description:- Casting of CC foundations in the ratio of 1:3:6 for sliding boom as per Drg. Minimum 10 Nos of foundation per set shall be cast using standard size holding down bolts & nuts for erection. Item include excavation, ramming, curing and plastering 1:4 cement and sand mixture. Aggregate, cement, sand and holding down bolts & nuts to be supplied by the contractor.</p>						

3. ITEM BREAKUP

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No item break up added

4. ELIGIBILITY CONDITIONS

Standard Financial Criteria

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	The tenderer must have minimum average annual contractual turnover of V/N or 'V' whichever is less; where V= Advertised value of the tender in crores of Rupees N= Number of years prescribed for completion of work for which bids have been invited. The average annual contractual turnover shall be calculated as an average of "total contractual payments" in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover. The tenderers shall submit requisite information as per Annexure-VIB, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet	No	No	Allowed (Mandatory)

Submission of Document Verification Certificate

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	Please submit a certificate in the prescribed format (please download the format from the link given below) for verification / confirmation of the documents submitted for compliance of eligibility / qualifying criteria. Non submission of the certificate, or submission of certificate either not properly filled in, or in a format other than the prescribed format shall lead to summary rejection of your offer. (Click here to download the Format of Self Certificatio)	No	No	Allowed (Mandatory)

Standard Technical Criteria

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	The tenderer must have successfully completed or substantially completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited: Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or One similar work each costing not less than the amount equal to 60% of advertised value of the tender. NOTE: Work experience certificate from private individual shall not be considered. However, in addition to work experience certificates issued by any Govt. Organisation, work experience certificate issued by Public listed company having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, incorporated/registered atleast 5 years prior to the date of closing of tender, shall also be considered provided the work experience certificate has been issued by a person authorized by the Public listed company to issue such certificates. In case tenderer submits work experience certificate issued by public listed company, the tenderer shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.	No	No	Allowed (Mandatory)
1.1	Defination of Similar Work :- Any Relay Interlocking (RI) or Electronic Interlocking (EI) or Color Light Signaling using Lever Frame (CLS) or Automatic Block Signalling (ABS) or Intermediate Block Signalling (IBS) work involving Indoor and Outdoor work (Cable laying & termination). (also refer tender document attached)	No	No	Not Allowed

5. COMPLIANCE

Check Lst

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender document attached.	No	No	Not Allowed

Commercial-Compliance

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S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender document attached.	No	No	Allowed (Mandatory)
2	Please enter the percentage of local content in the material being offered. Please enter 0 for fully imported items, and 100 for fully indigenous items. The definition and calculation of local content shall be in accordance with the Make in India policy as incorporated in the tender conditions.	No	Yes	Allowed (Optional)

General Instructions

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender document attached.	No	No	Not Allowed

Special Conditions

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender document attached.	No	No	Not Allowed

Undertakings

S.No.	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	As per Tender document attached.	No	No	Not Allowed

6. Documents attached with tender

S.No.	Document Name	Document Description
1	policyguidelinesforsigworks10-11-22.pdf	policy guidelines for works
2	ModificationtoPolicyguidelinesforsignalingworks.pdf	policy guideline2
3	ManualResettingofSiemensMSDACthroughVDU31.05.22_Downloaded.pdf	resetting of MSDAC
4	ApprovedSIPofKAPADVANJ.pdf	SIP OF KAPADVANJ
5	TenderDocument-22-23-47.pdf	Tender Document

This tender complies with Public Procurement Policy (Make in India) Order 2017, dated 15/06/2017, issued by Department of Industrial Promotion and Policy, Ministry of Commerce, circulated vide Railway Board letter no. 2015/RS(G)/779/5 dated 03/08/2017 and 27/12/2017 and amendments/ revisions thereof.

As a Tender Inviting Authority, the undersigned has ensured that the issue of this tender does not violate provisions of GFR regarding procurement through GeM.

Signed By: ABHINAV YADAV

Designation : DSTE/NORTH/BRC