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**SOUTHERN RAILWAY
ELECTRICAL GENERAL BRANCH
MADURAI DIVISION**

Tender for Madurai Division: Repair Attention of Lights in Madurai, Tirunelveli & Rameswaram Pit lines and improvements in Coaching depot facilities.

Issued By:

**Senior Divisional Electrical Engineer/General Service
Southern Railway, Madurai -16.
(For and on behalf of the President of India).**

INDEX

1.0	ELIGIBILITY CRITERIA	3
2.1.	Technical Eligibility Criteria:.....	3
2.2.	Financial Eligibility Criteria:.....	3
2.0	LIST OF DOCUMENTS/DETAILS TO BE ATTACHED / UPLOADED:	4
3.0	GENERAL CONDITIONS OF CONTRACT	5
4.0	SPECIAL CONDITIONS OF CONTRACT	11
5.0	SCHEDULE OF WORK.....	15
6.0	EXPLANATORY NOTES OF SCHEDULE OF WORK	17
7.0	DRAWINGS:	22
8.0	ANNEXURE	24

1.0 ELIGIBILITY CRITERIA

2.1. Technical Eligibility Criteria:

The tenderer must have successfully completed or substantially completed any one of the following categories of work(s) during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

1. Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or
2. Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or
3. One similar work costing not less than the amount equal to 60% of advertised value of the tender.

Definition for the similar work:

“ Works involving wiring / lighting with 240 Volt, 1 Phase and 415 Volt, 3 Phase system with control gear and protection arrangements in residential buildings or service buildings or railway stations / yards or colony / highway lightings “ .

NOTE:

1. Work experience certificate from private individual shall not be considered. However, in addition to work experience certificates (as per format enclosed in Annexure -6) issued by any Govt. Organization, 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 at least 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.
2. 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.

2.2. Financial Eligibility Criteria:

Financial Eligibility Criteria: The tenderer must have minimum average annual contractual turnover of V/N crores or “V” crores, 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 in GCC works April 2022, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

For further more details refer clause 10.1 and 10.2 of GCC April 2022

2.0 LIST OF DOCUMENTS/DETAILS TO BE ATTACHED / UPLOADED:

1. Documents for Technical Eligibility Criteria
2. Documents for Financial Eligibility Criteria
3. **Bid Security (EMD):-**
 - a. **Submission of DIPP Certificate** for exemption from remitting EMD. MSME and UDYAM certificates will not be considered.
 - b. **Submission of Bank Guarantee:** The Bid Security shall be deposited either in cash through e-payment gateway or submitted as Bank Guarantee bond from a scheduled commercial bank of India or as mentioned in tender documents. The Bank Guarantee bond shall be as per **Annexure VIA** and shall be **valid for a period of 90 days beyond the bid validity period.**

In case, **submission of Bid Security in the form of Bank Guarantee**, following shall be ensured:

1. A scanned copy of the Bank Guarantee shall be uploaded on e-Procurement Portal (IREPS) while applying to the tender.
 2. The original Bank Guarantee should be delivered in person to the official nominated as indicated in the tender document within 5 working days of deadline of submission of bids.
 3. Non submission of scanned copy of Bank Guarantee with the bid on e-tendering portal (IREPS) and/or non-submission of original Bank Guarantee within the specified period shall lead to summary rejection of bid.
 4. The Tender Security shall remain valid for a period of 90 days beyond the validity period for the Tender.
4. **Annexure-V(A):**

In case of other than Company/Proprietary firm, this certificate is to be submitted by **each member of a Partnership Firm**/Joint Venture (JV) /Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc., as the case may be. **Non-submission of the above Certificate (s) by the bidder shall result in summarily rejection of his/their bid.**
 5. Annexure-VIB should be signed by the tenderer and attested by CA. Filled form of Annexure-VIB along with Audited Balance sheets to be uploaded by the tenderer for Standard Financial Criteria. **Non-submission of the above Certificate by the bidder shall result in summarily rejection of his/their bid**
 6. Partnership Firm:-

The following documents to be submitted by the Partnership firm.

 - 1) Partnership Deed.
 - 2) Power of Attorney.
 - 3) **Annexure-V(A) – To be submitted by all the partners of the firm individually** failing which their offer will be summarily rejected.
 7. Electronic Fund Transfer Mandate Form (Enclosed in Annexure – 7) along with a Cancelled cheque.
 8. Registration on GSTIN number
 9. PAN Card

3.0 GENERAL CONDITIONS OF CONTRACT

1. This is a works contract. The special conditions of contract (both General and Technical) should be read in conjunction with the Indian Railways Standard General Conditions of Contract (GCC, April 2022) along with correction slips. The GCC, April 2022 is also uploaded along with this document. The said GCC, April 2022 along with the Amendments/correction slips issued from time to time shall be binding on the contract.
2. **Mode of payment:** Payment will be arranged only through Electronic Fund Transfer System. Tenderers should furnish the details in Electronic Fund transfer mandate form attached (Annexure- 7) with the tender document. Payment will be arranged through the Senior Divisional Finance Manager, Southern Railway, Madurai. No advance payment will be made against this contract.
3. **Contract value:** The contract value quoted shall be inclusive of all taxes, GST and duties etc. The accepted contract value must be firm till the completion of works.
4. Income Tax, GST/other taxes, if any, as applicable will be deducted from Contractor's bill at the percentage notified by the government.
5. Railway Conservancy Charges will be recovered as per Railway Board Letter No:F(X) 1/95/1/1 dated 07.09.2021

Avg. No. of Labourers / workman employed per day	Conservancy Cess charges to be recovered (per month)
1 to 5	₹159/-
6 to 10	₹312/-
11 to 25	₹ 785/-
26 to 50	₹ 1,143/-
51 to 100	₹ 1,534/-
101 to 200	₹1,926/-
201 to 300	₹ 2,318/-
301 to 750	₹ 2,676/-
751 to 1500	₹5,382/-
1501 to 3000	₹10,768/-
3000 & over	₹21,508/-

6. The contractor is liable to pay the taxes as stipulated in the GST Act and Rules and as per the clause No.6 & 37 of GCC April 2022. Also, the contractor should furnish the details of GST to be deducted from the contractor's bill.
7. The Contractor shall comply with the provision of the contract labour (Regulation and Abolition) Act, 1970 and the Contract labour (Regulation and Abolition) Central Rules 1971 as modified from time to time, wherever applicable and shall also indemnify the Railway from and against any claims under the aforesaid Act and the Rules as detailed in clause No. 55A of 'General Conditions of Contract – April 2022'
8. The contractor shall comply with the provisions of para 30 and 36-B of the Employees provident Fund Scheme, 1952; Para 3 and 4 of Employees' Pension Scheme, 1995; and Para 7 and 8 of Employees Deposit linked Insurance scheme, 1976; as modified from time to time, through enactment of "Employees Provident Fund & Miscellaneous Provisions Act, 1952, wherever applicable and shall also indemnify the Railway from and against any claims under the aforesaid Act and the Rules" as per Clause No. 55B of 'General Conditions of Contract'
9. The Tenderer shall adhere payment of minimum wages act and all other labour legislations.
10. Updation of Labour data on Railway's Shramik Kalyan portal:
 1. Contractor is to abide by the provisions of Payment of Wages Act & Minimum Wages Act in

terms of clause 54 and 55 of Indian Railways General Conditions of Contract. In order to ensure the same, an application has been developed and hosted on website 'www.shramikkalyan.indianrailways.gov.in'. Contractor shall register his firm/company etc. and upload requisite details of labour and their payment in this portal. These details shall be available in Public domain. The Registration/updation of Portal shall be done as under:

- a) Contractor shall apply for Onetime registration of his company/firm etc. in the Shramikkalyan portal with requisite details subsequent to issue of Letter of Acceptance. Engineer shall approve the contractor's registration on the portal within 7 days of receipt of such request.
 - b) Contractor once approved by any Engineer, can create password with Login ID (PAN No.) for subsequent use of portal for all LOAs issued in his favour.
 - c) The contractor once registered on the portal, shall provide details of his Letter of Acceptance (LOA)/Contract Agreements on shramikkalyan portal within 15 days of issue of LOA for approval of concerned Engineer. Engineer shall update (if required) and approve the details of LOA filled by contractor within 7 days of receipt of such request.
 - d) After approval of LOA by Engineer, contract shall fill the salient details of contract labours engaged in the contract and ensure uploading of each wage payment to them on shramikkalyan portal on monthly basis.
 - e) It shall be mandatory upon the contractor to ensure correct and prompt uploading of all salient details of engaged contractual labour & payments made thereof after each wage period.
2. While processing of any 'On Account bill' of 'Final bill' or release of 'Advances' or 'Performance Guarantee/Security Deposit', contractor shall submit a certificate to the Engineer or Engineer's representatives that "I have uploaded the correct details of contract labours engaged in connection with this contract and payments made to them during the wage period in Railway's Shramikkalyan portal at www.shramikkalyan.indianrailways.gov.in till _____Month, _____Year"
11. **Vitiation Clause:** During the course of execution of the work, if there is any variation in the executed quantities over the quantities as per the Agreement, the inter se position of the tenderers may get altered. Under such circumstances the successful bidder is bound to accept the lowest value to avoid vitiation of contract.

12. RAILWAY STORES:

- a) If any material other than those specified in the Annexure - I is supplied by the Railway either at the contractor's request or suo moto in order to prevent any possible delay in the execution of the works likely to occur due to the contractor's inability to make adequate arrangement for supply thereof or otherwise, recovery will be made from contractor's bill at the issue rate or market rate prevailing at the time of supply, whichever is higher plus 5% on account of initial freight and 2 % on account of incidental charges together with supervision charges at 12.5% of the total cost inclusive of material, freight and incidental charges. Freight between the Railway's source of supply and site of work shall be to the Contractor's account. For example:

1.	The cost of material	-	Say Rs.	100.00
2.	Initial freight @ 5%	-		5.00
3.	Incidental charges @ 2%	-		2.00
4.	Total	-		107.00
5.	Supervision charges @ 12.5%	-		13.38
6.	TOTAL	-		120.38

b) If, however, the material required by the contractor is not available in Railway's stock or the Railway decides not to supply the same, be that for whatever reason, the Railway shall not be bound to arrange for the supply at cost quoted above, or at any other cost nor will this fact be accepted as an excuse for delay in execution of works.

c) If the contractor runs short of materials and such materials are available in the Railway's stock, the materials may be supplied by the Railway suo moto or on loan basis to the contractor. In case of issue of materials on loan basis, the contractor will return the same on receipt of the supplies or within 3 months whichever is earlier. Issue of materials on loan basis is subject to a written request by the contractor. If the contractor fails to return the materials issued to him on loan basis within the above mentioned period, recovery will be made from the contractor's bill as detailed in clause No.8 (a) above.

13. CONTRACTOR'S SUPPLY ITEMS:

- a) All the materials required for execution of this work except those specified in Annexure – I have to be arranged by contractor.
- b) The contractor has to make his own arrangements for transporting men & materials to the site of work
- c) The contractor has to make his own arrangements for storing the materials proposed to be utilized by him. No responsibility will be taken by the Railways for the loss of contractor's materials.
- d) The contractor should have the expertise and all kinds of special tools/ equipments for execution of the work as per the schedule. The contractor has to make available all the tools and plants required for executing this work.

14. FINAL ACCEPTANCE:

- a) The final acceptance of the entire equipment installed under this contract shall take effect from the date of expiry of the period of guarantee (Maintenance period), provided that the Contractor has complied fully with his obligations against the contract as per the terms & conditions of the agreement.
- b) If on the other hand, the Contractor has not so complied with his obligations against the contract as per the terms & conditions of the agreement, the Railway may either extend the period of guarantee until the necessary works are carried out by the contractor or carry out those works or have them carried out suo moto on behalf of the contractor at the contractor's expense. After expiry of the period of guarantee, a certificate of final acceptance shall be issued by the Railway.

15. QUALITY ASSURANCE OF MATERIALS:

- a) All the equipments, materials, fittings and components will be subject to quality control program of the manufacturer, being part of the quality assurance program of the contractor. The materials may also be inspected by the Senior Divisional Electrical Engineer /General, Southern Railway, Madurai or his authorized representative at the manufacturer's works or as desired by Senior Divisional Electrical Engineer /General, Southern Railway, Madurai. Senior Divisional Electrical Engineer /General, Southern Railway, Madurai or his authorized representative will have the right to be present during all the stages of manufacture and shall be accorded all reasonable facilities for inspection and testing as well as to examine the stage inspection report of the manufacturer in addition to the quality audit which the contractor may institute as a part of his program so as to satisfy himself that the materials are in accordance with specifications, approved drawings and designs and Railways prescribed quality assurance standards.
- b) The following ledgers are to be maintained at site in connection with this Works Contract:
 - 1. Site Order book - By Contractor
 - 2. Hindrance Register - By Contractor
 - 3. Material Transaction Register- Both by Railways and the Contractor
 - 4. Daily Progress & Labour Register. - By Contractor.

These registers are to be maintained at site and should be produced during inspection by officials. The formats for maintaining the above-mentioned registers are furnished at

16. SAFETY MEASURES:

- a) The work should be carried out in the presence and under the guidance of the authorized representative of the Senior Divisional Electrical Engineer /General, Southern Railway, Madurai.
- b) The contractor shall take all precautionary measures in order to ensure the protection of his own personnel moving about or working on the Railway premises, but shall then conform to the rules and regulations of the Railway, if and when, in the course of the works there is likely to be any danger to persons in the employment of the contractor due to running traffic while working in the Railway siding and premises. The contractor shall apply, in writing, to the Railway to provide flagmen or lock-out men for protection of such persons. The Railway will, however, decide as to whether it is necessary to post such flagmen for various types of work and also the number of such men required to protect the gang or gangs of contractor's staff working at site. The Railway shall remain indemnified by the contractor in the event of any accident occurring in the normal course of work arising out of the failure of contractor or his men to exercise reasonable precaution at all places of work whether or not the Railway decides to post flagmen at any particular site of work. The flagmen will be appointed by the Railway and no expense on this account will be charged from the contractor.
- c) Blasting of rock for foundation work shall be done only after due notice is given to the Railway and time/s and date/s for blasting operation agreed to by the Railway. Blasting, if required to be done in the vicinity of the track, shall not be undertaken until the Railway's flagmen on duty take necessary steps to protect trains and the track is adequately protected by the contractor against damages by blasted rock. The contractor shall follow detailed instructions, which will be issued to him regarding blasting operations in the vicinity of tracks.
- d) The contractor shall ensure the unauthorized, careless or inadvertent operation of switchgear, which may result in accident to staff and/or damage to equipment, does not occur.
- e) The work is to be executed without causing damage to the existing arrangements of OHE at site/other railway properties at site. Defect / damages caused, if any, due to contractor's work at site, it should be rectified at the cost of the contractor.
- f) The execution of the work should in no way impede normal running of train services or shunting operation.
- g) While undertaking digging work in the vicinity of underground Signalling, Electrical and Telecommunication cables, special care shall be taken by the Contractor to ensure that no damage to these cables are caused due to their work. In case of any cable damage, the cost of the loss (either direct or indirect) caused by the damage shall be borne by the Contractor. The direct loss includes the cost of the cable damaged including the cost of restoration and indirect loss may include the resultant loss caused due to the dislocation in traffic and the cost of the other equipments damaged which have direct connection with the damaged cable etc.
- h) The contractor shall not permit their staff to work on the posts carrying overhead conductors or any other current carrying parts unless he had received in writing the permit to work from the authorized Railway representatives. He shall have to ensure that the supply lines are dead and earthed before commencing the work on the overhead conductors or any other current carrying parts.
- i) The Tenderer/Contractor must ensure the safety of the labourers engaged by him while executing the work and the Railway will not be responsible for any injury sustained by the labourers due to any accident or any other fatalities.
- j) The contractor shall obtain special permit from the Railway to enable his workers to work at, to bring to or to take materials from work spot.
- k) The work should be carried out without any interference to the normal working of Railway track & structure. The contractor shall be responsible for any loss to Railway and public property and if it occurs during the course of execution, then the Railway reserves the right

to have the damages made good by the contractor.

- l) The contractor shall be responsible for the safe custody of all equipment till provisional acceptance. Should the situation warrant posting of armed guards for protection from thefts, the same will be provided by the Railway, at his own cost and at his discretion. The contractor shall apply to the Railway explaining the circumstances under which posting of armed guards is considered necessary by him. At the same time, the details of the requirement and the number of personnel of armed guards, where and when required, shall also be furnished.
- m) During stringing operations, every care shall be taken to prevent conductors hanging low over tracks on which traffic block has not been given. All conductors shall be pulled out before traffic block is cleared so that such conductors do not infringe with moving traffic.
- n) The contractor shall abide by all Railway regulations and Indian Electricity Rules, 1956 in force for the time being and ensure that the same are followed by his Representative, Agent or sub-Contractor or workmen.
17. **RELEASED MATERIALS:** All the Released/Retrieved materials if any, shall be handed over to Railway after stacking at a convenient place at the office of Senior Section Engineer /Electrical / Works/ Madurai as directed by the Engineer in charge at free of cost. For every contract, a dumping spot should be identified as per the instruction of Senior Section Engineer /Electrical / Works/ Madurai and the debris should be dumped there only.
18. No free Electric power supply will be supplied by Railway. However, power supply if feasible will be extended by Railways on terms applicable to outsiders. For testing purpose only free power supply will be given.
19. **Performance Guarantee (PG):** The successful bidder shall have to submit 5% of total contract value as performance guarantee (PG) within 21 (Twenty one) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 21 (Twenty one) days and up to 60 days from the date of issue of LOA may be given by the authority who is competent to sign the contract agreement. However, a penal interest of 12% per annum shall be charged for the delay beyond 21 (Twenty one) days, i.e. from 22nd day after the date of issue of LOA. Further, if the 60th day happens to be a declared holiday in the concerned office of the Railway, submission of PG can be accepted on the next working day.

In all other cases, if the contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract is liable to be terminated. In case contract is terminated the bidder shall be banned from submission of bids in any works/ service tender issued by Indian Railways for a period of 12 months from the date of such banning done on e- platform IREPS.

The failed contractor shall be debarred from participating in re-tender for that work.

For more details about PG refer GCC April-2022

20. Security Deposit: The security deposit will be deducted as Clause 16(1) of GCC April- 2022.

21. Bid security

1. Submission of Bid security:

- a) The tenderer shall be required to submit the Bid Security with the tender for the due performance with the stipulation to keep the offer open till such date as specified in the tender, under the conditions of tender. The Bid Security shall be as under:

Value of the Work	Bid Security
For works estimated to cost up to ₹ 1 crore	2% of the estimated cost of the work
For works estimated to cost more than ₹ 1 crore	₹ 2 lakh plus ½% (half percent) of the excess of the estimated cost of work beyond ₹ 1 crore subject to a maximum of ₹ 1 crore

Note:

- (i) The Bid Security shall be rounded off to the nearest ₹100. This Bid Security shall be applicable for all modes of tendering.
 - (ii) Any firm recognized by Department of Industrial Policy and Promotion (DIPP) as 'Startups' shall be exempted from payment of Bid Security detailed above.
 - (iii) Labour Cooperative Societies shall submit only 50% of above Bid Security detailed above.
- b) It shall be understood that the tender documents have been issued to the tenderer and the tenderer is permitted to tender in consideration of stipulation on his part, that after submitting his tender he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to the Engineer. Should the tenderer fail to observe or comply with the said stipulation, the aforesaid amount shall be liable to be forfeited to the Railway.
- c) If his tender is accepted, this Bid Security mentioned in sub para (a) above will be retained as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the Standard General Conditions of Contract. The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the Railway shall not be responsible for any loss or depreciation that may happen thereto while in their possession, nor be liable to pay interest thereon.
2. The Bid Security shall be deposited either in cash through e-payment gateway or submitted as Bank Guarantee bond from a scheduled commercial bank of India or as mentioned in tender documents. The Bank Guarantee bond shall be as per **Annexure-VIA of GCC** and shall be valid for a period of 90days beyond the bid validity period.
3. **In case, submission of Bid Security in the form of Bank Guarantee, following shall be ensured:**
- (i) A scanned copy of the Bank Guarantee shall be uploaded on e-Procurement Portal (IREPS) while applying to the tender.
 - (ii) **The original Bank Guarantee should be delivered in person to the official nominated as Indicated in the tender document before closing date for submission of bids (i.e excluding the last date of submission of bids)**
 - (iii) Non submission of scanned copy of Bank Guarantee with the bid on e-tendering portal (IREPS) and/or non submission of original Bank Guarantee within the specified period shall lead to summary rejection of bid.
 - (iv) The Tender Security shall remain valid for a period of 90 days beyond the validity period for the Tender.
 - (v) The details of the BG, physically submitted should match with the details available in the scanned copy and the data entered during bid submission time, failing which the bid will be rejected.
 - (vi) The Bank Guarantee shall be placed in an envelope, which shall be sealed. The envelope shall clearly bear the identification "**Bid for the ***** Project**" and shall clearly indicate the name and address of the Bidder. In addition, the Bid Due Date should be indicated on the right hand top corner of the envelope.
 - (vii) If the envelope is not sealed and marked as instructed above, the Authority assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.

4.0 SPECIAL CONDITIONS OF CONTRACT

1. Prior approval is required from Sr.DEE/G/MDU for supply of supply items. Quantity mentioned in tender is provisional, it may increase or decrease based on site condition. Before supply of materials contractor and Railway supervisor jointly inspect the site and arrive actual required quantity of supply materials.
2. The works shall only be executed based on approved **Drawing/Layout plan** issued by Railways. The contractor has to submit the proposed arrangements in the relevant Drawing/Layout/plan with Bill of materials (BOM) and shall get approval from Senior Divisional Electrical Engineer/General, Madurai. In case of any deviation required during the execution of work in the approved drawing, the same shall also got to be approved.
3. **Materials:** All materials / fittings /appliances etc. used in electrical installations shall conform to BIS Specifications wherever applicable. In case of the materials for which BIS Specifications do not exist, prior approval shall be obtained from Senior Divisional Electrical Engineer /General, Southern Railway, Madurai.
4. All sample materials including switchgears shall get prior approval before using. Only reputed make of materials should be used.
5. **RAILWAY SUPPLY ITEMS:**
 - a. The list of Railway supply materials are furnished in **Annexure-1**. All other materials required for the successful completion of the work shall be arranged by the Contractor.
 - b. All Railway materials to be issued by Railways will be issued to the contractor as per relevant clauses of this Contract. The contractor shall make necessary arrangements so as to protect the Railway materials from pilferage/theft/loss and maintain them in good condition in such a way that while in storage they do not suffer any deterioration in quality in any manner whatsoever and shall have to compensate the Railways, in case the materials are considered to have been damaged, deteriorated, or have come to such a state that the same cannot be allowed to be installed/used. Railway will not be responsible for any damage/loss/deficiency/deterioration in quality suffered by the materials issued to them (Please refer other conditions of contract). The contractor shall maintain proper account for the materials issued to their workman for installation and the remaining quantity of the material. All Railway materials shall be exclusively used for installation/use for the purpose for which it is issued and the contractor shall not divert/remove the materials issued to Railways for any other work not connected with this tender enquiry.
 - c. Railway supplied materials will be supplied at the office of Senior Section Engineer / Electrical /Works/Madurai.
6. **INSPECTION:**
 - a. All materials coming under the contractor's scope of supply shall be inspected by RITES organization for individual item value is more than Rs. 5 lakhs in addition to manufacturers test certificate with sample checks to ensure proper quality of goods. Inspection charges shall be borne by the Railway, whether the inspected material is finally utilized in the work or not. A copy of all the test certified/Test results of test conducted by the inspecting agency shall be submitted along with bills. For materials of purchase value below Rs. 5 lakhs/item inspection shall be done by the F with the sample. (Suppliers Invoice and Material inspection certificate by RITES/consignee inspection must be enclosed for material acceptance).
 - b. For re-inspection, Contractor has to borne the inspection charges.
7. **COMPETENT SUPERVISORS**
 - a. The erection of all equipment according to the specification will be done by the

contractor at his cost. For this purpose, the contractor shall employ competent representatives (**Minimum qualification of Diploma in Electrical and Electronics Engineering or ITI passed with Electrical B license issued by a Government Licensing Authority**) to supervise the erection of the equipment and the carrying out of the works at all stages. The said representatives shall be present at site during working hours and any written orders or instructions which the Railway's Engineers may give to the said representatives of the contractor shall be deemed to have been duly given or communicated to the contractor.

- b. The contractor or his representatives will accompany the Railway's Engineers on inspection or proceed to their offices whenever called upon to do so.
 - c. The contractor's representatives shall give necessary direction to his workmen and ensure that they execute their work in sound and proper manner. He shall employ only such supervisors, workmen and laborers for the execution of any of the works as are careful and skilled in their respective trades and callings, If and whenever required by the Railway's the contractor shall submit a correct return showing the names of all personnel employed by him for the contract. In the event of the Railway's Engineer being of the opinion that the contractor is not employing a sufficient number of competent staff as is necessary for the proper execution of the works within the time prescribed the contractor shall forthwith on receiving intimation to this effect take on the additional number of staff as advised by the Railway's Engineer.
8. **PENALTY CLAUSE:** In the case of bursting of power block, shortfall in work & skipping of work, the Senior Divisional Electrical Engineer/General service/Madurai's decision will be final and binding based on the Lump sum penalty on case to case basis with respect to the nature and offence and inconvenience caused to the Railway reported by the concerned filed supervisor.
9. **PAYMENT CLAUSE:** No advance payment shall be made to the contractor. Part payments for completed portions of work will also be arranged. Payment will be arranged for the quantities executed based on the measurement recorded by the Senior Section Engineer / Electrical /Works/Madurai time to time only through Electronic Fund Transfer System.

10. GUARANTEE/WARRANTY:

- a. The Contractor shall guarantee satisfactory working of the installation erected by him for a **period of 12 months** from the date of commissioning. The guarantee for spares should be coincident with the guarantee for erected equipment.
- b. For the period of guarantee the contractor have an experienced Engineer and necessary equipment to attend to any defective installation resulting from defective erection and/or defects in the equipment supplied by the contractor. This engineer shall not attend to rectification of defects which arise out of normal wear and tear and come within the purview of routine maintenance work. The Contractor shall bear the cost of modifications, additions or substitution that may be considered necessary due to faulty material, design or workmanship for the satisfactory working of the equipment. The final decision shall rest with the Senior Divisional Electrical Engineer, Southern Railway, Madurai or his representative.
- c. During the period of Guarantee/Warranty the contractor shall be liable for the replacement at site of any parts which may be found defective in the fittings & Components, arising from faulty design, materials, workmanship or negligence in any manner in the part of the contractor provided always that such replaced items are promptly returned to the contractor if so required by him at his (contractor's) own expenses. In case of type defects in contractor's equipment and components detected during guarantee period, contractor shall replace all such items irrespective of the fact whether all such cost of repairs carried out on his behalf by the purchaser at site. In such a case, the contractor shall be informed in advance of the works proposed to be carried out by the purchaser.

- d. If it becomes necessary for the contractor to replace or renew any defective portion of the fittings or components under the para aforesaid then the provision of the said para shall also apply to the portions of the fittings & components so replaced and renewed until the expiry of six months from the date of such replacement or of renewal or until the end of the above mentioned period, whichever is later. Such extension shall not apply in case of defects of a minor nature the decision of the Senior Divisional Electrical Engineer /General, Southern Railway, Madurai or his successor/nominee being final in the matter. If any defect be not remedied within a reasonable time during aforesaid period the purchaser may proceed to do the work at the contractor's risk, and expense, but without prejudice to any other rights and remedies which the purchaser may have against the contractor in respect of such defects or faults.
- e. Any materials, fitting or components supplied shall also be covered by the provisions of this paragraph. The liability of the contractor under the guarantee/warranty will be limited to re-supply of equipments, components and fittings.
- f. Such re-supply shall be effected at the contractor's depot or in the event of closure of the depot at the stores depot of the Engineer-in-charge of maintenance of overhead equipment of the section covered by the contract.
- g. In the case of materials, components, fittings and equipments supplied by the purchaser, no liability will rest on the contractor for failures on account of defective materials or workmanship and for any consequential damages. Such defective materials if not yet erected on line will be returned by the contractor to the purchaser and quantities will be considered for the purpose of final reconciliation over and above allowance.

11. Warranty of LED luminaires and BLDC Fans:

The warranty period of LED lights and BLDC fans shall be 5 years from the date of supply or date commissioning whichever is later and payment will be made as per following terms.

- a. 70% of the accepted contract value after supply of LED luminaries and BLDC fans.
- b. 5 % of contract value after erection, testing and commissioning of luminaries and BLDC fans.
- c. 25 % at the rate of 5% at the end of every year of warranty period of 5 years for LED luminaries and BLDC fans. **(Or)** 25 % of deferred payment may be released on submission of a valid Bank Guarantee (BG) equivalent to the 25% of contract value by the contractor which shall be retained by the Railway for the entire warranty period.

Warranty/maintenance period other works shall be one year for workmanship and material from the date of completion

12. For supply of cables

- a. should be accepted only with original NABL/WTC test certificates.
- b. All NABL/WTC test certificates for cables must include the following details
 - i. Batch No. / Drum No./ Serial No. of the tested cable.
 - ii. LOA/Agreement No. as a reference , with the Railway Mentioned as the Consignee/Customer.
- c. The WTC should be issued on the official letter head of the manufacturer (OEM), additionally, documents supporting the purchase of materials from an ISI certifies manufacturer should be submitted along with the materials.

13. For returning of Security Deposit of this contract, warranty period of 12 Months shall be considered.

14. Before commissioning of the installation, the following tests shall be conducted and the results should be as per standards.
- i. Insulation test.
 - ii. Earth continuity test path
 - iii. Earth resistance value etc.

5.0 SCHEDULE OF WORK

SW-I: Lighting Arrangements

S.No	Description	Unit	Qty	Rate	Total
1	SETC of Cable Tray	M	7570	₹ 620.00	₹ 46,93,400.00
2	Supply, erection, testing and commissioning of 25X3 mm hot dip Galvanised GI earth Strip	M	7570	₹ 73.00	₹ 5,52,610.00
3	Laying of LTUG Cable	M	7570	₹ 25.00	₹ 1,89,250.00
4	Supply, erection, testing and commissioning of Cable Looping box	No	105	₹ 4,530.10	₹ 4,75,660.50
5	Supply, erection, testing and commissioning of Panel Box with one number of 100A FP, MCCB -1 No, 50A, TP Contactor - 2 No's, Analog Timer - 1 No with required wiring inside the panel.	No	19	₹ 36,339.00	₹ 6,90,441.00
6	Supply, erection, testing and commissioning of supply of control panel unit with 3 No's of 100W 24V SMPS with required accessories and fasteners complete.	No	55	₹ 17,491.14	₹ 9,62,012.70
7	Design, fabrication, supply of 16W LED light fitting,	No	1675	₹ 2,420.00	₹ 40,53,500.00
8	Erection, Testing and commissioning of 16 W LED light fittings including necessary fixing accessories and fasteners complete..	No	1450	₹ 207.52	₹ 3,00,906.90
9	Supply, erection, testing and commissioning of earthing arrangements	No	20	₹ 7,900.00	₹ 1,58,000.00
10	Supply, erection, testing and commissioning of 25mm PVC Pipe	No	3000	₹ 50.00	₹ 1,50,000.00
11	Supply and wiring of 2 Runs of 1.5 Sqmm flexible PVC insulated Copper wire	No	3000	₹ 46.00	₹ 1,38,000.00
12	Supply, erection, testing, commissioning and termination of IP 67 junction Box with 2 Way Connector with required accessories and fasteners complete.	No	400	₹ 345.00	₹ 1,38,000.00
13	Breaking of cement Concrete	CUM	2	₹ 630.00	₹ 1,260.00
14	Provision of Cement Concrete	CUM	2	₹ 5,900.00	₹ 11,800.00
15	Subtotal-I				₹ 1,25,14,841.10

SW-II: Revamping of Substation

S.No	Description	Unit	Qty	Rate	Total
1	Supply and laying of 6 SWG GI wire for earth continuity	M	125	₹ 30.63	₹ 3,829.28
2	Excavation of trench in all kinds of soil including refilling as per specification	No	20	₹ 406.80	₹ 8,136.00
3	Laying of HDPE pipes	No	125	₹ 32.54	₹ 4,068.00
4	Drawing of cable HDPE Pipe	No	125	₹ 41.58	₹ 5,198.00
5	Supply , Erection , testing and commissioning of 1250A, 50KA, FP, ACB with electronic Relay in place of defective ACB in the existing panel.	No	2	₹ 2,35,750.00	₹ 4,71,500.00

S.No	Description	Unit	Qty	Rate	Total
6	Supply, erection, testing and commissioning of Main control panel made up of not less than 1.6mm thick CRCA sheet, floor mounted, powder coated, aluminium busbar with following switch gears with required accessories and fasteners in place of existing defective panel. Incomer – 800A, 36KA, FP, Thermal Magnetic, MCCB With Rotary Handle -1 No Changer over Switch – 800A, FP, with Rotary handle – 1 No Feeder - 400A, 25KA, FP, Thermal Magnetic, MCCB with Rotary Handle -2 No's Feeder - 250A, 25KA, FP, Thermal Magnetic, MCCB with Rotary Handle -11 No's Feeder - 125A, 25KA, FP, Thermal Magnetic, MCCB with Rotary Handle -4 No's Feeder - 63A, 25KA, FP, Thermal Magnetic, MCCB with Rotary Handle -6 No's MFM meter with CT – 1 No	No	1	₹ 9,55,800.00	₹ 9,55,800.00
7	Supply, erection, testing and commissioning of Main control panel made up of not less than 1.6mm thick CRCA sheet, floor mounted, powder coated, aluminium busbar with following switch gears with required accessories and fasteners in place of existing defective panel. Incomer – 800A, 36KA, FP, Thermal Magnetic, MCCB With Rotary Handle -1 No Feeder - 400A, 36KA, FP, Thermal Magnetic, MCCB with Rotary Handle -1 No's Feeder - 125A, 25KA, FP, Thermal Magnetic, MCCB with Rotary Handle -3 No's Feeder - 63A, 25KA, FP, Thermal Magnetic, MCCB with Rotary Handle -2 No's MFM meter with CT – 1 No	No	1	₹ 5,95,250.00	₹ 5,95,250.00
8	Supply, erection, testing and commissioning of Sub control panel made up of not less than 1.6mm thick CRCA sheet, Wall mounted, powder coated, with following switch gears with required accessories and fasteners in place of existing defective panel. 63A MCCB – 1 No 6-40 A, TP, MCB – 12Nos	No	1	₹ 43,850.00	₹ 43,850.00
9	Supply, erection and testing of earthing arrangements	No	10	₹ 7,900.00	₹ 79,000.00
10	Subtotal-II				₹ 21,66,631.28

6.0 EXPLANATORY NOTES OF SCHEDULE OF WORK

SW-I: Lighting Arrangements

Scope of work is for Repair attention of Pit lines lighting arrangements in Madurai, Tirunelveli and Rameswaram Pit lines. It includes replacement, additional provision of Cables/Cable Tray / SMPS /LED Lights.

1	<p>Fabrication, Supply , erection, Testing and Commissioning of cable tray as per the below mentioned specification including fabrication, supply and fixing of supports channels / clamps /fixing accessories/ fasteners etc. in the existing structure/ wall.</p> <p>Specification of the Cable Tray:</p> <p>Material: Galvanized iron</p> <p>Galvanization thickness : 65 Micron Minimum</p> <p>Type : Perforated</p> <p>Thickness of tray : 2 mm Minimum</p> <p>Width of the Tray: 100 mm</p> <p>Height of the Tray : 75mm</p> <p>These items requires the inspection of RITES prior to supply if total cost of the item is more than 5 Lakhs.</p>
2	<p>Supply, erection, testing and commissioning of 25X3 mm hot dip GI earth Strip. This Earthing strip shall be fixed along the length of the Cable tray. Proper welding shall be done / two numbers of bolt & Nuts with washers shall be used for jointing.</p> <p>Specification of the Cable Tray:</p> <p>Material: Galvanized iron</p> <p>Galvanization thickness : 65 Micron Minimum</p> <p>Type : strip</p> <p>Thickness of Strip : 3 mm Minimum</p> <p>Width of the Strip : 25 mm</p> <p>These items requires the inspection of RITES prior to supply if total cost of the item is more than 5 Lakhs.</p>
3	<p>Specified size of Cable shall be laid in the excavated trench / building wall / shelter / Tray etc, duly pulling the cable from drum / loose coil, manually. Laying of cable includes provision of loose coil if any, of sufficient length at each termination point. LTUG cable so laid shall be terminated using suitable standard cable glands and aluminium crimping sockets. (Only Cable Will be supplied by Railways).</p>
4	<p>Supply, erection, testing and commissioning of cable looping Box not less than the size of 300 X300X120mm size 1.6 mm sheet steel, powder coated with 40X10mm aluminium bus bar - 4 numbers, with SMC/DMC suitable for upto and including 50 Sqmm 4 core XLPE LTUG cable. The cable looping box shall be fixed in the concrete pillar as directed by Engineer in-charge.</p> <p>These items requires the inspection of RITES prior to supply if total cost of the item is more than 5 Lakhs.</p>
5	<p>Supply, erection, testing and commissioning of Main control panel made up of not less than 1.6mm thick CRCA sheet, floor mounted, powder coated, with following switch gears with required accessories and fasteners number of 100A FP, 25KA, Adjustable OL & fixed SC ,MCCB -1 No, 50A, TP Contactor - 2 Nos, Analog Timer - 1 No with required wiring inside the panel.</p>

	These items requires the inspection of RITES prior to supply if total cost of the item is more than 5 Lakhs.																																																									
6	<p>Design, fabrication and supply, fixing, testing and commissioning of control panel unit for 24 V dc supply consisting of 3 No's of SMPS units enclosed in sheet steel enclosure with all connected safety accessories as per the specifications.</p> <p><u>Specification of each SMPS as Follows:</u></p> <ol style="list-style-type: none">1. Input voltage: - 180V to 260V.2. Output voltage: - 24V DC +/- 1 % regulation CV.3. Output current: - 10A constant.4. Protection: - short circuit protection, over voltage protection.5. Riple: < 200 mv.6. Enclosure: - 1.6 mm thick power coated sheet steel with all connected safety accessories, indications & controls.7. Suitable for MVP based 16 W LED cat walk/pit lights.8. Each panel shall consist of 3 nos. of SMPS unit suitable for pit lights/catwalk lights.9. Guarantee: - the guarantee period shall be 60 months from date of commission or 72 months from date of supply whichever is earlier. <p>These items requires the inspection of RITES prior to supply if total cost of the item is more than 5 Lakhs.</p>																																																									
7	<p>Design, fabrication, supply, of 16W LED light fitting, Aluminium die cast with protection of dust and water proof protection with necessary hardware material suitable to work on 24V DC three Directional type for pit lighting type as per specifications,</p> <p>For pitlight : 10+4+2W For Catlight : 4+8+4W</p> <p>Specification for 16W LED Three Directional PIT / CAT walk Light fixture:</p> <table><tr><th>SI No</th><th>Description</th><th>Specification</th></tr><tr><td>1</td><td>LED Make</td><td>Nichia / Osram /Samsung / Lumileds / Cree / Avago</td></tr><tr><td>2</td><td>Type LED</td><td>High Power SMD (Surface Mounting Device) LED</td></tr><tr><td>3</td><td>LED Arrangement</td><td>LED arranged in 3 blocks of total 16W into For PIT lights(10W+4W+2W), For CAT walk lights (4W+8W+4W)</td></tr><tr><td>4</td><td>Lumen output / Efficacy</td><td>Greater than or equal to 100 Lumens / Watt at maximum 350mA drive Current</td></tr><tr><td>5</td><td>LED Life</td><td>Greater than or qual to 50,000 Burning Hours</td></tr><tr><td>6</td><td>Depreciation</td><td>30% max after 50,000 Burning Hours</td></tr><tr><td>7</td><td>Input Voltage</td><td>24V DC</td></tr><tr><td>8</td><td>Operating Voltage</td><td>15- 30 V DC</td></tr><tr><td>9</td><td>System Wattage</td><td>16W plus or minus 1W</td></tr><tr><td>10</td><td>Control of distribution</td><td>Fully cut off</td></tr><tr><td>11</td><td>Driver Type</td><td>Constant Current driver with short circuit protection with inbuilt high & Low cut off</td></tr><tr><td>12</td><td>Efficiency of Driver Electronic</td><td>Greater than or equal to 85 %</td></tr><tr><td>13</td><td>Driver Components</td><td>Industrial grade only</td></tr><tr><td>14</td><td>Level Viewing angle</td><td>80 degree to 120 degree</td></tr><tr><td>15</td><td>Colour Temperature</td><td>5000-6500K</td></tr><tr><td>16</td><td>Colour Rendering Index</td><td>Greater than or equal to 70</td></tr><tr><td>17</td><td>PCB Type</td><td>Metal Clad</td></tr><tr><td>18</td><td>Construction of Housing</td><td>Pressure die-cast aluminium</td></tr></table>	SI No	Description	Specification	1	LED Make	Nichia / Osram /Samsung / Lumileds / Cree / Avago	2	Type LED	High Power SMD (Surface Mounting Device) LED	3	LED Arrangement	LED arranged in 3 blocks of total 16W into For PIT lights(10W+4W+2W), For CAT walk lights (4W+8W+4W)	4	Lumen output / Efficacy	Greater than or equal to 100 Lumens / Watt at maximum 350mA drive Current	5	LED Life	Greater than or qual to 50,000 Burning Hours	6	Depreciation	30% max after 50,000 Burning Hours	7	Input Voltage	24V DC	8	Operating Voltage	15- 30 V DC	9	System Wattage	16W plus or minus 1W	10	Control of distribution	Fully cut off	11	Driver Type	Constant Current driver with short circuit protection with inbuilt high & Low cut off	12	Efficiency of Driver Electronic	Greater than or equal to 85 %	13	Driver Components	Industrial grade only	14	Level Viewing angle	80 degree to 120 degree	15	Colour Temperature	5000-6500K	16	Colour Rendering Index	Greater than or equal to 70	17	PCB Type	Metal Clad	18	Construction of Housing	Pressure die-cast aluminium
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	19	Finishing	Anodized / Powder Coated
	20	Lamp Cover	High efficacy made from LEXAN poly carbonate material (not less than 1.5mm thick) of GE Plastic /Sabci make
	21	Secondary optics	Poly carbonate lens/ Silicon
	22	Ingress protection	Greater than or equal to 67
These items requires the inspection of RITES prior to supply if total cost of the item is more than 5 Lakhs.			
8	Erection, testing and commissioning of 16W LED light fitting, Aluminium die cast with protection of dust and water proof protection with necessary hardware material suitable to work on 24V DC three Directional type for pit lighting type as directed by the SSE in-Charge including required accessories and fasteners complete.		
9	<p>Supply, erection and testing of earthing arrangements to drawing No: CEE/CN/MS/16-2004 also necessary Continuity wire of 6 SWG, GI wire, average 5 meters length and connection from earth electrode to the main distribution board/post/ installation. The earth value should be well below the value as per relevant I.E. Rules and IS specifications and mentioned elsewhere in the schedule, when measured independently.</p> <p>Following Details should be stencilled in the Earth pot cover</p> <ul style="list-style-type: none"> • Owner : • Earth Pit No: • IR : • CR: • Date: 		
10	Supply and fixing of PVC wiring conduit,rigid,25mm dia heavy duty, 2mm wall thickness conforming to IS No:9537,part-III in open manner for electrical wiring in shelter / structure etc., including all accessories such as Junction boxes bend etc, . Clamping of PVC conduit shall be provided in the interval of 600 mm in the normal horizontal / vertical running length and 150 mm inwards / outwards of junction/bend/end point.		
11	Supply and wiring including termination by 2 No's of 1.5 sq.mm PVC insulated flexible copper cables confirming IS No. 694,1100V grade through the existing PVC pipe already laid.(1 No of multistrand cable for Positive +1 No of multistrand cable for Negative shall be taken as 1m for measurement purpose).		
12	Supply, erection, testing, commissioning and termination of IP 67 Polycarbonate junction Box as directed by the SSE in charge with 2 Way Connector with required accessories and fasteners complete.		
13	Breaking of all type of cement concrete flooring in platform / road as direct by engineer in-charge.		
14	Provision of cement concrete 1:3:6 (1 cement: 3 sand: 6 graded stone aggregate 20mm normal size) as directed by Engineer in-charge.		

SW-II: Revamping of Substation

Scope of work is for revamping of substation in Madurai it includes

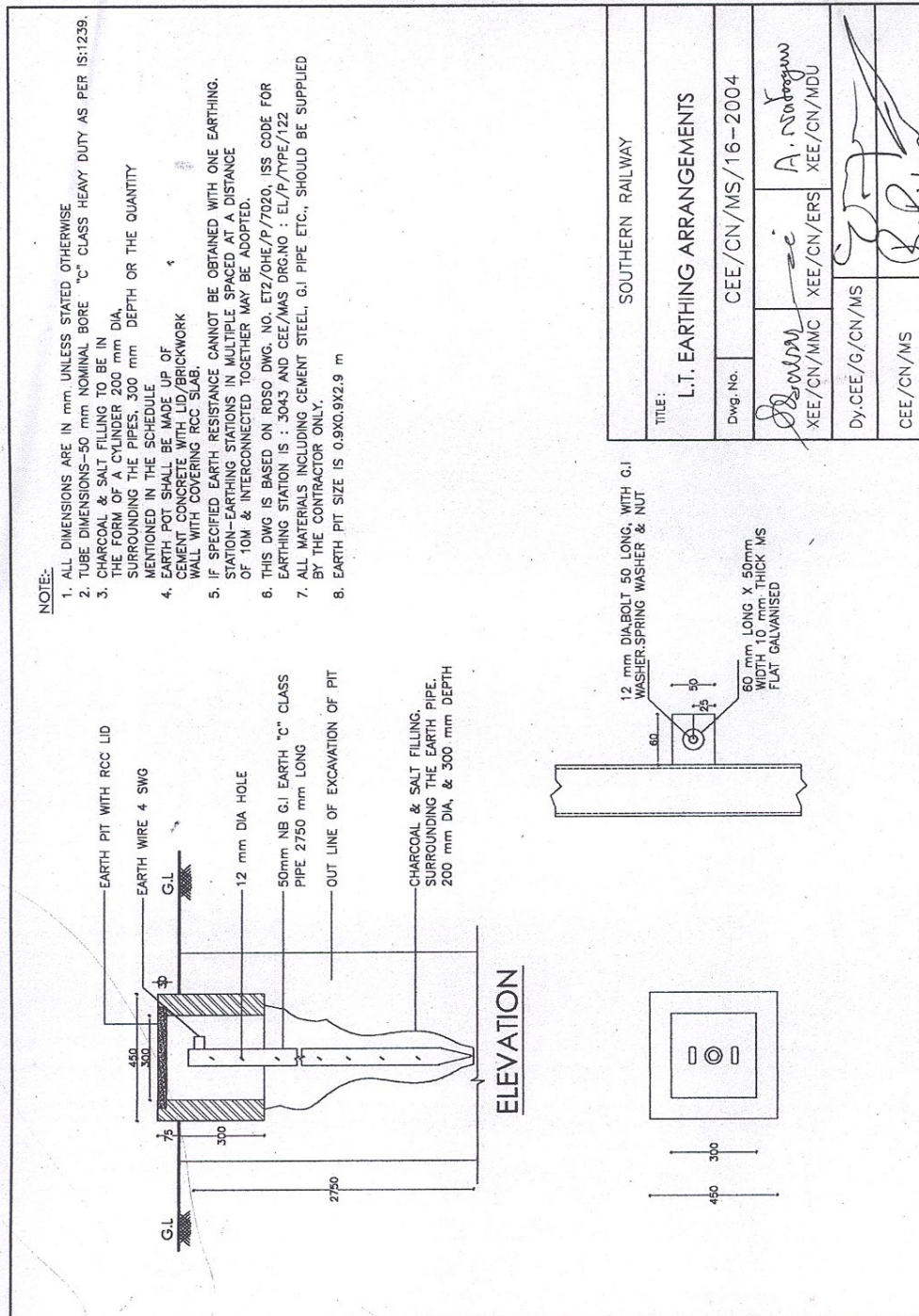
- Replacement of ACB in Existing Panel,
- Replacement of Existing Panels,
- Replacement of Power cables

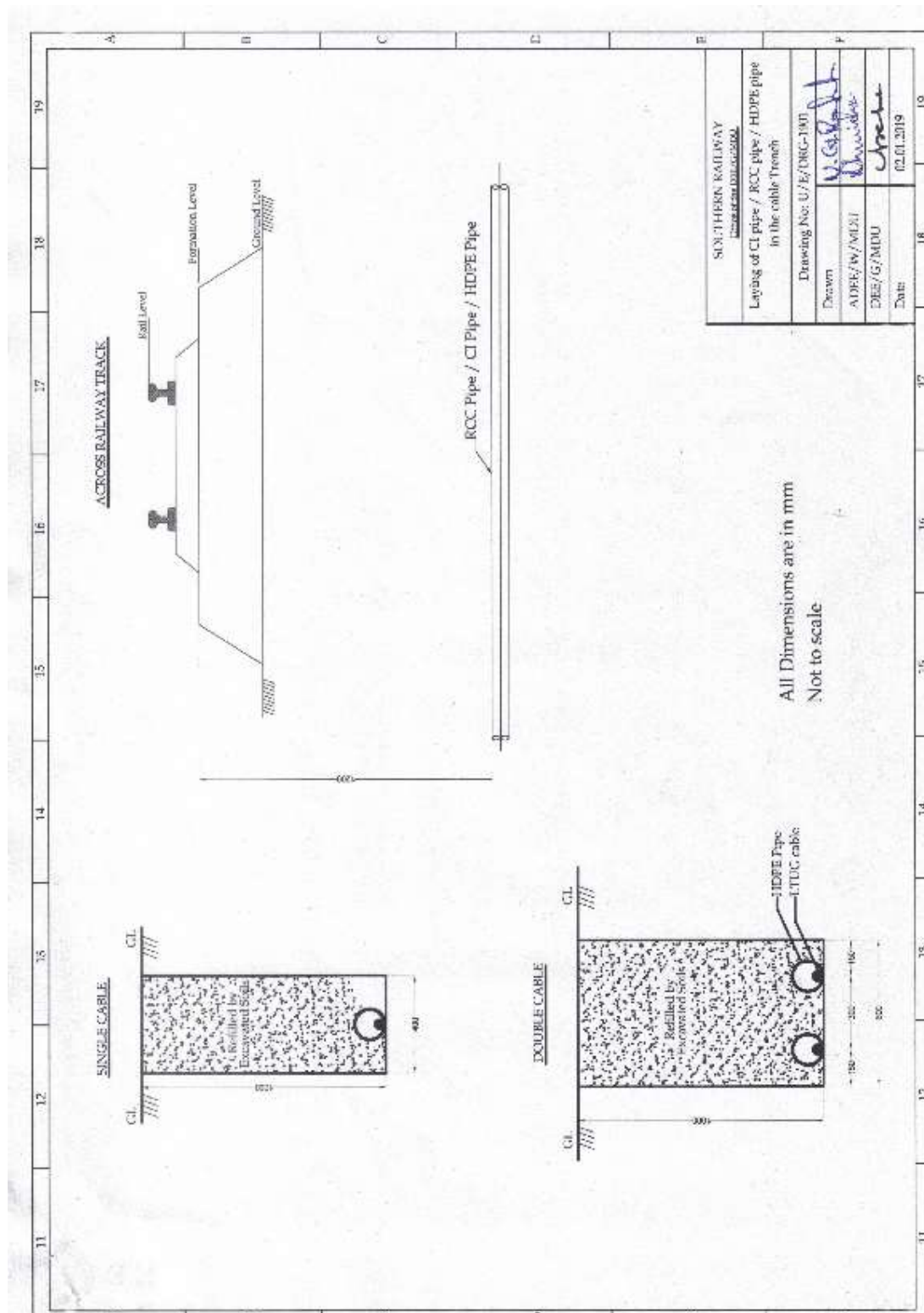
1	Supply and laying of 6 SWG GI wire for earth continuity, GI wire should be drawn in Already laid HDPE pipe along with LTUG cable including termination / Laid in the ground for earth Continuity between Electrical installation and Earth pit as directed by senior section Engineer In-charge.
2	The earth for cable trench shall be excavated in all kinds of soil and obstructions in the way of cable trench shall also be removed. The route will be marked by the Railway representative. The cable trench shall be as per drawing No: U/E/DRG-1901. The excavated earth should be filled back duly ramming for consolidation throughout the length of cable trench.
3	Laying of HDPE pipes (Only HDPE Pipe will be supplied by Railways) in the excavated cable trench as per drawing No: U/E/DRG-1901. All accessories if any, such as couple for connecting Pipe, required for laying are within the scope of contractor.

4	Drawing of LTUG cables in the existing HDPE pipe already laid in the excavated cable trench. Including termination with required accessories as directed by Engineer in-charge. (Only cable will be supplied by Railways).
5	<p>Supply , Erection , testing and commissioning of 1250A, 50KA, FP, ACB with electronic Relay in place of defective ACB in the existing panel. This includes modification of busbar arrangements to accommodate the new ACB in the Existing Panel if required, including Fixing Accessories and fasteners complete.</p> <p><u>Details of Existing ACB:</u></p> <ul style="list-style-type: none"> • Model Number : CN-CS-1250C • Make : L&T • Rated Current : 1250A • Voltage :415V • Frequency: 50/60Hz • Icu: 50kA • Ics:50kA • Icw:50kA for 1sec • Utilization Category : B <p>Note: Released ACB will be handed over to the SSE- Incharge.</p>
6	<p>Supply, erection, testing and commissioning of Main control panel made up of not less than 1.6mm thick CRCA sheet, floor mounted, powder coated, aluminium busbar having Current density not less than 1A/Sqmm with following switch gears with required accessories and fasteners in place of existing defective panel.</p> <ul style="list-style-type: none"> • Incomer – 800A, 36KA, FP, Thermal Magnetic, Adjustable OL & Adjustable SC, MCCB With Rotary Handle -1 No • Changer over Switch – 800A, FP, with Rotary handle – 1 No • Feeder - 400A, 25KA, FP, Thermal Magnetic, Adjustable OL & adjustable SC, MCCB with Rotary Handle -2 No's • Feeder - 250A, 25KA, FP, Thermal Magnetic, Adjustable OL & Adjustable SC, MCCB with Rotary Handle -11 No's • Feeder - 125A, 25KA, FP, Thermal Magnetic, , Adjustable OL & fixed SC MCCB with Rotary Handle -4 No's • Feeder - 63A, 25KA, FP, Thermal Magnetic, , Adjustable OL & fixed SC MCCB with Rotary Handle -6 No's • MFM meter with 3 Nos CT – 1 No • RYB indication Lamps – 1 Set • Size of Neutral busbar shall be same size and material of phase busbar • Size of Main earth busbar shall be 50X12mm • All hinged doors should be earthed. • Ingress protection of the panel not below 42. <p>This work includes dismantling of existing defective panel including cables, and erection, testing and commissioning of new panel with termination of dismantled cables including loading, transportation, unloading, positioning required accessories for completion of work and fasteners etc. complete.</p> <p>Note: Released panel will be handed over to the SSE in-charge</p>
7	<p>Supply, erection, testing and commissioning of Main control panel made up of not less than 1.6mm thick CRCA sheet, floor mounted, powder coated, aluminium busbar having current density not less than 1A/Sqmm with following switch gears with required accessories and fasteners in place of existing defective panel.</p> <ul style="list-style-type: none"> • Incomer – 800A, 36KA, FP, Thermal Magnetic, Adjustable OL & Adjustable SC MCCB With Rotary Handle -1 No • Feeder - 400A, 36KA, FP, Thermal Magnetic, Adjustable OL & Adjustable SC MCCB with Rotary Handle -1 No • Feeder - 125A, 25KA, FP, Thermal Magnetic, Adjustable OL & fixed SC MCCB with Rotary Handle -3 No's • Feeder - 63A, 25KA, FP, Thermal Magnetic, Adjustable OL & fixed SC MCCB with

	<p>Rotary Handle -2 No's</p> <ul style="list-style-type: none"> • MFM meter with 3 Nos CT – 1 No • RYB indication Lamps – 1 Set • Size of Neutral busbar shall be same size and material of phase busbar • Size of Main earth busbar shall be 50X12mm • All hinged doors should be earthed. • Ingress protection of the panel not below 42. <p>This work includes dismantling of existing defective panel including cables, and erection, testing and commissioning of new panel with termination of dismantled cables including loading, transportation, unloading, positioning required accessories for completion of work and fasteners etc. complete.</p> <p>Note: Released panel will be handed over to the SSE in-charge</p>
8	<p>Supply, erection, testing and commissioning of Sub control panel made up of not less than 1.6mm thick CRCA sheet, Wall mounted, powder coated, aluminium busbar (if required) having current density not less than 1A/Sqmm with following switch gears with required accessories and fasteners in place of existing defective panel.</p> <ul style="list-style-type: none"> • 63A, Adjustable OL & fixed SC, MCCB, FP, 25KA – 1 No • 6-40 A, TP, MCB – 12Nos • Ingress protection of the panel not below 42. <p>This work includes dismantling of existing defective panel including cables, and erection, testing and commissioning of new panel with termination of dismantled cables including loading, transportation, unloading, positioning required accessories for completion of work and fasteners etc. complete.</p> <p>Note: Released panel will be handed over to the SSE in-charge</p>
9	<p>Supply, erection and testing of earthing arrangements to drawing No: CEE/CN/MS/16-2004 also necessary Continuity wire of 6 SWG, GI wire, average 5 meters length and connection from earth electrode to the main distribution board/post/ installation. The earth value should be well below the value as per relevant I.E. Rules and IS specifications and mentioned elsewhere in the schedule, when measured independently.</p> <p>Following Details should be stencilled in the Earth pot cover</p> <ul style="list-style-type: none"> • Owner : • Earth Pit No: • IR : • CR: • Date:

7.0 DRAWINGS:





LIST OF RAILWAY SUPPLIED MATERIAL

Schedule	Item No.	Description of item to be supplied by the Railway
SW-I	3	LTUG Cable Up to and including 50 Sqmm 4core
SW-II	5	HDPE Pipe90mm dia
SW-II	6	LTUG Cable Up to and including 185 Sqmm 4core

SOUTHERN RAILWAY**SITE ORDER BOOK**

Name of Work:

AGT. No. / Date:

Name of the contractor:

Starting date of construction:

Sl. No.	Site Order by Inspecting officials	Signature of the official	Noting Signature		Compliance details	Remarks	Compliance Signature	
			Contractor	SSE			Contractor	SSE

Notes:

1. For every work, separate site order book should be maintained.
2. Site order should be recorded specifically and chronologically.
3. Wherever required site orders may be supported by sketches.

Special Note: Any objection of the contractor to the site order should be brought to the notice to the senior section Engineer / Electrical / works / Madurai or his higher officials immediately by the contractor separately

SOUTHERN RAILWAY**HINDRANCE REGISTER**

Name of Work:

AGT. No. / Date:

Name of the contractor:

Starting date of construction:

Sl. No.	Nature of hindrance	Date of Occurrence	Date of removal	Period of hindrance	Over lapping period	Total period of hindrance	Extension recommended	Extension approved	Clause under GCC	Signature	
										Contractor	SSE

Notes: Separate register to be maintained for each work.

SOUTHERN RAILWAY

MATERIAL TRANSACTION REGISTER

Name of Work:

AGT. No. / Date:

Name of the contractor:

Starting date of construction :

Location of Stores :

Date of Receipt	Name /Nature of work	Opening Balance	Item Description	Details of Receipt				Total received (with unit)	Total certificate	Signature		Details of issues			Closing Balance	Remarks reg. performance	Signature	
				Voucher No.	Brand	Quantity	Expiry date			Contract or	SSE	Date	Quantity	Total issued			Contract or	SSE

Notes: Separate register to be maintained for each work

SOUTHERN RAILWAY**DAILY PROGRESS & LABOUR REGISTER**

Name of Work:

AGT. No. / Date:

Starting date of construction :

Name of the contractor:

Date	Status of work (in the beginning)	Progress (on date)	Contractor labour (available at site)	Remarks	Signature	
					Contractor	Rly Representative

Note: Separate register to be maintained for each work

TENDERER'S CREDENTIALS REGARDING ELIGIBILITY CRITERIA

(Give details of similar works executed so far in the Proforma given below)

PROFORMA FOR FURNISHING EXPERIENCE CERTIFICATE

Sl.No	Description	Details
1	Name of work	
2	Executing department/office	
3	Letter of Acceptance (LOA) Number with Date of award of work	
4	Agreement number with Date	
5	Agreement value of the work	
6	Name and address of Contractor	
7	Original completion period as per LOA/Agreement	
8	Number of extensions granted	
9	Whether completed/ongoing work. If completed work, give date of actual completion	
10	Final completion value of the contract (for completed works)/ Payment received so far(for ongoing contracts)	
11	Whether any penalty is imposed. (YES/NO) If Yes, Details of penalty and total penalty amount to be furnished.	
12	General remarks about performance.	

Signature and Seal of the Authority
issuing Certificate.

Note: If the tenderer has completed more than one similar work, give the details of each work separately in the above format.

**MANDATE TO BE SUBMITTED BY CONTRACTOR FOR UPLOADING OF
INFORMATION
REGARDING BILLS AND FOR PAYMENT THROUGH EFT/RTGS**

ELECTRONIC FUND TRANSFER MANDATE FORM

1. CUSTOMER DETAILS:

- a. Customer Name:
- b. Customer Address:
- c. Email ID:
- d. Telephone Number:

2. ACCOUNT DETAILS:

- a. Account Number:
- b. Type of Account:
- c. Name of the Bank:
- d. Name of the Branch Address:
- e. Bank Telephone number:
- f. IFSC Code of the Branch:
- g. MICR Code of the Branch:

I hereby declare that the particulars given are correct and complete.

Date:

Seal

Customer signature

Certificate that the particulars furnished above are correct as per our records.

Date

Seal:
Bank

Signature of the Authorised official of the

(This certificate is to be given by attorney/authorized signatory/each member of Partnership firm/Joint Venture (JV) / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc .)

I/We.....(Name), attorney/authorized signatory of the (constituent firm/constituent partner) and member/partner of the(tendering firm) hereby solemnly affirm and state as under:

1. I/we certify that..... (Constituent firm/constituent partner) is/are not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of submission of bids, either in individual capacity or as a HUF/ member of the partnership firm/LLP/JV/Society/Trust.
2. I/We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India and certify that I am/We are not from such a country or, if from such a country, have been registered with the competent Authority. I/We hereby certify that I/we fulfil all the requirements in this regard and am/are eligible to be considered (evidence of valid registration by the competent authority is enclosed).

SEAL AND SIGNATURE
OF THE CONSTITUENT FIRM/CONSTITUENT PARTNER

Place:

Dated:

Reference -Para 10.2 & 17.15.2 of Tender Form (Second Sheet) of Annexure I of ITT

Each Bidder or each member of a JV must fill in this form separately:

NAME OF BIDDER/JV PARTNER:

Annual Contractual Turnover Data for the Previous 3/4 Years (Contractual Payment only)			
Year	Amount Currency	Exchange Rate	Indian National Rupees Equivalent
Average Annual Contractual Turnover for last 3 years			

1. The average annual contractual turnover shall be calculated as an average of "total contractual payments" in the previous three financial years. 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.
2. The information supplied shall be substantiated by data in the audited balance sheets and profit and loss accounts for the relevant years in respect of the bidder or all members constituting the bidder.
3. Contents of this form should be certified by a Chartered Accountant duly supported by Audited Balance Sheet duly certified by the Chartered Accountant.

SEAL AND SIGNATURE OF THE BIDDER

Certified that all figures and facts submitted in this form have been furnished after full consideration of all observations/notes in Auditor's reports. _____

(Signature of Chartered Accountant)

Name of CA: _____

Registration No: _____

(Seal)

"End of Tender Document"