SECTION - 9

ITEM RATE BOQ
PRICE SCHEDULES

BILL OF QUANTITES (BOQ)

PREAMBLE

1. The Price Schedule shall be read in conjunction with the Instructions to Tenderers, Conditions of Contract, Notice Inviting Tender, Technical Specifications, Tender Drawings, Schedule, Annexures and Addendums.

2. The tenderer shall quote lump sum amount for schedule-A (SOR SWR-2025) & for Schedule-B (Non SOR items) in BoQ at Central public procurement(CPP) portal.

3. The quoted Amount are for completed and finished items of work and complete in all respects. It will be deemed to have included all constructional plant, tools, machinery, labour, supervision, materials, fuel, oil, consumables, electric power, water, transportation, all leads and lifts, dewatering, all temporary works, construction of temporary stores and buildings, fencing, watering, lighting, erection maintenance, night working, inspection facilities, safety measures at work sites for workmen and road users, charges of liaison with Railways/BESCOM/ KPTCL / PGCL,/Indian Railways/BBMP/GBA State / Central Government and local bodies, availing clearance, joint inspection, testing, commissioning and energization, all the other incidental charges payable to BESCOM / KPTCL/ PGCL /Indian Railways/ BBMP/GBA, GAIL, BWSSB, BDA, charges for stamp duties/ agreements, execution of agreement with BI-RIDE / Railways and SEB authorities/ DISCOM submitting Relevant documents for Railway approval as per the requirement etc., Establishment and overhead charges, labour camps, insurance costs for labour and works, contractor's profit, all taxes (Excluding GST), royalties, duties, cess, octroi, other levies and other charges together with all general risks, liabilities and obligations set out or implied in the contract and including remedy of any defects during the Defect Liability Period, unless otherwise provided in Price schedule.

4. Providing concrete for all works deemed to be inclusive of the cost towards production of concrete by batching plant, transit mixer, transportation of concrete with all leads and lifts, form work, shuttering including staging as required, pouring of concrete by pump/tower crane to all heights /depths, tremie or other approved means, compaction by vibrators, curing by approved means such as water, steam or curing compound and all labour, tools, plants, machinery required for execution of work complete in all respects including de-shuttering after completion of work.

5. The whole cost of complying with the provisions of the Contract shall be deemed to have been included in the quoted Amount.

6. General directions and description of works and materials are not necessarily repeated or summarized in the Price Schedule.

7. The method of measurement of completed work for payment shall be in accordance with the requirements as stated in the individual sections of the Technical Specifications and Conditions of Contract.

8. Shuttering required for concrete work shall be of steel except wherever there are site constraints as decided by Engineer.

9. Tenderer may please note that to perform this contract, nothing extra shall be payable on account of field constraints, availability of front, preparation of detailed scheme for taking necessary clearance and approval from the concerned authority and other local bodies etc.

10. Contract prices shall be inclusive of all taxes, duties & royalties payable by them Excluding GST. Income tax and any other statutory taxes to be deducted at source, if any, will be deducted by the Employer in accordance with Income Tax Act and any other acts in force in accordance with instructions issued by authorities on this behalf, from time to time.

11. The Tenderer is required to furnish the PAN for all members of Group.

12. The Contract price indicated is tentative only, may decrease or increase depending on the field condition, successful bidder shall not be entitled to any claim for negative variation/value of work.

Note:

1. The Tenderer are advised to quote rate in two decimals.
2. If no rate has been indicated for any schedule/bill in words, as well as in figures, irrespective of the fact whether the Tenderer has written or not written above/below/at par, in such cases, the rate shall be considered as Zero and the price shall be calculated accordingly (Refer: Additional Instructions to Tenderers Clause no: 24.4 (d)).
3. Unit rates and prices shall be quoted by the Tenderer in BOQ at CPP Portal.
4. Where there is a discrepancy between the rate in figures and words, the lower of the two will govern. [ITT Clause 24.1]

Signaling & Telecommunication works in connection with 1. Shifting of Existing IB Hut between YNK-CSDR from IR Chainage Km 9/700-800 to IR chainage 9/300-400 in order to facilitate Corridor - 4 BSRP work and 2. Other miscellaneous S&T utility shifting works in Corridor 2 & 4 sections.		
Summary of Schedules		
Sl. No.	**Description**	**Amount in Rs.**
1	Schedule-A (SOR - items)	3,22,06,957.15
2	Schedule-B (Non SOR - items)	1,71,603.22
	Total value in Rs. (Excluding GST)	**3,23,78,560.37**

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
1	060100	Excavation of cable trench in all kinds of soil except hard rocky areas including clearing of roots of trees, rocks, bushes etc. to a depth of 1.0 Mtrs and to a width of 0.3 Mtrs. (Laying of cables is not included in this item).	Mtrs.	2000	64.41	1,28,820.00	
2	060400	Excavation of cable trench in all kinds of soil except hard rocky areas including clearing of roots of trees, rocks, bushes etc. to a depth of 1.0 Mtrs and to a width of 0.5 Mtrs. (Laying of cables is not included in this item).	Mtrs.	6000	79.66	4,77,960.00	
3	063000	Excavation of trench to a depth of 1 Mtr. for track crossing of cables, laying of DWC/HDPE/RCC pipes with collar/coupling, refilling of trench by ramming and consolidating it as per the instructions of Railway representative at site. During excavation of trench, it has to be ensured that the excavated soil does not mix with the ballast available. The depth of 1m trench shall be from the bottom of sleepers for track crossings. Laying of cables is not included in this item. (Supply of DWC/HDPE/RCC pipes with couplers/ collars is not included in this item).	Mtrs.	54	388.98	21,004.92	
4	062300	Provision of GI pipes-(50/100/150mm dia) for cable laying with offset at both ends and with couplings over Girder bridges by fixing on suitable MS Clamps at an interval of 2 Mtrs. The ends of the pipes shall be closed with brick masonry abutments work so that no cable is exposed, the work shall be carried out as per the instructions of Railway representative at site. (Supply of GI pipes with couplings and laying of cables is not included in this item). [MS angles, flats, bolts and nuts for manufacturing fixing clamps, bricks, sand, cement and all other miscellaneous required for the work shall be supplied by the Contractor].	Mtrs.	90	364.41	32,796.90	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
5	062400	Provision of GI pipes (50/100/150mm dia) for cable laying in Hard rocky area with off sets at both ends duly supported by concrete blocks of size 300mm x 300 mm x 300 mm at an interval of 2m. The ends of the pipes shall be closed with brick masonry abutments work so that no cable is exposed, the work shall be carried out as per the instructions of Railway representative at site. (Supply of GI pipes with couplings and laying of cables is not included in this item). [Stone jelly of size 20/25mm, bricks, sand, cement and all other miscellaneous materials required for the work shall be supplied by the Contractor].	Mtrs.	90	283.90	25,551.00	
6	061400	Laying of signalling/power/ telecommunication cables as per cable plan in cable trenches, masonry ducts, RCC Pipes, DWC pipes, GI Pipes etc. (Supply of cables is not included in this schedule).	Mtrs.	28000	17.80	4,98,400.00	
7	060800	Refilling of cable trench 1m depth by 0.3m width throughout, with earth after laying of cables, and consolidating the trench by ramming and levelling.	Mtrs.	2000	15.25	30,500.00	
8	060900	Refilling of cable trench 1m depth by 0.5m width throughout, with earth after laying of cables, and consolidating the trench by ramming and levelling.	Mtrs.	6000	19.50	1,17,000.00	
9	063400	Supply of RCC Cable Markers as per DRG.No.SG/SWR/067 or latest guidelines. The lettering on the Cable marker shall be "SIG" / "TELE" /"OFC" as per the instructions of Railway representative at site.	Nos.	130	310.17	40,322.10	Consignee
10	063500	Digging of pit to a depth of 800mm of size 300mm X 300mm, casting of cement concrete foundation of size 300mm X 300mm X 300mm and Placing of RCC cable markers on top of the foundation and refilling the pit and consolidating it by ramming. The cable markers shall be provided at an interval of 20 Mtrs. within station limits and 50 Mtrs. outside station limits throughout the cable route, diversions and also at every track/road crossing.	Nos.	130	226.27	29,415.10	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
11	063600	Excavation of cable coil pit to a size of 1.5mx1.5m and depth as instructed by Railway / Bi-RIDE / Engineer representative at site, for coiling the cables in rear of relay rooms, AFTC huts, apparatus cases etc. The work includes coiling the underground cables, and placing closely one layer of solid concrete blocks of size approx. 220mm x 100mm x 60mm breadth wise above the cables to cover all the cables in the cable pit, closing and consolidating the pit by ramming and levelling. [solid concrete blocks of size 220mmx100mmx60mm (approximately) shall be supplied by the Contractor].	cum.	16	958.47	15,335.52	
12	064800	Supply of Double walled corrugated pipe - 103.5mm inner Dia& 120mm outer Dia conforming to specification No. IS 14930(Part 2): 2001 with one coupler for every 6m of pipe as specified in Vol.II of the Tender document.	Mtrs..	54	435.59	23,521.86	Consignee
13	061700	Supply of GI pipes B class - 100mm Dia 4.5mm thick as specified.	Mtrs..	240	1,400.00	3,36,000.00	RITES
14	021000	Excavation of pit, casting concrete foundation and erection of Apparatus Case Full size as per Drg. No. SG/SWR/055 and fixing of 2 nos of "E" type locks, one for the front door and another for the back door, fixing of one hard wood shelf plank 37mm thick and painting the apparatus case inside and outside with one coat of red oxide and two coats of aluminium paints, along with painting of termination and equipment particulars on the doors of apparatus cases as per instructions of railway representative at site. (Supply of apparatus case is not included in this item). [Foundation bolts & nuts, 'E' type locks, cement, river sand, stone jelly of size 20/25mm, hardwood plank of 37mm thick, paints, varnish, fixing bolts & nuts and all other miscellaneous materials required for the work shall be supplied by the contractor].	Nos.	18	18,455.93	3,32,206.74	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
15	021100	Excavation of pit, casting concrete foundation and erection of Apparatus Case Half size as per Drg., No. SG/SWR/056, fixing one 'E' type lock for the front door and latching arrangement for the back door, and fixing of one hardwood shelf plank 37mm thick and painting the apparatus case inside and outside with one coat of red-oxide and two coats of aluminium paints. (Supply of apparatus case is not included in this item). [Foundation bolts and nuts, cement, 'E' type locks, river sand, stone jelly of size 20/25mm, 37mm hard wood planks, latching arrangements, paints, varnish, fixing bolts & nuts and all other miscellaneous materials required for the work shall be supplied by the Contractor]	Nos.	30	13,019.49	3,90,584.70	
16	022000	Termination of new main/tail cables on the existing terminals/ fuse blocks in apparatus cases/ battery boxes/ CT boxes/ cable termination racks as per approved circuit diagram. The terminal particulars are to be repainted /corrected on the doors of apparatus cases/ battery boxes/ cable termination boxes and FTOT index board as instructed by Railway / Bi-RIDE representative / Engineer at site. This work includes closing the opening created for entry of new cables in the apparatus cases with masonry brick work and sealing the bottom of the apparatus cases/ cable termination racks with cable compound / silicon sealant. [Paints, wire PVC 3/0.75mm and 16/0.2mm copper, sealing compound, bricks, cement, river sand and all other required miscellaneous materials shall be supplied by the contractor]. **Unit No means terminal.**	Nos.	120	73.73	8,847.60	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
17	021600	Termination of main, tail, Signalling and power cables and internal wiring on terminal/ fuse blocks in new apparatus cases (Full Size / Half Size), cable termination boxes and in gate Lodges. The work includes fixing of all new cables by teakwood clamp on teakwood base plank, fixing of Phenolic synthetic industrial fibre base fine weave cotton fibre board 10 mm thick P3 grade Hylam sheet for terminal board to suit each apparatus case, varnishing all teakwood items, fixing of terminals/ fuse blocks on the terminal board, drilling of necessary holes, termination of cables, wiring, identification of cables using aluminium tags with letters punched neatly, as per approved circuit diagram and cable plan, painting of particulars on sleeves and also on the inner side of the doors of apparatus cases. After terminations are over, the side openings of apparatus case foundation shall be closed with brick work, cement plastered, the inter-space filled with river sand up to base level and the bottom surface shall be sealed with sealing compound. (Supply of PBT terminals and Fuse blocks is not covered in this item). [Supply of Cement, teakwood cable clamp 50mm x 50mm, base planks 100mm x 25mm, Phenolic synthetic industrial fibre base fine weave cotton fibre sheet to IS specification 2036 - 1995 - Type F5, 10 mm thick P3 grade Hylam sheet. PVC/Nylon sleeves, varnish, paints, bolts, nuts and washers, Non- deteriorating type of fuses of various capacities, Aluminium cable tags, sealing compound, country bricks 220mm x 100mm x 60mm, copper bus bars, brass screw, river sand / stone dust, wire PVC3/0.75mm copper and other miscellaneous materials shall be supplied by the Contractor]. Termination on 25/60mm PBT terminals (new location)(Phenolic sheet)	Nos.	3000	173.72	5,21,160.00	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
18	021700	Termination of main, tail, Signalling and power cables and internal wiring on terminal/ fuse blocks in new apparatus cases, cable termination boxes and in gate Lodges. The work includes fixing of all new cables by teakwood clamp on teakwood base plank, fixing of Phenolic synthetic industrial fibre base fine weave cotton fibre board 10mm thick for terminal board to suit each apparatus case, varnishing all teakwood items, fixing of terminals/ fuse blocks on the terminal board, drilling of necessary holes, identification of cables using aluminium tags with letters punched neatly, as per approved circuit diagram and cable plan, painting of particulars on sleeves and also on the inner side of the doors of apparatus cases. After terminations are over, the side openings of apparatus case foundation shall be closed with brick work, cement plastered, the inter-space filled with river sand / stone dust up to base level and the bottom surface shall be sealed with sealing compound.(Supply of PBT terminals and Fuse blocks is not covered in this schedule).[Cement, teakwood cable clamp 50mm x 50mm, base planks 100mm x 25mm, Phenolic synthetic industrial fibre base fine weave cotton fibre sheet - 6mm thick to IS specification 2036 - 1995 - Type F5, PVC/Nylon sleeves, varnish, paints, bolts, nuts and washers, Non- deteriorating type of fuses of various capacities, Aluminium cable tags, sealing compound, country bricks 220mm x 100mm x 60mm, copper bus bars, brass screw, river sand, wire PVC3/0.75mm copper and other miscellaneous materials shall be supplied by the Contractor]. Termination on PBT fuse block (new location) (Phenolic sheet) Unit No means **per fuse block**.	Nos.	50	211.86	10,593.00	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
19	021800	Termination of main, tail, Signalling and power cables and internal wiring by fixing additional terminals/ fuse blocks on the existing terminal boards of apparatus cases, cable termination boxes etc. The work includes fixing of all new cables by teakwood clamp on teakwood base plank, varnishing all teakwood items, fixing of terminals/ fuse blocks, on the existing terminal boards, drilling of necessary holes, termination of cables, wiring, identification of cables using aluminium tags with letters punched neatly, as per approved circuit diagram and cable plan, painting of particulars on sleeves and also on the inner side of the doors of apparatus cases. After terminations are over, the side openings of apparatus case foundation shall be closed with brick work, cement plastered, the inter-space filled with river sand/stone dust up to base level and the bottom surface shall be sealed with sealing compound. (Supply of PBT terminals and Fuse blocks is not covered in this item). [Supply of all installation materials like Cement, teakwood cable clamp 50mm x 50mm, base planks 100mm x 25mm, PVC/Nylon sleeves, varnish, paints, bolts, nuts and washers, Non-deteriorating type of fuses of various capacities, Aluminium cable tags, sealing compound, solid concrete blocks 220mm x 100mm x 60mm, copper bus bars, brass screw, river sand / stone dust, insulated wire PVC3/0.75mm copper and other miscellaneous materials shall be supplied by the Contractor]. Termination of cables on 25/60mm PBT terminals (existing location) **Unit No means terminal.**	Nos.	250	146.61	36,652.50	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
20	022100	Manufacture and Supply of M.S. Relay Frames of suitable size to Hold up to 4 relays /plug in type HMU as required by Railways and fixing them in apparatus cases for all types of signal control circuits, LC gate control circuit and Point control circuits, fixing of plug boards, relays, resistors and electrolytic condensers on phenolic synthetic industrial fibre base fine weave cotton fibre sheet 6mm thick to IS specification 2036 - 1995 - Type F5, wiring and termination as per approved circuit diagram and painting the particulars. (Supply of all types of relays, plug boards, connectors, retaining clips and plug in type HMU is not covered in this item). [Wire PVC copper, 3/0.75mm and 16/0.2mm copper, phenolic synthetic industrial fibre base fine weave cotton fibre sheet - 6mm thick to IS specification 2036 - 1995 - Type F5, for fixing resistors and condensers, MS flats 25mm x 6mm brass bolts and nuts, paints, soldering materials, resistors, condensers and all other miscellaneous materials required for the work shall be supplied by the contractor].	Set	14	4,956.78	69,394.92	Consignee

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
21	022200	Manufacture and supply of M.S. relay frames of suitable size to hold up to 8 relays/plug in type HMU as required by Employer and fixing them in apparatus cases for all types of signal control circuits, LC gate control circuit and Point control circuits, fixing of plug boards, relays, resistors and electrolytic condensers on Phenolic synthetic industrial fibre base fine weave cotton fibre sheet - 6mm thick to IS specification 2036 - 1995 - Type F5, wiring and termination as per approved circuit diagram and painting the particulars. (Supply of all types of relays, plug boards, connectors, retaining clips and plug in type HMU is not covered in this item).[PVC insulated wire copper, 3/0.75mm and 16/0.2mm copper, Phenolic synthetic industrial fibre base fine weave cotton fibre sheet - 6 mm thick to IS specification 2036 - 1995 - Type F5, for fixing resistors and condensers, MS flats 25mm x 6mm brass bolts and nuts, paints, soldering materials, and all other miscellaneous materials required for the work shall be in the contractor's scope].	Set	6	8,788.14	52,728.84	Consignee
22	022900	Alterations to painted termination/wiring particulars of functions in the existing apparatus cases, cable termination boxes etc., on the PVC/nylon sleeves and painting of new nomenclature on the existing signalling gadgets. This work includes carrying out alterations of particulars on the inner side of the doors of apparatus cases, re numbering of apparatus cases and cable termination boxes. [Paints and all other miscellaneous materials required for the work shall be supplied by the Contractor]. (a)Alteration to painting particulars (Apparatus Case - **Full size**).	Nos.	12	1,479.66	17,755.92	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
23	023000	Alterations to painted termination/wiring particulars of functions in the existing apparatus cases, cable termination boxes, etc., on the PVC/nylon sleeves and painting of new nomenclature on the existing signalling gadgets. This work includes carrying out alterations of particulars on the inner side of the doors of apparatus cases, re numbering of apparatus cases and cable termination boxes. [Paints and all other miscellaneous materials required for the work shall be supplied by the Contractor]. (b) Alteration to painting particulars (Apparatus Case - **half size**).	Nos.	12	776.27	9,315.24	
24	012200	Excavation of pit, casting concrete foundation as per Drg. No. SG/ CN / 02/9 using metallic templates, for erection of colour light signals up to 4 aspects. [Foundation bolts, cement, river sand / stone dust, stone jelly of size 20/25mm Dia. and all other miscellaneous materials required for the work shall be supplied by the Contractor].	Nos.	6	9,538.14	57,228.84	
25	012300	Erection of surface base, signal pole, mounting of colour light signal up to 4 aspects complete on Signal pole/ Off-set bracket, (for LED / filament bulbs with lenses, CLS transformer, current regulators (whichever is applicable), fixing of ladder with platform complete and concreting of ladder shoe, fixing of number plates, marker board, lens guard, fixing of speed limit board wherever necessary, termination of tail cables, wiring of signal unit with PVC insulated wire 3/0.75mm copper, provision of EWS locks, and painting of one coat of red oxide and two coats of aluminium/ enamel paints. When the aspect is fixed on Offset bracket using 'U' bolts and nuts, a through bolt shall be provided by drilling a hole in the signal pole to prevent the offset bracket from sliding down. ['U' bolts and nuts, through bolts and nuts, cement, stone jelly 20/25mm Dia., river sand / stone dust, Signal Collar Rings, PVC insulated wire 3/0.75mm copper, lens-guard, all fixing bolts and nuts, lead wool, paints PVC/Nylon sleeves, enamelled number plates. enamelled marker boards, EWS locks, and all other miscellaneous materials for the work shall be in the Contractor's scope].	Nos.	6	10,280.51	61,683.06	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
26	015200	Releasing of existing tail cables and drawal of new tail cables for colour light signals up to four aspects with or without route indicator, post type shunt signal and Calling on signals, termination of new tail cables and wiring using PVC insulated copper wire 3/0.75mm copper. This work includes drawal of new tail cables into the signal post duly releasing the existing tail cables from the relevant signals and resurfacing the earth excavated as instructed by Employer / Engineer. [Supply of PVC insulated copper wire 3/0.75mm, paints and all other miscellaneous installation materials shall be the Contractor's scope]. **Unit Nos. means per cable.**	Nos.	4	1,367.80	5,471.20	
27	014600	Supply and provision of Screening arrangement for Signals in RE area as per standard practice. The work comprises of providing MS angle frame and wire mesh in order to avoid close proximity of OHE wires. The work also includes provision of earthing wire using 4 SWG GI wires from the screening arrangement up to surface base as per the instructions of Employer / Engineer at site.[All materials required for this work shall be supplied by the Contractor].	Nos.	3	1,652.54	4,957.62	Consignee
28	150100	Provision of Earth Electrodes as per RDSO Drawing No.SG/SWR/057 and Earthing of metallic sheath and armour of all cables in all apparatus cases, relay room, equipment room, ASM room for block and control, and earthing of all equipment's in apparatus cases, power room, relay rack, cable termination rack, control panel, signals, lever frames with MS of flat 35mm X 6mm or 19c cable (MS flat for closer by areas and MS flat/19c cable combination for farther areas) as per the instructions of Railway representative at site. The work includes painting of earth resistance value on the earth pit. (Supply of 19C cable is not covered in the scope of this schedule). [MS flat for earthing 35mm X 6mm, cement, GI earth electrodes, common salt, charcoal, country bricks, river sand, soldering materials and all other miscellaneous materials required for the work shall be supplied by the Contractor].	Nos.	32	3,361.86	1,07,579.52	RITES

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
29	020600	Supply of PBT terminals 60mm centre as per RDSO Specification No. IRS.S.75/2006 (Rev.2) or latest.	Nos.	200	94.92	18,984.00	RDSO
30	020200	Supply of Apparatus Cases half size as per specification/ drawing.	Nos.	30	14,677.97	4,40,339.10	RITES
31	221100	Supply and installation of magneto telephone handle type and supply and wiring of Ni-cad power pack 4V- 2.2AH with charger to work on 110V AC, at the stations, LC Gates and Location Boxes near top points. [Supply of Magneto telephone handle type with Ni-cad power pack 4V 2.2AH with charger to work on 110 V AC, PVC insulated wire 16/0.2mm copper, and all other miscellaneous materials shall be supplied by the Contractor.]	Nos.	8	10,615.25	84,922.00	RDSO
32	015300	Dismantling and releasing of existing Colour light Signals complete (up to 4 aspects) with or without Route Indicators, calling on signals, shunt signals etc., carefully without any damage to the gadgets, accounting and stacking them neatly at a place as instructed by Employer / Engineer at site. The work includes breaking the concrete foundation, closing the resultant pit and resurfacing it by ramming and levelling.	Nos.	8	3,076.27	24,610.16	
33	023100	Releasing of existing apparatus cases (Full/ Half/ Quarter size) without damage after releasing the shelf planks, Terminal blocks, Fuse Blocks, Terminal Boards, Relays of all types EKTs, Secondary Cells, power equipment's, 'E' type locks, etc., and breaking the concrete foundation. After releasing, the resultant pits are to be closed and consolidated by ramming and levelling. The released materials shall be accounted and stacked at a place as instructed by Employer / Engineer at site.	Nos.	14	2,910.17	40,742.38	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
34	031200	Breaking of concrete and releasing the existing cable termination boxes, after releasing the base plank, Terminal blocks, Fuse Blocks, Terminal Boards, cut rails, pipes, etc., closing the resultant pits and consolidating it by ramming and levelling. The released materials shall be accounted and stacked neatly at a place as instructed by Employer / Engineer at site.	Nos.	8	1,835.59	14,684.72	
35	122500	Releasing of Secondary cells and battery stands available in the battery room (Non IPS installations) along with connecting strips, wires and terminal boxes carefully without causing any damage to the batteries, accounting and stacking them neatly at a place as instructed by Employer / Engineer at site. After releasing any holes in the walls/ flooring shall be filled with cement mortar and plastered.	Set	2	5,013.56	10,027.12	
36	041300	Releasing of existing TLJB boxes with stumps and terminals after releasing all the bond wires. The released materials shall be accounted and stacked neatly at a place as instructed by Railway representative at site.	Nos.	30	133.05	3,991.50	
37	122700	Releasing of all power equipment's including IPS systems (including signal equipment's), equipment stands, terminal boards, power panel etc., in the power room carefully without causing any damage to the equipment's after disconnecting all the supply wires. The released equipment's shall be accounted and stacked at a place as instructed by Railway / K-RIDE representative / Engineer at site. After releasing any holes in the walls/ flooring shall be filled with cement mortar and plastered when not instructed otherwise.	Set	2	11,048.31	22,096.62	
38	220100	Transportation of Signalling materials by road as per the instructions of Railway / K-RIDE representative / Engineer at site. The work also includes loading and unloading of the materials at the designated place. (a) Transportation up to 100 Kms.	Per Ton-Km	4000	20.34	81,360.00	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
39	150300	Supply of basic material to construct unit maintenance free earth as per RDSO spec. no. RDSO/SPN/197 ver.1.0 or latest. consisting of a) Copper bonded steel electrode of 3.0 m long, 17.0 mm Dia with copper bonding thickness mini 250 micron and UL listed and marked --1 no. b) Earth enhancement compound of RDSO approved brand supplied in sealed bags of min 10 kgs-03 nos. c) Copper strip ofn150 mm X 25 x 6 mm to terminate earth rod - 1 no. d) Copper strip of 300 X 25 x 6 mm (MEEB) - 1 no. e) Copper strip of 150 X 25 x 6 mm (SEEB) - 1 no.	Nos.	8	24,018.64	1,92,149.12	RDSO
40	062500	Supply of Permanently Lubricated High Density Polyethylene duct (PLBHDPE), 40/33 mm Dia., along with end cap, end plug, Cable sealing plug and couplers for OFC, as per RDSO/SPN/TC/45/2013 Rev.2 (up to Amdt.2) or latest.	Km	14	82,659.32	11,57,230.48	RITES
41	210700	Supply of jointing kit conforming to RDSO specification No. IRS-TC 77/2012 Rev. 3.0 or latest for quad cable.	No.	30	3,409.32	1,02,279.60	RDSO
42	211300	Supply of 2T V.F Transformers of 470:1120 Ohms or 470:600 Ohms or 470:470 Ohms as per RDSO specn. No. IRS-TC-76-2021 or latest.	Nos.	30	4,994.07	1,49,822.10	RDSO
43	213200	Supply of 6 pin socket flat as per RDSO specn. IRS/TC/42/20 Ver.1.0 with latest.	No.	10	664.41	6,644.10	Consignee
44	213100	Supply of Emergency Socket boxes of FRP make conforming to specification RDSO/SPN /TC/44/2002 Ver.3.0 or latest.	No.	10	4,819.49	48,194.90	Consignee

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
45	211900	Supply and installation of 19'' - 42U Rack complete with fittings for housing LER, LSR, SDH equipment, FDMS, DDF and other equipment like cable managers, completely wired using krone module and other equipment's like runaway ladders etc., as per technical specification below. It should be able to lock all the equipment with only order wire telephone outside the rack, the rack should be of APW President / Rittal make etc., The components of the rack are specified below. This includes transportation and installation of rack in prefab/building at specified stations. a) Rack S33 42U 600WX600D - 1 no. b) Fixed side panels 42U x 600 D - 2nos. c) Front glass door plain 2U/600W - 1 no. d) Rear MS door plain 42 U/600W-1 no. e) Caster with brakes-2 nos. f) Fans directly mounted on the top 48v DC 90CFM-2 nos. g) Krone mounting bracket - 1 no. h) MCB mounting panel with MCBs a) 32 Amps MCBs (DP) - 2nos. b) 6 Amps MCBs (DP) - 6 nos. i) Earth continuity kit - 01 no. j) Equipment trays - 5 nos. k) Channel with cable loops 42U - 2 nos.	Nos.	1	47,138.98	47,138.98	Consignee
46	212400	Supply of universal DTMF way station control telephone conforming to spec., No.IRS.TC82/2005 or latest	No.	3	6,075.42	18,226.26	RDSO
47	210500	Supply of 10 pair CT box with disconnecting terminals of WAGO /Phoenix / Elmex make or similar.	Nos	8	2,483.90	19,871.20	Consignee
48	210300	Supply of 20 pair CT box with disconnecting terminal of WAGO / Phoenix / Elmex make or similar.	No.	20	3,681.36	73,627.20	Consignee

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
49	214400	Supply and fixing of OFC patch cards 5 Mtrs length as per site requirements. (LS-SC, SC-SC, LC-LC, FC FC patch cards as per site requirement)	No.	20	638.14	12,762.80	Consignee
50	080300	Supply of Cable termination racks size 880mm X 2 Mtrs. made out of 50mm X 50mm X 6mm thick MS angle powder coated with stainless steel nuts and bolts for fixing the racks with suitable holes for hylam sheet complete as per standard practice with tripod bases and reel insulators. Cable ladder of 400mm x 2000mm be provided at both sides with angle size 40mm x 4mm x 5mm with supporting flat of size 25mm x 5mm.	No.	1	6,600.00	6,600.00	Consignee
51	080100	Supply of One-way relay rack, universal type, with MS angle frame to suit 'Q' series relays, scaffolding for fixing the racks, Powder coated with stainless steel nuts and bolts for fixing the racks and cable ladder made out of MS angle 65mm X 65mm X 6mm for fixing the rack. Supporting angles, frame mounting triangle base with J bolts and insulation of required numbers complete to suit QN1/K-50 prewired tag block	Nos.	2	7,094.07	14,188.14	Consignee
52	080200	Erection of One-way relay rack with scaffolding suitably concreting tripod bases a reel insulators with ''J'' bolts and nuts. Tripod another supporting are to be painted in 2 coats with enamel.	Nos.	2	3,721.19	7,442.38	
53	100200	Supply of Relay AC immunised plug type QNA1 8F/8B Metal to carbon with plug board, retaining clip and connectors confirming to BRS - 931A & as per RDSO Spec No. IRS- S-34, IRS -S-23, IRS-S-60/78 or latest. (QNA1 Contact configuration 8F/8B)	No.	50	4,414.41	2,20,720.50	RDSO
54	100800	Supply of Relay AC immunised DC plugin 24V DC, 1000 ohms, 6F/6B complete with plug board, retaing clips and connectors etc. to BRS931A, IRS-S-34/68, IRS-S-23/86 and IRS- S-60 QNA1K RDSO/SPN/84 version 2.0 along with STs/E/ Relays / UEA	No.	10	4,883.90	48,839.00	RDSO

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
55	062900	Track crossing by Horizontal Boring Method based on RDSO Report No. BS - 105. This also includes insertion of HDPE Pipe of 110mm Outer Dia. in the Bore drilled.(Supply of HDPE Pipe is not included).	Mtr.	500	1,297.46	6,48,730.00	
56	080800	Termination of main / tail, Signalling and power cables on Terminals/ Fuse blocks in Cable Termination Rack in relay rooms. The work includes clamping of all cables, fixing of Hylam sheet 10 mm thick P3 Grade for terminal boards, fixing of terminals/ fuse blocks on the terminal board, drilling of necessary holes, internal wiring, identification of cables using aluminium tags with letters punched neatly, as per approved circuit diagrams and cable plans, painting of particulars on sleeves. After terminations are over, cable entry at the bottom shall be closed with bricks, cement plastered, the inter-space filled with sand / stone dust up to base level and the bottom surface shall be sealed with sealing compound. Cable armour to be grounded, soldered to earth bus bar. (Supply of cable termination racks is not included in this schedule). [Supply of all bolts, nuts and washers shall be of stainless steel / brass, Hylam Sheet 10 mm Thick P 3 Grade, cement, sand /stone dust, stone jelly, paints and all other miscellaneous installation materials required for the work shall be in the Contractor's scope] **Termination on 25/60mm PBT terminals Unit No means Per Terminal**	No.	200	171.19	34,238.00	
57	061300	Construction of Concrete protection plinth (cement concrete 1:3:6) of 300*300 mm size and curing in cable trench over already laid GI / DWC/HDPE pipe in which cable is already laid. (Supply of all the materials required for the work shall be in the contractor's scope)	RMT	500	528.81	2,64,405.00	
58	150400	Installation of unit Maintenance Free Earth as per RDSO specification No. RDSO/ SPN/197 Ver. 1.0 or latest and as per Technical Specification.	No.	16	13,095.76	2,09,532.16	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
59	022800	Strengthening of foundations of signals, Full/Half location boxes, by carrying out the earth work around the foundation, ramming of the earth, carrying out masonry work from bottom of earth work using country stones and cement masonry to prevent the earth from slipping down the bank.	No.	10	4,837.29	48,372.90	
60	213300	Fabrication and erection of rail post complete with emergency socket box made of FRP material as per RDSO drawing No. UBL/SG/CON/6/2004 along the Railway track at locations to be indicated by the Engineer and its wiring (Rail post shall be supplied by Employer / Engineer. Emergency Socket and Emergency Socket box covered in another schedule of this Contract shall be used for execution of this item. All other materials required for this work falls in the Contractor's scope.	No.	7	4,958.47	34,709.29	
61	211200	Provision of Leading in arrangement for OF cable inside service buildings by providing large size G.I. Bend at Bottom & vertical GI Pipe of 75 mm dia. The vertical pipe shall be taken 75mm above the floor level & the mouth of the pipe shall be covered by Plastic Cap. The floor shall be restored to the original condition.	1 job	1	2,020.34	2,020.34	
62	210600	Fixing of 10 pair CT box and termination of cable at the Stations/LC gates etc., This includes fixing of PIJF cables and CT box on the wall with necessary wooden plank and PVC pipe for entire length of the cable inside the room. (10 pair CT box covered in the supply portion shall be used for this work. Supply of all other required installation materials shall be in the Contractor's scope).	Nos	10	2,250.00	22,500.00	
63	210400	Fixing of 20 pair CT box and termination of cable at the Station/LC gates, other locations etc., This includes fixing of PIJF cables and CT box on the wall with P3 grade Hylam sheet 10 mm thick for entire length of the cable inside the room. (20 pair CT box covered in the supply portion shall be used for this work. Supply of all other required installation materials shall be in the Contractor's scope.	Nos	20	2,914.40	58,288.20	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
64	210800	Provision of normal joint of Heat shrinkable type complete for 6 quad cables. After jointing, the through cable has to be tested for insulation resistance and loop resistance in presence of Railway Engineer and in case of any defects, the jointing has to be re-done free of cost by the Contractor. [Heat shrinkable jointing kit confirming to RDSO specification No. IRS-TC 77/2012 Rev. 3 covered in the supply portion has to be used for this purpose] The Contractor should supply all other small items free of cost which are required for making a joint. Only gas blower shall be used for making of thermos shrinkable joint.	Nos.	30	3,400.85	1,02,025.50	
65	080400	Erection of CT rack assembly complete with scaffolding suitably concreting tri-pod bases and reel insulators with "J" bolts and nuts. Tripod and other supporting are to be painted with 2 coats of enamel.	No.	1	4,334.75	4,334.75	
66	060600	Transportation & Laying of Polyolefin cable duct / channels of all sizes in trenches (top of the duct / channel shall not be less than 0.5m below earth/ground level). Polyolefin cable duct with covers will be supplied by the Employer. (The Contractor has to collect the above item from Bi-RIDE nominated store).	RMT	6000	534.11	32,04,660.00	
67	062600	Laying of Permanently Lubricated HDPE duct, 40/33 mm Dia, in the trenches and in the protective works already provided including in HDD portion /Track Crossings / crossing the walls and supply pulling of Nylone rope through it at different places as per directions of Employer / Engineer.	Km.	14	12,378.81	1,73,303.34	
68	062700	Conducting of Duct Integrity test for Permanently Lubricated HDPE duct, 40/33 mm Dia. in underground / horizontal boring sections and clearing obstructions if any , as per specification.	Km.	14	1,954.24	27,359.36	
69	062800	Blowing of OFC cable in already laid HDPE duct, 40/33mm Dia., using blowing machine, providing the sufficient loops in loop joint chambers and other associated works.	Km.	14	14,603.39	2,04,447.46	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
70	181100	Submission of all relevant final 'As mades' of circuit diagrams, contact analysis charts, termination particulars of apparatus cases and cable termination rack, power supply arrangements, relay index board, cable plans, cable route plans, red boundary plans and all other particulars covered under various schedules. All 'As mades' shall be prepared by the contractor in AUTOCAD 2000 or latest and submitted in CDs. One copy of the 'As mades check print shall be submitted before Testing the circuits. The final negatives shall be made in tracing sheet (80x90 gsm). All ' As mades' except Cable plan, cable route plan, bonding diagram & power supply diagram shall be prepared in A3 size. On approval the contractor shall submit along with negatives, 8 copies in each, duly making booklet neatly bound. Out of 2 sets of drawings and other plans shall be kept in transparent plastic cover (2 sheets back-to-back in one plastic cover) and handed over to Railways/Bi-RIDE. Also, the contractor has to supply one set of As made in 'Reproduction film'. The approved circuit diagram will be issued by Railways/Bi-RIDE in soft copy as well as two sets of hard copies. wherever alterations to existing circuits are involved, the existing as-made circuit diagrams will be supplied by Railways/Bi-RIDE either in CDs or RP film. The contractor shall incorporate the details of all the new wirings and alterations in the CD / RP film and submit them to Railways. On approval 8 copies shall be made for As-made circuit diagrams also as mentioned above.	Per Sheet	200	346.61	69,322.00	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
71	181200	Printing, Binding & supply of the following Registers with latest proforma given by in-charge officer each register of 100 pages. Station Asset Register / deficiencies Book / Officer Inspection book / Work site orientation classes note book / station Message book / Infringement measure book for signal gears /Route cancellation register /Relay Room Key Register / Cable testing summary / Signal maintenance record register /Power systems Battery maintenance Register /Mechanical signalling Register /Axle Counter Maintenance Register /Block instrument Maintenance Register /Track circuit maintenance Register /Lifting barriers maintenance Register /Electrically operated point maintenance Register / Electronic interlocking Maintenance Register /Location box maintenance Register /Earth Testing record Register /Relay room register /Joint Inspection of Points and Crossings register /Block Proving Axle Counter Register /Diesel generator /Solar panel Register.	Per Register	50	231.36	11,568.00	
72	014900	Supply and fixing of retro-reflective type Calling-On/STOP/BSLB/Legend boards as per practice & SEM including misc. materials.	No.	2	6,657.63	13,315.26	Consignee
73	083000	Supply of Wago terminal of 2 conductor disconnecting terminal block for 2.5 sq. mm wire termination make: wago/ elmex or similar with accessories.	No	1100	72.03	79,233.00	Consignee
74	152000	Supply of lightening and surge arrestors of class B&C suitable for single phase power supply as per RDSO/SPN /165/2023 Ver.4.0 amendment 1 or latest.	Nos.	1	26,895.76	26,895.76	Consignee
75	152100	Installation and Commissioning of Class B and C arresters as supplied. These din rail mountable devices along with 63 Amps HRC input fuse and fuse base shall be fixed in a wall mountable cabinet of size 450 x 250 x 150 mm made as MS steel of 20 gauge or better with IP31 protection and powder coating. All the internal power wiring shall be made by using 10 sq.mm cu cable. The PF contract of the class C arrester shall also be wired using cable thickness of 2.5 sq.mm and terminated on a suitable terminal block.	Nos	1	5,378.81	5,378.81	Consignee

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
76	061500	Supply and fixing of PVC casing and capping/PVC pipe of minimum 25 mm. size of higher as per requirement at site on the wall/floor etc., using bends, coupler and T joints and flexible pipe wherever necessary with fixture in the OFC room from equipment rack to common termination and from OFC room to SM room / reservation office / data logger / FOIS room etc., (All required materials for fixing to be arranged by the Contractor).	Mtr.	20	55.93	1,118.60	Consignee
77	091100	Supply, installation and commissioning of class 'A' protection with lightening event counter as per RDSO spec. No. RDSO/SPN/197/2016 ver.1 and as per details given in Technical specification with three years warranty.	No.	1	3,94,455.93	3,94,455.93	RDSO
78	110400	Supply of Remote Terminal Unit (RTUs) for data loggers with 128 digital and 16 Analog Inputs as per RDSO spec. no. IRS-S-99/2006 or latest including Power supply and Backup arrangements.	No.	1	2,25,551.69	2,25,551.69	RDSO
79	110500	installation, wiring, testing & commissioning of Remote Terminal Unit (RTUs) for data loggers with 128 digital and 16 Analog Inputs.	No.	1	34,233.05	34,233.05	
80	160100	Supply, installation testing and commissioning of Heat and smoke multi sensor as per RDSO/SPN/217/2025 ver-3.1 or latest. along with its base, back-box and all accessories incompliance with IS:2175 and IS:11360 standard sand Under writers Laboratory (UL) listed.	Nos	12	5,318.64	63,823.68	RDSO
81	160200	Supply, installation, testing and commissioning Fault isolator as per RDSO/SPN/217/2025 ver-3.1 or latest with back box and all other accessories	Nos	1	5,128.81	5,128.81	Consignee
82	160300	Supply of Analogue linear heat sensing (LHS) cable as per RDSO/SPN/217/2025 ver-3.1 or latest	Meters	100	1,203.39	1,20,339.00	RDSO

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
83	160400	Supply of Analogue linear heat sensing (LHS) cable along with interface Module as per RDSO/SPN/217/2025 ver-3.1 or latest in compliance with IS standards and Underwriters Laboratory (UL) listed.	Meters	1	83,600.85	83,600.85	RDSO
84	160500	Supply of Fire survival cable 2x 1.5 sq.mm unarmoured as per RDSO/SPN/217/2025 ver-3.1 or latest	Meters	150	136.44	20,466.00	Consignee
85	160600	Supply, installation, testing and commissioning of Networkable single loop addressable Fire Alarm Control panel expandable up to 4 loops with GSM interface as per RDSO/SPN/217/2025 ver-3.1 or latest. This work involves supply, fixing, installation and testing of control panel. The control panel shall be networkable to Zonal /Divisional headquarters preferably over TCP/lP and shall have clock synchronization facility. This includes Networking module (TCP/IP) for control panel along with power supply unit and battery set of required capacity for 24 hours' backup as per RDSO specification. The panel should support degrade mode operation in compliance with IS: 2189, EN54 standards and Underwriters Laboratory (UL) listed.	Nos	1	1,78,098.31	1,78,098.31	RDSO
86	160700	Supply, installation, testing and commissioning of GSM module for Control panel with back box and all other accessories as per RDSO/SPN/217/2025ver 3.1 or latest. with auto dialler function to SMS during failure or fire situation.	Nos	1	28,970.34	28,970.34	RDSO
87	160800	Supply, installation, testing and commissioning of Manual call point (resettable) with back box and all other accessories as per RDSO/SPN/217/2025ver-3.1 or latest	Nos	2	6,787.29	13,574.58	RDSO
88	160900	Supply, installation, testing and commissioning of Relay module with back box and all other accessories as per RDSO/SPN/217/2025 ver-3.1 or latest	Nos	1	3,700.00	3,700.00	RDSO

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
89	161000	Supply, installation, testing and commissioning of Hooter and Visual strobe alarm units with back box and all other accessories as per RDSO/SPN/217/2025 ver-.3.1 or latest along with its power supply unit.	Nos	1	12,378.81	12,378.81	RDSO
90	161100	Supply, installation, testing and commissioning of Control module with back box and all other accessories as per RDSO/SPN/217/2025 ver-3.1 or latest	Nos	1	4,755.08	4,755.08	RDSO
91	161200	Supply, installation, testing and commissioning of EOL asper RDSO/SPN/ 217/ 2025 ver-3.1 or latest as directed by the site engineers	Circuit	1	2,956.78	2,956.78	RDSO
92	161300	Supply, installation, testing and commissioning of Monitor module for 3rd part with back box and all other accessories as per RDSO/SPN/217 /2025 ver-3.1 or latest	Nos	1	3,038.98	3,038.98	RDSO
93	161400	Laying / drawing of various type of cables on PVC pipe / capping casing, or cable trays, ladder, shelter etc. as instructed by Railway engineer at site. (Indoor cables to be drawn through pipe, outdoor cables if required to be clamped on wall /floor etc.	Meters	100	3.38	338.00	
94	161500	CO2 Fire Extinguisher: Supply, installation, testing and commissioning of CO2 fire extinguisher 6.5 kg capacity conforming to IS15683 with ISI mark provided with all fittings and accessories.	Nos	2	21,412.72	42,825.42	Consignee
95	070300	Supply of PVC Insulated Armoured, Underground, unscreened Railway Signalling Cable with high conductivity annealed copper conductor confirming to RDSO Spec. No. IRS: S:63/2014 Rev.4.0 or Latest amendment if any. **Size:19C x 1.5 sq mm**	Mtr.	7000	302.08	21,14,560.00	RDSO
96	070100	Supply of PVC Insulated, Armoured, Unscreened, Underground Railway Signalling Cable Copper Conductor Conforming to RDSO Specn. No. IRS: S/2014 Rev.4.0 or latest; **Size: 30 Core x 1.5 Sq mm.**	Mtr.	5000	445.31	22,26,550.00	RDSO

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
97	071200	Supply of **24 fibre** armoured Optic Fibre Cable as per Spec. No. IRS: TC.55/2006 REV.1 with Amendment 1.1 or latest in any.	Mtr.	18000	56.37	10,14,660.00	RDSO
98	070400	Supply of PVC Insulated, Armoured, Unscreened, Underground Railway Signalling Cable Copper Conductor Conforming to RDSO Specn. No. IRS: S-63/2014 Rev.4.0 or latest; Size: **12 Core x 1.5 Sq.mm.**	Mtr.	8000	231.44	18,51,520.00	RDSO
99	071400	Supply of 6 Quad 0.9 mm conductor underground jelly filled Quad cable as per RDSO specification No. IRS:TC 30-05 Ver-1.0 Amdt 5.0 or latest.	Mtr.	18000	317.68	57,18,240.00	RDSO
100	070800	Supply of Aluminium Conductor Power cable 2 core X 25 sq.mm. confirming to spec. no. IRS: S-63-2014 Rev 4.0 & IS:1554 (Part-1) with latest amendment if any.	Mtr.	8000	109.19	8,73,520.00	RDSO
101	200100	Provision of one skilled and one unskilled staff round the clock to attend to teething troubles of the installation along with Employer / Engineer after the installation has been commissioned. The work includes routine maintenance, help in failure restoration as per the directions of the Employer / Engineer / Open line staff. Unit Month means Per month	Months	4	64,973.73	2,59,894.92	
102	200200	Providing the services of Computer trained Technical staff to carryout works like drawing, computation, write up etc., using software like AUTOCAD, MS office etc., between 08.00 Hrs and 20.00 Hrs of the day with all expenses borne by the Contractor. Note: The person shall be engaged for providing the services only after competency / skill has been examined and certified by the Employer /Engineer.	Days	180	809.32	1,45,677.60	
103	200500	Provision of Security Guards round the clock in 12 hours shift beat from Up Home Signal to Down Home Signal to avoid theft of signalling assets. {Per Unit- Per 12 Hours shift}.	Per 12 hours Shift	180	637.29	1,14,712.20	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
104	200300	Provision of services of helping hand man power to carry out miscellaneous/sundry works in the office/field between 08.00 hrs. and 20.00 hrs. of the day and accompanying Employer / Engineer with all expenses borne by the Contractor.	Days	180	571.19	1,02,814.20	
105	220800	Supply of Navtal locks Godrej make 75mm with 2 Keys.	No.	4	534.75	2,139.00	Consignee
106	210900	Excavation of earth for jointing pit without damaging the Optic Fiber Cable and provision of joint chamber of 1.2 Mtr. Dia., 0.60 Mtr. height and 50 mm. thickness with two piece top cover and bottom cover with holes for drainage and cable entry This includes backfilling and ramming of the trench after placing the joint closure and cable loop in the chamber without causing any damage to the same and consolidation of soil as well as disposal of soil as per plan and as advised by Employer / Engineer.	No.	14	3,920.34	54,884.76	
107	050200	Supply of 24 VDC Electrically operated complete lifting barrier gate assembly with dual tone warning bell(hooter) and all accessories for LC gate as per RDSO specification /SPN/208/2012/version 2.0 and Amendment No.1 or Latest.	set	2	2,68,204.24	5,36,408.48	RDSO
108	050600	Installation, wiring, testing and commissioning of electrical/mechanical lifting barrier as per requirement.	No.	2	29,845.76	59,691.52	
109	211000	Supply, transport and filling of the RCC joint chambers with dry sand / stone dust mixed with anti-termite chemical as required in specification up to 400 mm. Depth and the cover is refixed.	No.	14	655.08	9,171.12	Consignee

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
110	150500	Supply of basic material to construct a maintenance free Ring earth with four pits (for interlocked station, LC gates/IB signalling application) for achieving less than one Ohm as per RDSO spec. no. RDSO/SPN/197 ver.1.0 or latest. consisting of a) Copper bonded steel electrode of 3.0 m long, 17.0 mm Dia with copper bonding thickness mini 250 micron and UL listed and marked --4 nos. b) Earth enhancement compound of RDSO approved brand supplied in sealed bags of min 10 kgs-12 nos. c) Copper strip of 150 mm X 25 x 6 mm to terminate earth rod - 4 nos. d) Copper strip of 300 X 25 x 6 mm (MEEB) - 4 nos. e) Copper strip of 150 X 25 x 6 mm (SEEB) - 4 nos.	Nos.	1	79,137.29	79,137.29	RDSO
111	150600	Installation of Maintenance free ring Earth with Four Pits (for interlocked LC Gates/IB Signalling Application) as per RDSO specifications No. RDSO/SPN/197 ver.1.0 or latest as per Technical Specification	Nos.	1	34,508.47	34,508.47	
112	120600	Supply of Integrated Power Supply (IPS) systems with battery set of 200AH (VRLA) 5 KVA generally configured to Spec No.: RDSO/SPN/165/2012 (Ver.3.0) modified as per attached sketch for suitable for midsection LC gate/IBS.	Nos.	1	11,44,792.00	11,44,792.00	RDSO
113	120400	Transportation, Erection and wiring of IPS to power distribution panel. This includes transportation of IPS batteries from stores to the site, Erection of IPS panels on teakwood planks, interconnection between panels and wiring the IPS to power distribution panel using 10 sq. mm. multi-strand copper cable. The wiring should be done neatly using Aluminium ladder with phenolic sheet (Aluminium ladder, phenolic sheet of thickness 6 mm, teak wood plank of width 150 mm and thickness 25mm, 10 sq. mm multi-strand copper cable and all other miscellaneous materials to be supplied by the contractor).	Nos.	1	65,648.31	65,648.31	

Schedule - A (SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
114	212000	Supply, installation, termination and testing of Rack/Wall mountable FDMS and termination IN and OUT 24 fiber OFC cables (with all connecting materials) routing/dressing fiber as per direction of engineer/In charge. this work includes termination/splicing of fibers and testing of fibers in the section/block and report of fiber to be submitted in hard and soft copy.	Nos.	12	20,553.39	2,46,640.68	Consignee
115	140400	Supply of Industrial grade Modem for Automatic changeover of Media in redundant channels for data transmission on OFC/Quad cable.	Pair	2	33,773.73	67,547.46	RDSO
116	140500	Installation, Configuration, testing and commissioning of Modems for Automatic changeover of Media working on redundant channels for data transmission on OFC/Quad cable. This includes wrapping of E1 connections etc.	Pair	2	21,214.41	42,428.82	
117	170400	Supply, Design, Installation, Testing and Commissioning of Multi Section Digital Axle Counter (MSDAC) complete system as per RDSO Specification No. RDSO/SPN/176/2013 version.3 with latest amendments STR No. SIQ 0001 Ver.2.0 or latest. MSDAC Reset procedure shall be as per SWR MSDAC Reset policy. Tenderer shall design the scheme for provision of required number of evaluators, reset equipment's, trackside junction boxes, detection points and track clearance relays etc. and shall be submitted along with the offer. Remote Diagnostic System shall be provided at station. Length of the cable required for each DP and Rail Type will be specified at the time of issuing call letter. [This also includes supply of 10% all types of spare cards, LV Boxes, Wheel sensors and other essential modules as specified in RDSO Spec., it shall be rounded to nearest integer subjected minimum of one item. One set of Specialized Tool a Measuring equipment's as per RDSO specifications shall be supplied (Per detection Point = DP). Set means 4 DP, 3 Track section for UP & 4 DP, 3 Track section for DN, i.e., Required 4DP+4DP = 8 DP.	Per DP	8	3,28,442.00	26,27,536.00	RDSO
					Schedule - A (SOR items) Total in ₹	**3,22,06,957.15**	

Schedule - B (Non SOR items)							
Sl. No.	**SOR No. 2025**	**Description**	**Unit**	**Qty.**	**Estimated Rate (₹)**	**Amount (₹)**	**Inspection by**
1	NS-1	Engaging mechanical excavators like JCB or other machineries for regarding and levelling the formation, dismantling any infringing structures, clearing and removing debris etc., with all leads and lifts etc., complete and as per the instruction of Railway/Bi-RIDE representative at site. Unit Hour means Per Hour.	Per Hour	50	1110.56	55528.00	
2	NS-2	Complete indoor work installation, wiring and commissioning for mid section LC gate/ IBS. Testing and commissioning the entire signalling installations jointly with the Railway representative at site at the stations / LC gates covered under various schedules of the contract, and ensuring that all the signalling gears are installed and adjusted as per the existing rules. The work also involves supply of required number of bound registers with good quality papers with all updated details of cable meggering, relays, batteries, block joints, route cancellation, relay room key entries, block instrument key, earth resistance etc., and handing over to Railways (supply of 'As mades' is not covered in this schedule). Testing commissioning of LC gates.	LC gate/ IBS	1	116075.22	116075.22	
Schedule - B (Non SOR items) Total in ₹						**1,71,603.22**	