

**NOTICE INVITING e-TENDERS**

The Executive Engineer (E), BBSR, Central Public Works Department, Plot No. 188/623, 624, Pokhariput, Bhubaneswar (Telephone No. 0674-2352973/983) invites on behalf of President of India online percentage rate e-tender in **Single Bid** system from "**CPWD Building & Roads Category Contractors**" for the following work(s):

NIT NO. **55/EE-E/BBSR/CPWD/2026-27**

Name of Work: **Repairing/Replacement of damaged wiring and fittings of R&S Home building for Ground, First and Second Floor and Replacing Fire Alarm System in R&D Building etc. at ILS Campus-1, Bhubaneswar.**

Estimated Cost: **Rs.61,84,002/-**

Earnest Money: **Rs.1,23,680/-**

E-Tender Processing Fee: N/A

Period of Completion: **06 Months**

Last time and date of submission of bid: **13.10.2026**, 15:00 Hrs

The tender forms and other details can be obtained from the website [www.etender.cpwd.gov.in](http://www.etender.cpwd.gov.in) or [www.cpwd.gov.in](http://www.cpwd.gov.in). All corrigendum / addendum shall only be available on this website and shall not be published anywhere else.

**AE-(E) (P)**  
**BBSR**

**AAO**  
**BBSR**

**EE (E)**  
**BBSR**

## **NOTICE INVITING TENDER**

**NIT No.: 55/EE-E/BBSR/CPWD/2026-27**

**Name of work : Repairing/Replacement of damaged wiring and fittings of R&S Home building for Ground, First and Second Floor and Replacing Fire Alarm System in R&D Building etc. at ILS Campus-1, Bhubaneswar.**

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**Certified that this N.I.T. amounting to Rs.61,84,002/- contains 36 pages only in chronological order**

**AE-(E) (P)**  
**BBSR**

**AAO**  
**BBSR**

**EE (E)**  
**BBSR**

## **INFORMATION & INSTRUCTIONS FOR BIDDERS FOR e-TENDERING**

The Executive Engineer (E), BBSR, CPWD, Plot No. 188/623-624, Pokhariput, Bhubaneswar - 751020 (Telephone No. 0674-2352973/983, email id: [executiveengineerelectbbsr@gmail.com](mailto:executiveengineerelectbbsr@gmail.com)) on behalf of President of India invites online percentage rate bids on **Single Bid** system from **"CPWD Building & Roads Category Contractors"** for the following work(s):

|                                                                                                                                                                     |                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NIT No.</b>                                                                                                                                                      | <b>55/EE-E/BBSR/CPWD/2026-27</b>                                                                                                                                                                               |
| <b>Name of Work &amp; location</b>                                                                                                                                  | <b>Repairing/Replacement of damaged wiring and fittings of R&amp;S Home building for Ground, First and Second Floor and Replacing Fire Alarm System in R&amp;D Building etc. at ILS Campus-1, Bhubaneswar.</b> |
| <b>Estimated cost put to tender</b>                                                                                                                                 | <b>Rs.61,84,002/-</b>                                                                                                                                                                                          |
| <b>Earnest Money</b>                                                                                                                                                | <b>Rs.1,23,680/-</b>                                                                                                                                                                                           |
| <b>Period of Completion</b>                                                                                                                                         | <b>06 Months</b>                                                                                                                                                                                               |
| <b>Last date &amp; time of submission of Bid, original EMD copy of receipt for deposition of original EMD, and other document as specified in the press notice.</b> | <b>13.10.2026, 15:00Hrs</b>                                                                                                                                                                                    |
| <b>Time and date of opening of Bid</b>                                                                                                                              | <b>13.10.2026, 15:30Hrs</b>                                                                                                                                                                                    |

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and instructions for bidders posted on website shall form part of bid document.
3. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website [www.etender.cpwd.gov.in](http://www.etender.cpwd.gov.in) or [www.cpwd.gov.in](http://www.cpwd.gov.in) free of cost.
4. But the bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as Demand Draft or Pay Order or Banker's Cheque or Deposit at call receipt or fixed deposit receipts and Bank Guarantee of any Scheduled Bank towards EMD in favour of **Executive Engineer (E), BCED, CPWD, Bhubaneswar**, receipt for deposition of original EMD to division office of any Executive Engineer (Including NIT issuing EE/AE), CPWD and other documents as specified.
5. Those contractor not registered on the website mentioned above, are required to get registered beforehand. If needed they can be imported training on online bidding process as per details available on the website.
6. The intending bidder must have valid class-III digital signature to submit the bid.

7. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
8. SC/ST contractor enlisted under Class-V category are exempted from processing fee payable to ITI Limited.
9. Contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted.
10. The bidder shall be required to execute the work on top priority and to arrange the resources of men and materials accordingly as directed by Engineer-in-Charge
11. If the cell is left blank and no percentage rate (above or below) is quoted by the bidder, rate shall be treated as "0" (ZERO).
12. The tenderer should also read the General Conditions of Contract for **CPWD Works 2023 (Maintenance work)** amended up to date (available on CPWD above websites), which is available as Govt. of India Publications.
13. Tenders with any condition including that of conditional rebates in the tender document shall be rejected forthwith.
14. If any information furnished by the applicant is found incorrect at a later stage, he shall be liable to be debarred from tendering/ taking up of works in CPWD. The Department reserves the right to verify the particulars furnished by the applicant independently.
15. If the bidder has not possessed valid electrical license of appropriate voltage to execute electrical work, then in such a case the bidder shall scan and upload following under taking along with other bid documents.

"If work is awarded to me, I/we shall either obtain valid electrical license at the time of execution of electrical work or associates with contractor with **Valid Electrical License** of appropriate voltage issued by competent authority".

**List of Documents to be filled in by the bidders in various forms to be scanned and uploaded in JPG/PDF format within the period of bid submission**

|   |                                                                                                                                             |
|---|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Enlistment Order of the Contractor                                                                                                          |
| 2 | Certificate of Registration for GST                                                                                                         |
| 3 | PAN No. (Permanent Account Number)                                                                                                          |
| 4 | Earnest Money Deposit Receipt for B along with scan copy of Original EMD                                                                    |
| 5 | Confirmation for Submission of Financial Bid Form C                                                                                         |
| 6 | An Undertaking Form D (Undertaking regarding not debarred by Govt./ Autonomous body etc)                                                    |
| 7 | Valid Electrical License of appropriate voltage to execute electrical work as given in schedule of work or Undertaking as per Para-15 above |
| 8 | ERP Training Certificate                                                                                                                    |

Assistant Engineer (E) (P)  
BBSR, CPWD, Bhubaneswar

Executive Engineer (E)  
BBSR, CPWD, Bhubaneswar

## CPWD-6 for E-Tendering

Percentage rate bids are invited on behalf of President of India from approved and eligible contractors of CPWD for the work of **Repairing/Replacement of damaged wiring and fittings of R&S Home building for Ground, First and Second Floor and Replacing Fire Alarm System in R&D Building etc. at ILS Campus-1, Bhubaneswar.**

The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

1. The work is estimated to cost **Rs.61,84,002/-**. The estimate however is given merely as a rough guide.
2. Agreement shall be drawn with the successful bidder on prescribed Form No. CPWD 7/8 (Or other Standard Form as mentioned) which is available as a Govt. of India Publication and also available on website [www.cpwd.gov.in](http://www.cpwd.gov.in). Bidders shall quote their rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out of the work will be **06 Months** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.  
The site for the work is available.
4. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website [www.etender.cpwd.gov.in](http://www.etender.cpwd.gov.in) or [www.cpwd.gov.in](http://www.cpwd.gov.in) free of cost.
5. After submission of the bid the contractor can re-submit revised.
6. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.

When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.

7. Earnest money in the form of Treasury Challan or Demand Draft or Pay Order or Banker's Cheque or Deposit at Call Receipt of Fixed Deposit Receipt **(Drawn in favour of Executive Engineer (E), BCED, CPWD, Bhubaneswar)** Shall be scanned and uploaded to the e-tendering website within the period of bid-submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE / AE) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by the tender inviting EE in the NIT.

This receipt shall also be uploaded to the e-tendering website by the intending bidder upto the specified bid submission date and time.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money of Rs. 20 Lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any scheduled bank having validity for six months or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

Online bid documents submitted by intending bidders shall be opened only of those bidders, **whose original EMD deposited with any division of CPWD and other documents scanned and uploaded are found in order.**

The bid submitted shall be opened at **03:30 PM on 13.10.2026**

8. The bid submitted shall become invalid
  - i. The bidder is found ineligible.

- ii. The bidder does not deposit original EMD with division office of any Executive Engineer, CPWD.
  - iii. The bidder does not upload GST Registration certificate.
  - iv. The bidder does not upload Valid Electrical License of appropriate voltage to execute electrical work. However the contractor shall be allowed to participate in tender with an undertaking that "They will either obtain valid electrical license of appropriate voltage at the time of execution of electrical work or associates contractor having valid electrical license of appropriate voltage of eligible class/similar work experience"
  - v. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.
  - vi. If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above / below on the total amount of the tender in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
9. **The contractor whose bid is accepted, will be required to furnish (a) Performance Guarantee of 5% (Five Percent) of the Tendered value or Estimated Cost put to Tender (ECPT) (whichever is higher) (b) Where the tendered amount is less than eighty percent (80%) of the ECPT, the PG, in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tender amount within the period specified in schedule F (GCC 2023 maintenance work amended vide No-DG/CON/Maintenance 2023/18 Dt.27.02.2026).** This guarantee shall be in the form of cash (in case guarantee amount is less than s 10,000/-) or Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank (in case guarantee amount is less than s 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in schedule 'F' including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The Earnest Money deposited along with tender shall be returned after receiving the aforesaid performance guarantee. The contractor whose bid is accepted will be required to furnish either copy of applicable licenses/registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board and Programme Chart (Time and Progress) within **07 Days** from the date of issue of letter of acceptance as specified in Schedule F.
10. Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (So far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.
  11. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
  12. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
  13. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
  14. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture / Nursery Category) responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of

Superintending Engineer and Junior Engineer (Both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazette officer in the Central Public Works Department or in the Ministry of Urban Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.

15. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a Contractor for a period of One year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
16. The bid for the work shall remain open for acceptance for a period of **Thirty (30) days** from the date of opening of bids in case of single bid system: if any bidder withdraws his bid before the said period or issued of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the rebidding process of the work.
17. The notice inviting bid shall form a part of the contract document. The successful bidder / contractor, on acceptance of his bid by the accepting authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of: -
  - a. The notice inviting bid, all the documents including additional conditions, specifications, and drawings, if any, forming part of the bid as uploaded at the time of incitation of bid and the rated quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
  - b. Standard C.P.W.D Form 7/8 or other Standard C.P.W.D Form as applicable.
18. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of Executive Engineer, then the bid submitted shall become invalid and the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the tenderer shall not be allowed to participate in the retendering process of the work.
19. The Contractor/Agency shall not execute any Extra/Substitute and deviated item as specified in BOQ without prior approval of Engineer-in-charge.
20. Water and electricity to be used in the work will be in the scope of agency. No extra payment will be done for it.
21. Contractor shall submit the drawing before execution of work for all E&M services to the respective Engineer in charge for approval without any cost/claims.
22. Small civil work e.g core cutting or making any hole or after installation of items making it good again will be in the scope of agency without any cost/claims.
23. The bidder must bid the price for equipment including the price of foundation if required without any cost/claims.
24. The intending bidders are required to update their profile in CPWD e-tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile / uploading tender can be resolved through the concerned Executive Engineer (E) or ERP help line no. 18001803286 or email ID: [cpwd.support@techmahindra.com](mailto:cpwd.support@techmahindra.com). The e-tendering bidders are also advised not to wait to raise any issue till the last date of submission of bid in their own interest.

Assistant Engineer (E) (P)  
BBSR, CPWD, Bhubaneswar

Executive Engineer (E)  
BBSR, CPWD, Bhubaneswar

**Form "B"****EMD Receipt format**

Receipt of deposition of original EMD

(Receipt No...../date.....)

Name of work- **Repairing/Replacement of damaged wiring and fittings of R&S Home building for Ground, First and Second Floor and Replacing Fire Alarm System in R&D Building etc. at ILS Campus-1, Bhubaneswar.**

NIT No: **55/EE-E/BBSR/CPWD/2026-27**

1. Estimated Cost: **Rs.61,84,002/-**
2. Amount of Earnest Money Deposit: **Rs.1,23,680/-**
3. Last date of submission of bid: **13.10.2026 15:00 PM**

(\*To be filled by NIT approving authority/EE at the time of issue of NIT and uploaded along with NIT)

Name of Contractor:.....#

1. Form of EMD:.....#
2. Amount of Earnest Money Deposit:.....#
3. Date of submission of EMD:.....#

Signature, Name and Designation of EMD

Receiving officer (EE/AE(P)/AE/AAO)

Along with office stamp

(# to be filled by EMD receiving EE)

**Form – "C"****CONFIRMATION FOR SUBMISSION OF FINANCIAL BID**

To  
The Executive Engineer (E)  
BBSR, CPWD, Bhubaneswar

Sub:-

Sir,

I/We ..... the Bidder have uploaded financial bid from our firm for above work.

Yours faithfully

Signature

Full Name of the Firm/Bidder:.....

Designation:.....

Address:.....

Tele No.s (O)..... (R).....

E mail:.....

Fax No:.....

**Form – “D”**

**UNDERTAKING**

I/we declare that, I/we have not been debarred/restrained/ black listed by any Central Govt. / State Govt. Agency/ Autonomous body of the Central or State Govt. / PSU etc.

Signature of the Bidder

Address

## AFFIDAVIT OF MEMORANDUM OF UNDERSTANDING (MOU)

(to be submitted for each and every E&amp;M component)

1. M/s. (Name of the firm with full address)
2. Enlistment Status  
Valid Upto:  
(Henceforth called the main Contractor)
3. M/s. (Name of the firm with full address)
4. Enlistment Status  
Valid Upto:  
(Henceforth called Associated Contractor)

For the execution of E &amp; M Component Works –

We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act (amended up to date) and the department (CPWD) can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits. In case of any dispute, either of us will go for mediation by the Engineer In charge. Any of us may appeal against the mediation to the Chief Engineer, CPWD, Bhubaneswar. His decisions shall be final and binding on both of us. We have agreed as under:

1. The Associated Contractor will execute all E & M works in the wholesome manner as per terms and conditions of the agreement.
2. The Associated Contractor shall be liable for disciplinary action if he fails to discharge the action(s) and other legal action as per agreement.
3. All the machinery and equipments, tools and tackles required for execution of the E & M works, as per agreement, shall be the responsibility of the Associated Contractor.
4. The site staff required for the E & M work shall be arranged by the Associated Contractor as per terms and conditions of the agreement.
5. Site order book maintained for the said work shall be signed by the main contractor as well as by the Engineer of the Associated Contractor and by Associated Contractor himself.
6. All the correspondence regarding execution of the E & M work shall be done by the department with the Associated Contractor with a copy to the main contractor. In case of non-compliance of the provisions of agreement, the main contractor, as well as the associated contractor shall be responsible. The action under clauses 2 and 3 shall be initiated and taken against the main contractor.

|                                        |                                        |
|----------------------------------------|----------------------------------------|
| SIGNATURE OF MAIN CONTRACTOR           | SIGNATURE OF ASSOCIATED CONTRACTOR     |
| Date:                                  | Date:                                  |
| Place:                                 | Place:                                 |
| 1. Witness with address                | 2. Witness with address                |
| (From major component contractor side) | (From minor component contractor side) |

CPWD-7

CPWD

**GOVERNMENT OF INDIA**  
**CENTRAL PUBLIC WORKS DEPARTMENT**

**Percentage Rate Tender and contract for works**

**Tender for the work of: Repairing/Replacement of damaged wiring and fittings of R&S Home building for Ground, First and Second Floor and Replacing Fire Alarm System in R&D Building etc. at ILS Campus-1, Bhubaneswar.**

To be uploaded by 15:00 hours on **13.10.2026** at [www.etender.cpwd.gov.in](http://www.etender.cpwd.gov.in)

To be opened in presence of tenderers who may be present at 15:30 hours on **13.10.2026** in the office of **Executive Engineer (E), BBSR, CPWD, Bhubaneswar**

Issued to .....\*

Signature of officer issuing the documents .....\*

Designation .....\*

Date of Issue .....\*

**TENDER**

I/We have read and examined the notice inviting tender, schedule, A,B,C,D & E Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, of 2023 with up to date amendments clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract of 2023 with up to date amendments and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for **Thirty (30) Days** from the date of opening of bids in case of single bid system and not to make any modification in its terms and conditions

**(a) Performance Guarantee of 5% (Five Percent) of the Tendered value or Estimated Cost put to Tender(ECPT) (whichever is higher) (b) Where the tendered amount is less than eighty percent (80%) of the ECPT , the PG , in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tender amount within the period specified in schedule F(GCC 2023 maintenance work amended vide No-DG/CON/Maintenance 2023/18 Dt.27.02.2026)** is here by forwarded in cash / receipt treasury challan / deposit at call receipt of a scheduled bank / fixed deposit receipt of scheduled bank / demand draft of a scheduled bank / bank guarantee issued by a scheduled bank as performance guarantee. If I/We, fail to furnish the prescribed performance guarantee with in prescribed period. I/We agree that the said President of India or his successors, in offices hall without prejudice to any other right or remedy, be at liberty to forfeit the said performance guarantee absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, beat liberty to forfeit the said performance guarantee absolutely. The said performance guarantee shall be guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause12.2 and 12.3 of the tender form. Further, I/We agree that in case off or feature of Performance Guarantee as aforesaid. I/We shall be debarred for participation in there-tendering process of the work.

**CPWD-7****CPWD**

I/We undertake and confirm that eligible similar work(s) has / have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for tendering in CPWD in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

**Dated:** .....\*\*.....

**Signature of Contractor \*\***

**Witness: \*\***

**Address: \*\***

**Postal Address \*\***

**Occupation: \*\***

### **ACCEPTANCE**

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for an on behalf of the President of India for a sum of s.....\*..... (Rupee.....\*.....).

The letters referred to below shall form part of this contract agreement:-

- (a) \*
- (b) \*
- (c) \*

**For & on behalf of President of India**

**Signature.....\*.....**

**Dated: .....\*.....**

**Designation .....**

**\* Blanks to be filled by EE/BBSR**

**\*\* To be filled by Contractor**

**PROFORMA OF SCHEDULES****CPWD****SCHEDULE 'A'**

Schedule of quantities

Page No-

|                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SCHEDULE 'D'</b><br>Extra schedule for specific requirements/<br>document for the work, if any.                                                      | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>SCHEDULE 'E'</b><br>Reference to General Conditions of<br>Contract                                                                                   | <b>General Conditions of Contract-2023 Maintenance Work</b><br>modified and amended upto the last date of received of tender.                                                                                                                                                                                                                                                                                                                                                                                               |
| Name of Work                                                                                                                                            | <b>Repairing/Replacement of damaged wiring and fittings<br/>of R&amp;S Home building for Ground, First and Second<br/>Floor and Replacing Fire Alarm System in R&amp;D Building<br/>etc. at ILS Campus-1, Bhubaneswar.</b>                                                                                                                                                                                                                                                                                                  |
| Estimated cost of work                                                                                                                                  | <b>Rs.61,84,002/-</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Earnest money                                                                                                                                           | <b>Rs.1,23,680/- (to be returned after receiving Performance<br/>Guarantee) (EMD shall be made / issued only from the<br/>account of the bidder / tenderer submitting the bid/tender.<br/>EMD made/ issued from the account other than that of the<br/>bidder/ tenderer submitting the bid shall not be accepted.<br/>(CPWD Works Manual-2024 amended vide No-DG/SOP<br/>2024/22 Dt.23.03.2026).</b>                                                                                                                        |
| Performance guarantee                                                                                                                                   | <b>(a) Performance Guarantee of 5% (Five Percent) of the<br/>Tendered value or Estimated Cost put to Tender (ECPT)<br/>(whichever is higher) (b) Where the tendered amount is less<br/>than eighty percent (80%) of the ECPT, the PG, in addition to<br/>the requirement under (a) above, shall be increased by an<br/>amount equal to the difference between eighty percent<br/>(80%) of the ECPT and the tender amount. (GCC 2023<br/>maintenance work amended vide No-DG/CON/Maintenance<br/>2023/18 Dt.27.02.2026).</b> |
| Security deposit                                                                                                                                        | <b>2.5% of Tendered Value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>SCHEDULE 'F'</b>                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| GENERAL RULES & DIRECTIONS:<br>Officer inviting tender                                                                                                  | Executive Engineer (E), CPWD, Bhubaneswar (Odisha) or successor<br>thereof.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Maximum percentage for quantity of<br>items of work to be executed beyond<br>which rates are to be determined in<br>accordance with Clauses 12.2 & 12.3 | See below under Clause 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Definitions:</b>                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Engineer-in-Charge                                                                                                                                      | Executive Engineer (E), CPWD, Bhubaneswar (Odisha) or successor<br>thereof.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Accepting Authority                                                                                                                                     | Chief Engineer, CPWD, Bhubaneswar or successor thereof.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Percentage on cost of materials and<br>labour to cover all overheads and<br>profits:                                                                    | 15%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standard Schedule of Rates                                                                                                                              | 1. DSR-2025 (E&M) plus cost index with correction slip(s) issued<br>upto the last date of submission of Bid.<br>2. Market Rates for Non DSR Items.                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Department</b>                                                                                                                                       | <b>Central Public Works Department.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

|                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                      |                                                                                                                           |                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Standard CPWD Contract Form                                                                                                                                                                                                                                                                            |                                                                                                                                                                      | <b>General Conditions of Contract-2023 Maintenance Work, CPWD Form 7 as amended up to last date of submission of bid.</b> |                                                                                     |
| <b>Clause 1</b>                                                                                                                                                                                                                                                                                        |                                                                                                                                                                      |                                                                                                                           |                                                                                     |
| (i)Time allowed for submission of Performance Guarantee, Programme chart (time and progress) and applicable labour licenses, registration with EPFO, ESIC, action Plan for Green Rating Certification, BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance. |                                                                                                                                                                      | <b>07 days</b>                                                                                                            |                                                                                     |
| (ii) Maximum allowable extension with late fee at 0.1% per day of performance guarantee amount beyond the period provided in (i) above                                                                                                                                                                 |                                                                                                                                                                      | <b>03 days</b><br>with late fee @ 0.1% per day of the PG amount (Non-refundable)                                          |                                                                                     |
| <b>Clause 2</b>                                                                                                                                                                                                                                                                                        |                                                                                                                                                                      |                                                                                                                           |                                                                                     |
| Authority for fixing compensation under clause 2                                                                                                                                                                                                                                                       |                                                                                                                                                                      | Chief Engineer, CPWD, Bhubaneswar or successor thereof.                                                                   |                                                                                     |
| <b>Clause 2A</b>                                                                                                                                                                                                                                                                                       |                                                                                                                                                                      |                                                                                                                           |                                                                                     |
| Whether Clause 2A shall be applicable                                                                                                                                                                                                                                                                  |                                                                                                                                                                      | <b>Not Applicable</b>                                                                                                     |                                                                                     |
| <b>Clause 5</b>                                                                                                                                                                                                                                                                                        |                                                                                                                                                                      |                                                                                                                           |                                                                                     |
| Number of days from the date of issue of letter of acceptance for reckoning date of start                                                                                                                                                                                                              |                                                                                                                                                                      | 10 days                                                                                                                   |                                                                                     |
| <b>Table of Milestones</b>                                                                                                                                                                                                                                                                             |                                                                                                                                                                      |                                                                                                                           |                                                                                     |
| No.                                                                                                                                                                                                                                                                                                    | Description                                                                                                                                                          | Period of completion                                                                                                      | Amount to be withheld in case of non-achievement of milestone. (% of tender amount) |
| 1                                                                                                                                                                                                                                                                                                      | Submission of drawing/Technical details of major equipment's, Submission of makes as per NIT for approval and place of order for all major materials after approval. | 30 Days                                                                                                                   | 1.00%                                                                               |
| 2                                                                                                                                                                                                                                                                                                      | Supply of Materials.                                                                                                                                                 | 90 Days                                                                                                                   | 1.00%                                                                               |
| 3                                                                                                                                                                                                                                                                                                      | Installation, testing, commissioning of all works.                                                                                                                   | 150 Days                                                                                                                  | 1.50%                                                                               |
| 4                                                                                                                                                                                                                                                                                                      | Completion of all works.                                                                                                                                             | 180 Days                                                                                                                  | 1.50%                                                                               |
|                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                      | Total                                                                                                                     | 5%                                                                                  |
| <b>Time allowed for execution of work:</b>                                                                                                                                                                                                                                                             |                                                                                                                                                                      | <b>06 Months</b>                                                                                                          |                                                                                     |
| <b>Authority to decide:</b>                                                                                                                                                                                                                                                                            |                                                                                                                                                                      |                                                                                                                           |                                                                                     |
| (i) Extension of time                                                                                                                                                                                                                                                                                  |                                                                                                                                                                      | Executive Engineer (E), CPWD, Bhubaneswar (Odisha) or successor thereof.                                                  |                                                                                     |
| (ii) Rescheduling of milestones                                                                                                                                                                                                                                                                        |                                                                                                                                                                      | Executive Engineer (E), CPWD, Bhubaneswar (Odisha) or successor thereof.                                                  |                                                                                     |

|                                                                                                                                                                                                                                                                                       |                                              |                                                                                                                                                                              |                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| (iii) Shifting of date of start in case of delay in handing over of site                                                                                                                                                                                                              |                                              | Executive Engineer (E), CPWD, Bhubaneswar (Odisha) or successor thereof.                                                                                                     |                                                                               |
| <b>Clause 5 Schedule of handing over of site</b>                                                                                                                                                                                                                                      |                                              |                                                                                                                                                                              |                                                                               |
| Part                                                                                                                                                                                                                                                                                  | Portion of site                              | Description                                                                                                                                                                  | Time Period for handing over reckoned from date of issue of letter of intent. |
| Part A                                                                                                                                                                                                                                                                                | Portion without any hindrance                | *                                                                                                                                                                            |                                                                               |
| Part B                                                                                                                                                                                                                                                                                | Portions with encumbrances                   | *                                                                                                                                                                            |                                                                               |
| Part C                                                                                                                                                                                                                                                                                | Portions dependent on work of other agencies | *                                                                                                                                                                            |                                                                               |
| <b>Clause 5 Schedule of issue of designs</b>                                                                                                                                                                                                                                          |                                              |                                                                                                                                                                              |                                                                               |
| Part                                                                                                                                                                                                                                                                                  | Portion of site                              | Description                                                                                                                                                                  | Time Period for handing over reckoned from date of issue of letter of intent. |
| Part A                                                                                                                                                                                                                                                                                | Portion without any hindrance                | *                                                                                                                                                                            |                                                                               |
| Part B                                                                                                                                                                                                                                                                                | Portions with encumbrances                   | *                                                                                                                                                                            |                                                                               |
| Part C                                                                                                                                                                                                                                                                                | Portions dependent on work of other agencies | *                                                                                                                                                                            |                                                                               |
| <b>Clause 6</b>                                                                                                                                                                                                                                                                       |                                              | <b>EMB</b>                                                                                                                                                                   |                                                                               |
| <b>* To be filled by EE(E), CPWD, Bhubaneswar</b>                                                                                                                                                                                                                                     |                                              |                                                                                                                                                                              |                                                                               |
| <b>Clause 7</b>                                                                                                                                                                                                                                                                       |                                              |                                                                                                                                                                              |                                                                               |
| Gross work to be done together with net payment / adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment                                                                                                            |                                              | 10% of Tender Amount or part thereof as decided by Engineer-in-Charge.                                                                                                       |                                                                               |
| <b>Clause 7A</b><br>No Running Account Bill shall be paid for the work till the applicable labour licenses, Registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-charge. Whether Clause 7A shall be applicable |                                              | Yes Applicable                                                                                                                                                               |                                                                               |
| <b>Clause 10A</b><br>List of testing equipments to be provided by the contractor at site                                                                                                                                                                                              |                                              | <b>Megger, EARTH TESTER, Multimeter, Tong Tester</b>                                                                                                                         |                                                                               |
| <b>Clause 10 B (ii)</b><br>Whether clauses 10 B (ii) shall be applicable                                                                                                                                                                                                              |                                              | <b>Not Applicable</b>                                                                                                                                                        |                                                                               |
| <b>Clause 10C (Applicable in only those contracts where clause 10CC is not applicable)</b><br>Components of labour expressed as percent of value of work :                                                                                                                            |                                              | <b>25%</b>                                                                                                                                                                   |                                                                               |
| <b>Clause 10CA</b>                                                                                                                                                                                                                                                                    |                                              | <b>Deleted</b>                                                                                                                                                               |                                                                               |
| <b>Clause 10CC</b><br>Clauses 10 CC to be applicable in contracts with stipulated period of completion exceeding the period of 06 Months.                                                                                                                                             |                                              | <b>N/A</b>                                                                                                                                                                   |                                                                               |
| <b>Clause 11</b>                                                                                                                                                                                                                                                                      |                                              |                                                                                                                                                                              |                                                                               |
| Specifications to be followed for execution of work                                                                                                                                                                                                                                   |                                              | 1. CPWD General Specification for electrical Works with correction slips issued upto last day of receipt of Bids.<br>a) Part-I Internal – 2023<br>b) Part-II External – 2023 |                                                                               |
| <b>Clause 12</b>                                                                                                                                                                                                                                                                      |                                              | Applicable as per <b>GCC-2023(Maintenance)</b> with upto date amendments.                                                                                                    |                                                                               |
| Type of work                                                                                                                                                                                                                                                                          |                                              | <b>Maintenance Work</b>                                                                                                                                                      |                                                                               |
| 12.2. & 12.3                                                                                                                                                                                                                                                                          |                                              | <b>No Limit</b>                                                                                                                                                              |                                                                               |

|                                                                                                                                     |                                                   |                                                             |                                 |                                                                                           |                                                                                                                |                                     |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Deviation limit beyond which clauses 12.2 & 12.3 shall apply for building work.<br><b>(a) For all items of the work</b>             |                                                   |                                                             |                                 |                                                                                           |                                                                                                                |                                     |
| <b>Clause 16</b><br>Competent authority for deciding reduced rates.                                                                 |                                                   |                                                             |                                 | Chief Engineer, CPWD, Bhubaneswar or successor thereof.                                   |                                                                                                                |                                     |
| <b>Clause 17</b><br>Defects liability period shall be 06 Months after date of completion of work issued by the competent authority. |                                                   |                                                             |                                 | <b>EE (E),CPWD,Bhubaneswar</b>                                                            |                                                                                                                |                                     |
| <b>Clause 18</b><br>List of mandatory machinery, tools & plants to be deployed by the contractor at site                            |                                                   |                                                             |                                 | <b>As required for timely execution of work as per direction of Engineer –in – charge</b> |                                                                                                                |                                     |
| <b>Clause 19</b>                                                                                                                    |                                                   |                                                             |                                 | As per OM No.DG/CON/314 dt 24.02.2021.                                                    |                                                                                                                |                                     |
| <b>Clause 19 C</b>                                                                                                                  |                                                   |                                                             |                                 | Engineer -in- Charge                                                                      |                                                                                                                |                                     |
| <b>Clause 19 D</b>                                                                                                                  |                                                   |                                                             |                                 | Engineer -in- Charge                                                                      |                                                                                                                |                                     |
| <b>Clause 19 G</b>                                                                                                                  |                                                   |                                                             |                                 | Engineer -in- Charge                                                                      |                                                                                                                |                                     |
| <b>Clause 19 K</b>                                                                                                                  |                                                   |                                                             |                                 | Engineer -in- Charge                                                                      |                                                                                                                |                                     |
| <b>Clause 25</b><br>As per OM No.DG/CON/317 dt:28.06.2021. and OM No.DG/CON/318 dt:17.08.2021.                                      |                                                   |                                                             |                                 |                                                                                           |                                                                                                                |                                     |
| <b>(i) Conciliator</b>                                                                                                              |                                                   |                                                             |                                 | SDG (Kolkata), CPWD, Kolkata                                                              |                                                                                                                |                                     |
| <b>(ii) Arbitrator Appointing Authority</b>                                                                                         |                                                   |                                                             |                                 | Chief Engineer, CPWD, Bhubaneswar.                                                        |                                                                                                                |                                     |
| <b>(iii) Place of Arbitration</b>                                                                                                   |                                                   |                                                             |                                 | To decided by Arbitrator in consultation with both the parties.                           |                                                                                                                |                                     |
| <b>Clause 32</b>                                                                                                                    |                                                   |                                                             |                                 |                                                                                           |                                                                                                                |                                     |
| <b>Requirement of technical representative(s) and recovery rate ( Electrical)</b>                                                   |                                                   |                                                             |                                 |                                                                                           |                                                                                                                |                                     |
| Sl. No.                                                                                                                             | Minimum Qualification of Technical Representative | Designation of Technical Staff                              | Minimum experience (Years)      | Number (of major + minor component)                                                       | Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32 |                                     |
|                                                                                                                                     |                                                   |                                                             |                                 |                                                                                           | Figures                                                                                                        | Words                               |
| 1                                                                                                                                   | Graduate Engineer or Diploma Engineer             | Project Manager cum planning/ quality/Site/billing Engineer | 2 Years or 5 Years Respectively | 1 of major component                                                                      | Rs.15000/- per month                                                                                           | Rs. Fifteen Thousand only per month |

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

Diploma holder with minimum 10 years relevant experience with a reputed construction company can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

### **Additional Conditions and Specifications for Internal Electrical Installations.**

#### **1. General**

- 1.1. The work shall be generally carried out in accordance with schedule of quantities and the following specifications and conditions.
  - a. CPWD general specifications for electrical work Part-I Internal- 2023, as amended upto date.
  - b. CPWD general specifications for electrical work Part-II external – 2023, as amended upto date.
  - c. Commercial and additional conditions for this work.
  - d. The Indian electricity Act, 2003 as amended upto date.
  - e. Indian electricity rules 1956 amended upto date.
- 1.2. The Department shall not issue any T & P and nothing extra shall be paid on account of this.

#### **2. Rates:**

The rates quoted by the tenderer, shall be firm and inclusive of all taxes (Including works contract tax, labour welfare cess (but excluding service tax), Octroi, duties and levies and all charges for packing, forwarding, insurance, freight and delivery, installation, testing, commissioning etc at site i/c temporary constructional storage, risks, over head charges, general liabilities / obligations and clearance from local authorities.

#### **3. Completeness of tender:**

All sundry equipment, fittings, unit assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections, and all other items which are use full and necessary for efficient assembly and installation of equipment and components of the work shall be deemed to have been included in the tender irrespective of the fact whether such items are specifically mentioned in the tender documents or not.

#### **4. Storage and Custody of Materials:**

The agency has to make his own arrangement for storage, watch and ward of the stores. Their safe custody shall be the responsibility of the contractor till the final taking over of the installation by the department.

#### **5. Care of the Building:**

Care shall be taken by the contractor while handling and installing the various equipments and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste materials arising out of the installation from the site of work.

#### **6. Completion period:**

The completion period indicated in the tender documents is for the entire work of supplying, installation, testing, commissioning and handing over of the entire installation to the satisfactory of the Engineer-in-Charge.

#### **7. Performance Guarantee:**

The tender shall guarantee among other things, the following visa-a-vis specifications.

- a. Quality, strength and performance of the materials used.
- b. Satisfactory operation during the Construction period.

#### **8. Defect Liability Period:**

- a) The entire installation in general shall be guaranteed for a period of 06 Months from the date of completion. Any defective materials and equipment shall be replaced free of cost at the direction of the Engineer-in-Charge within this period.

#### **9. Release of Security Deposit after the warranty period of LED fitting/LED Lamps.**

- a) All the LED Bulbs/LED fittings shall be guaranteed for a period of 5 years
- b) 50% of the Performance Guarantee shall be refunded to the contractor soon after the completion of the work and recording of the completion certificate.
- c) 50% of the Performance Guarantee shall be retained as Security Deposit.

- d) 50% of the Performance Guarantee retained as Security Deposit plus 2.5% Security Deposit already deducted from running bill (Total=2.5+2.5=5%) shall be refunded year wise proportionately.

#### **10. Power Supply:**

No power supply for the purpose of carrying out the work, except for testing and commissioning, shall be provided by the department.

#### **11. Data and Programme to be furnished by the tenderers:**

The Contractor shall prepare the programme chart for the execution of the work showing clearly all activities from the start of work to the completion required for the completion of the work within the stipulated period and submit the same to the Engineer-in-Charge within fifteen days after the issue of letter for commencement of the work. The contractor shall also submit monthly programme and progress report and update / re-schedule the same every month. These shall be submitted by the contractor in soft copy also besides forwarding hard copy of the same.

#### **12. Extent of work:**

- 12.1. The work shall comprise of entire labour including supervision and all materials necessary to make a complete installation and such tests and adjustments and commissioning as may be requirement by the department.
- 12.2. Minor building works necessary like making of opening in walls or in floors and restoring to their original condition, finish and necessary grouting etc as required to be undertaken.

#### **13. Compliance with Regulations and Indian Standards**

- 13.1. All works shall be carried out in accordance out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to this work. In particular, the equipment and installation shall comply with the following:
  - a. Factories Act.
  - b. Indian Electricity Rules.
  - c. IS & BS Standards as applicable.
  - d. Workmen's compensation Act.
  - e. Statutory norms prescribed by local bodies.

#### **14. Indemnity:**

The successful tenderer shall at all times indemnify the department, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the department shall not be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipments and ancillary equipment under the supervision of the successful tenderer in so far as the latter is responsible. The successful tenderer shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful tenderer due to the above.

#### **15. Co-operation with Other Agencies:**

The successful tender shall co-ordinate with other contractors and agencies engaged in the construction of the building and exchange freely all technical information so as to make the execution of this works contract smooth. No remuneration should be claimed from the department for such technical operation. If any unreasonable hindrance is caused to other agencies and any existing portion of the building has to be dismantled and re-done for want of cooperation and coordination by the successful tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of the work was not under taken by the successful tenderer himself. Water proofing of pits shall not be damaged under any circumstances.

#### **16. Verification of Correctness of Material at Destination:**

The contractor shall have to produce all the relevant records to certify that the genuine material from the manufacturers has been supplied and erected.

### 17. Order of Preference:

Should there be any difference or discrepancy between the description of items as given in the schedule of quantities, technical specifications for individual items of work (Including additional and commercial conditions) and IS codes etc, the following order of preference shall be followed:

- a. Schedule of quantities.
  - b. Commercial and additional conditions for this work.
  - c. General conditions of contract for CPWD works.
  - d. Drawings
  - e. CPWD General Specifications.
  - f. Relevant IS or any other International code in case is not available.
18. Executive Engineer (Elect.) shall be the Engineer-in-Charge as far as electrical works are concerned. Separate tender form for electrical component is appended with this tender. It will be obligatory on part of the main contractor to sign the tender documents for all the components.
  19. The main agency shall be responsible for all acts of omissions and submissions of the electrical contractor or sub-contractor engaged by him, even with the approval of the department.
  20. Approval of the Engineer-in-charge shall be taken well in advance for all the materials to be supplied and used in all the works by the contractor.
  21. The contractor has to make his own arrangements for stores and watch and ward and no extra claim for this will be entertained.
  22. Running payment for electrical / mechanical components shall be made by the EE (E) directly to the main contractor. The main contractor shall make the payment to associated contractor within 15 Days of receipt of each running account payment.

### 23. Payments Terms:

On account payments for part work (After stipulated and statutory deductions) as assessed by the Engineer-in-Charge for the applicable items in the contract shall be payable at part rate not exceeding the percentage indicated against the stages of work.

A] Items connected with point wiring, circuit wiring, sub-main wiring, power point wiring and light plug wiring.

| S. N | Stage of work                                                              | Percentage of Rate |
|------|----------------------------------------------------------------------------|--------------------|
| A    | On laying of conduits with accessories, switch boxes, etc.                 | 40%                |
| B    | On drawing of wires i/c terminations, switches, sockets, cover plates etc. | 40%                |
| C    | On completion of installation, testing and commissioning.                  | 15%                |
| D    | At the time of payment of final bill.                                      | 5%                 |

B] Items of Lighting Fixtures, MV Panels, MCBs, MCB DBs, Rising Main, DLP Trunking etc

| S. N | Stage of work                                                                               | Percentage of Rate |
|------|---------------------------------------------------------------------------------------------|--------------------|
| A    | On initial inspection of material and delivery at site in good condition on pro-rate basis. | 70%                |
| B    | On completion of installation on pro-rata basis.                                            | 15%                |
| C    | On completion of testing and commissioning.                                                 | 10%                |
| D    | At the time of payment of final bill.                                                       | 5%                 |

For other items, the part rates will be decided by the Engineer-in-Charge of the work and shall be binding on the contractor.

24. The main contractor shall be responsible for coordinating the activities of all works and will ensure progress of works as per laid down program.

25. The main contractor and / or his associated electrical contractor or his representative is bound to sign the site order books as and when required by the Engineer-in-charge and will comply with the remarks therein.
26. The contractor shall make his own arrangement at his own cost for electrical / general tools and plants required for the work.
27. The connections, interconnections, earthing and loop earthing shall be done by the contractor when ever required to be done for energisation of the installation and nothing extra shall be paid on this account.
28. The contractor must be able to work on concrete slabs / walls as and when required and in complete coordination with the civil works. Cutting of chases in the plastered wall shall in no case be allowed. The contractor shall fix conduits and boxes in the walls soon after the brick work is completed and finish the case to rough surface with proper cement sand mixture. Only in exceptional cases e.g. where cutting of plastered surface can not be avoided it will be contractor's responsibility to ensure that plastering is done to match the original finish at no extra cost.
29. The contractor shall remove all the debris due to the electrical works from the site as soon as the work is completed.
30. The wiring and conduit route shall be marked by the contractor in the drawing first, and shall be got approved from Engineer-in-Charge.
31. Some light points in lobby / corridors / stair case / lift shaft etc are group controlled which will be measured as per specifications.
32. The rupturing capacity of the MCB's shall be **10KA**. The MCB's shall have **ISI mark**. Quantities of MCBs of different rating of 6 amps to 32 amps shall be brought in consultation and after obtaining approval from the Engineer-in-Charge.
33. All the MCCB's shall be rated for **Ics=Icu**
34. The copper wires to be used on this work shall be FRLS type and ISI marked.
35. The make of switch boxes shall be the same as that of switches. Only the required knockouts of the switch boxes are to be removes for terminating the conduit pipes with PVC glands / check nuts.  
Make of MCB / MCCB shall be the same as the make of MCB DB.  
All the switch boxes, MCB DBs are to be covered with plastic sheet / petroleum gelly when installed in brick work till the plastering / painting is done to avoid sticking of cement plaster / splashes of the paint. Cement plaster / paint are to be cleaned immediately after plaster to avoid rusting of switch boxes and MCB DBs. The plastic sheet is to be removed at the time of handing over.  
All pin 15 amp and 6 pin 15/16 amps power sockets, fan regulator shall be of 2/3 module type.
36. The contractor shall submit technical data sheet(TDS) for Engineer-in-charge for approval regarding purchases of wires, modular switches & accessories, MCB's MCB DB, LED fittings, accessories and other items, from the manufacturer's authorization outlets.
37. All PVC conduits accessories shall be of the same make as conduits. The conduits shall be terminated at switch boxes / metallic junction boxes with suitable PVC glands / check nuts.
38. All the sub main and circuit wiring includes loose wire for connections inside switch boxes and MCB DB's No payment for these wires shall be made. However wires within the cubical panel will be measured and paid under relevant item of work. All the circuit/sub main wiring are to be suitably numbered with stickers/maker pen at LT panel, MCB DB's switch boards (ON backside of cover plate) for ease of Construction. Nothing shall be paid extra on this account.
39. The contractor shall submit the completion plan separately in triplicate within 30 days of the completion of work. In case, the contractor fails to submit the plan, he shall be liable to pay a sum equivalent to 2.5% of the value of the work subject to a ceiling of Rs. 25, 000.00.
40. To facilitate drawing of wires, 18 SWG GI fish wire shall be provided along with laying of recessed conduit for which no extra payment shall be made. Conduits laid for other services, like fire alarm, PA etc, where wiring is not done along with EI works, fish wire shall be invariably drawn.

41. The connection between incoming switch / isolator and bus bar shall be made with suitable size of thimble and cable at no extra cost.
42. Copper conductor of insulated cables of size 1.5 Sq.mm and above shall be stranded and terminals provided with crimped lugs.
43. All MS junction box cover should be of phenolic laminated / good quality plastic sheet of thickness not less than 3 mm and for which nothing extra shall be paid on the account.
44. All sub-main/power/light wiring shall be terminated in the main board as well as in the switch boards/socket outlets with suitable copper lugs / thimbles for which nothing extra shall be paid on this account.
45. All hardware items such as screw, thimbles, GI wire etc which are essentially required for completing an item as per specifications will be deemed to be included in the item even when the same have not been specifically mentioned.
46. All hardware items such as nuts / bolts / screws / washers etc to be used in work shall be zinc / cadmium plate iron.
47. Any conduit which is not be wired by the contractor shall be provided with GI fish wire for wiring by some other agency subsequently. Nothing extra shall be paid for the same.
48. While laying conduit, suitable size junction boxes shall be provided for pulling the wire as per the decision of the Engineer-in-Charge.
49. Materials to be used in work are to be ISI marked. The make of the materials have been indicated in the list of acceptable makes. No other makes will be acceptable. The materials to be used in the work shall be got approved by the Engineer-in-Charge / his representative before use at site. The Engineer-in-charge shall reserve the right to instruct the contractor to remove the materials which, in his opinion, is not acceptable.
50. Where switches / sockets / regulator / telephone / TV / internet outlets are to be provided the same shall be of only one make.
51. While laying conduits for fire alarm system, sufficient junction outlets are to be provided as per the direction of the Engineer-in-charge for detectors as reqd.
52. Wherever light fittings are proposed to be provided on the false ceiling, the respective light / fan point wiring will have to be brought up to the terminal of the light fittings / fans by the contractor. Flexible metal conduits shall be used for drawing wires from ceiling to fittings on false ceiling and nothing extra shall be paid to the contractor for the same.
53. Rate Rationalization shall be applicable in case the same item appears more than once in the schedule of work under the same sub-head or among the different subhead of works. Accordingly the lowest rate quoted for that item among all the sub-heads shall be considered for all similar items for evaluation of tender and making payment.
54. All statutory deductions like WCT, labour welfare cess etc. shall be made from the bills.

**Assistant Engineer (E) (P)**  
**BBSR, CPWD, Bhubaneswar**

**Executive Engineer (E)**  
**BBSR, CPWD, Bhubaneswar**

## **FIRE FIGHTING & FIRE ALARM SYSTEM**

### **SPECIAL AND GENERAL CONDITIONS**

- 1.1 The work shall be carried out as per tender specifications and in accordance with the followings :
- a) CPWD General Specifications for Electrical works Part - VI –Fire Detection and Fire Alarm System- 2018 with amendments up to date.
  - b) Part V Wet Riser & Sprinkler Systems – 2020 with amendments up to date.
  - c) BIS Code of practice for Selection, Installation and Maintenance of Automatic Fire detection and Alarm system with amendments up to date.
  - d) CPWD General Specifications for Electrical works Part - I Internal - 2023 as amended up to date.
  - e) CPWD General Specifications for Electrical works Part - II External - 2023 as amended up to date.
- 1.2 The contractor shall carry out the work as per requirements of the Fire Services and Local body regulations as applicable.

### 1.3 BUILDING CONSTRUCTION AND DRAWINGS

***1.3.1 The Contractor shall prepare detailed working drawings in coordination with other Architectural and Services drawing and get these working drawings approved by the Engineer-in-charge. The approval of such drawings by the Engineer-in-charge shall be from the point of view of assisting the Contractor in Coordination of Services with other agencies and shall not absolve the contractor from his absolute and indivisible responsibility on performance and operation of his installation.***

- 1.4 Payments terms: On account payment for part work as assessed by the Engineer-in-Charge for the various items included in the contract shall be payable at part rates not exceeding the percentage indicated against the stages of work.

| S.No | Stage of work                                                                      | Percentage of Rate |
|------|------------------------------------------------------------------------------------|--------------------|
| 1    | <b>On delivery of material at site in good condition on pro-rate basis.</b>        | <b>70%</b>         |
| 2    | <b>On completion of pro-rata installation</b>                                      | <b>15%</b>         |
| 3    | <b>On completion of Testing and commissioning</b>                                  | <b>10%</b>         |
| 4    | <b>On approval of installation by Local Fire Authority and local body, if any.</b> | <b>5%</b>          |

### 1.5 Inspection and Testing

- 1.5.1 The contractor shall provide all necessary facilities for inspection of his equipment. In case of imported equipments, the contractor shall furnish the routine and type test certificates to the satisfaction of Engineer-in- charge. Fire NOC is to be obtained by agency with fire department.
- 1.5.2 All information, documents and tests as required by Fire Services and other local bodies and their final approval for this installation shall have to be arranged by the contractor. All expenditure arising out of inspections of Fire Services or Local body shall have to be borne by the contractor and the same shall not be reimbursed by the department.
- 1.6 Completion Plan: Completion plan indicating the wiring layout, location of detectors, inventories & manuals as per Technical specification shall be provided by the contractor after completion of work and before payment of Final Bill.

## A. **GENERAL CONDITIONS**

### A.1 **SCOPE OF WORK**

A.1.1 These specifications shall cover the Design, Supply, Erection, Testing, and Commissioning of Analog Addressable Fire Detection System for **ILS, Bhubaneswar**.

### A.2. **SCHEDULE OF REQUIREMENTS**

A.2.1 It is the intent of this specification to define a state-of-art Analog Fire Alarm System, which is user friendly, modular, flexible and expandable. The system is to be designed, installed, customised, tested, commissioned and supported by a local office or agent of the manufacturer by Engineers skilled in providing functional and efficient solutions to the needs of the Engineer in charge and compatible to the existing system of the building.

A.2.2 The Vendor shall have an in-place support facility in Bhubaneswar equipped with Competent Support Staff, Spare Parts Inventory and all the necessary Test and Diagnostic Equipment to provide support within 24 hours of any breakdowns.

A.2.3 The entire installation shall be in accordance with the requirements and stipulations of the **Local Fire Services and his office**. In addition, it shall also be in accordance with the national building code and local fire service by-laws.)

A.2.4 Agency shall visit the **ILS, Bhubaneswar** where work is to be executed before quoting the tender.

A.2.5 **As the work is of restoration in nature, hence replacement of any item (s) should be compatible with the existing Analog Addressable Fire Alarm & Fire-fighting System as a whole.**

### A.3. **TECHNICAL DATA**

A.3.1 The tenderer shall submit comprehensive technical information for all the equipment and material. This must include but not necessarily be restricted to, all data as required under **"SCHEDULE OF TECHNICAL DATA"**

A.3.2 Information given by the tenderer under chapter "SCHEDULE OF TECHNICAL DATA" is meant for general information only. In case of discrepancies between tender specifications and details given by the tenderer under chapter "SCHEDULE OF TECHNICAL DATA", the decision of Engineer-in-charge will be final and binding on Contractor unless departures are indicated by the Tenderer under chapter "SCHEUDLE OF DEPARTURE FROM SPECIFICATION" as mentioned here in after.

### A.4. **PERFORMANCE GUARANTEE AND TESTING**

A.4.1 The Contractor shall execute the work on the basis of indicative designs hereby given and accepted by him with or without modifications or new designs submitted by him at the tender stage and accepted by Engineer in charge, as the case may be. All Variations, i.e. additions, omissions or substitutions necessitated at any time for any reason whatsoever, shall be deemed to have been accepted by the Contractor as not vitiating the performance based nature of this contract. If any such variations, irrespective of whether such variations are intended to be executed by other agencies employed by the Engineer-in-charge, have any bearing on the performance of this Contract, the same shall immediately be brought to the notice of Engineer-in-charge by the Contractor in writing. In any case the Contractor shall have to guarantee for due and proper performance of the works agreed to be so erected.

A.4.2 The Fire Detection and alarm System installation shall be designed and guaranteed to perform as per these specifications read in conjunction with statutory requirements.

A.4.3 In addition to the above, all equipment and systems shall be tested after installation/restoration / repair as required by various statutory authorities, certifying agencies and as required by various sections of these specifications.

A.4.4 The Contractor shall take full responsibility for proper operation of the entire system including debugging and proper calibration of each component and sub-system.

A.4.6 The Contractor shall leave necessary provisions required for fixing instruments, gauges, meters, etc. for testing the installation. The Contractor at his own cost shall arrange all such instruments, services etc. needed for the tests.

- A.4.7 It is the sole responsibility of Contractor to obtain all the necessary approvals from the statutory authorities, either prior to, during or after installation as required. All tests specified herein-after and witnessed/ approved by Engineer-in-charge, may be deemed to be invalid at the option of Engineer-in-charge, if the requisite, final and unconditional approvals from the concerned statutory authorities are not obtained by the Contractor.
- A.4.8 The Contractor shall intimate in writing to Engineer-in-charge as and when individual components of the installation are ready for tests required for further progress of erection. All such tests shall be carried out as per these specifications and/ or as directed by Engineer-in-charge and recorded in the presence of Engineer-in-charge or his authorized representatives.
- A.4.9 On completion of erection, the contractor shall thoroughly clean all the equipment, inspect and check the entire installation for correctness and completeness and furnish a detailed report on all components of the installation to Engineer-in-charge. The contractor shall also inspect and check the services required by him and provided by other agencies employed by the Engineer-in-charge and confirm the completeness and correctness of such services to the extent necessary.
- A.4.10 The Contractor shall intimate in writing to Engineer-in-charge, the proposed date of initial startup.
- A.4.11 The Contractor shall, on approval of Engineer-in-charge, proceed with necessary pre-commissioning activities and tests and put the installation in initial operation and start-up during which preliminary adjustments and addressing shall be carried out.
- A.4.12 based on preliminary observations during the initial operation described above, necessary modifications/ repairs/ replacements/ etc. if any shall be carried out by the Contractor to the entire satisfaction of Engineer-in-charge. On successful completion of initial operation, the Contractor shall proceed with trial runs.
- A.4.13 Notwithstanding approval of tests or equipment or materials by Engineer-in-charge etc., up to the tests in static state as described here-in above, the Contractor shall be required to perform site tests to prove correctness of ratings and performance of equipment and materials supplied and installed by him, in normal operating condition.
- A.4.14 All equipment shall be capable of performing the duties specified in these specifications without damage, distortion or failure of any component.
- A.4.15 Individually, the performance of various equipments shall not be less than quoted ratings and consumption of power shall not exceed the ratings quoted by the tenderer, when tested in normal operating conditions. Otherwise the equipment / material is liable for rejection.
- A.4.16 All test instruments shall be calibrated for accuracy prior to taking the performance tests.

## **A.5 INSTALLATION:**

- A.5.1 Installation shall be in accordance with the local and state codes and as recommended by the equipment manufacturer.
- A.5.2 Smoke detectors shall not be installed prior to the system programming and test period. If construction is ongoing during this period, measures shall be taken to protect smoke detectors from contamination and physical damage.
- A.5.3 All wiring shall be properly supported and run in a neat and workmanship like manner. All wiring exposed and in equipment rooms shall be parallel to or at right angles to the building structure. All wiring within enclosures shall be neatly bundled and anchored to prevent obstruction to devices and terminals.
- A.5.4 The Contractor shall be responsible for all electrical installation required for a fully functional control system and not shown on the electrical plans or required by the electrical specifications.
- A.5.5 All fire detection and alarm system devices, control panels and remote annunciators shall be flush mounted or surface mounted as per instructions of the Engineer-in-charge.
- A.5.6 Manual call boxes shall be suitable for surface mounting or semi-flush mounting and shall be installed at a height of not less than 1,000 mm, and not more than 1200 mm above the finished floor level.
- A.5.7 The service of a competent, factory-trained engineer or technician authorized by the manufacturer of the fire alarm equipment shall be provided to technically supervise and participate during all of the adjustments and tests for the system.
- A.5.8 At the final inspection, an authorized representative of the manufacturer of the major equipments shall demonstrate that the system functions properly in every respect.

**A.6 DEMONSTRATION:**

- A.6.1 The Contractor shall completely check, calibrate and test all connected hardware and software to ensure that the system performs in accordance with the approved specifications and sequences of operations submitted.
- A.6.2 This demonstration shall consist of the following:
  - a) Display and demonstrate each type of data entry to show site-specific customizing capability.
  - b) Demonstrate parameter changes.
  - c) Demonstrate scan, update and alarm responsiveness.

**A.7 MANUALS**

The following manuals shall be provided at the time of Handing over:

- A.7.1 An Operator's Manual containing graphic explanations of keyboard use for all operator functions specified under Operator Training.
- A.7.2 Computerized printouts of all data file layouts including all point processing assignments, terminal relationships, scales and offsets, command alarm limits, program flowcharts, etc.
- A.7.3 On completion of works "***As Built drawings for completed installation***" shall be prepared by the Contractor and three (3) copies of the same shall be supplied to the Engineer-in-Charge. In addition, Three (3) sets of the followings shall be supplied to the Engineer-in-charge:
  - 1) Operation Manuals
  - 2) Technical Literature for the various components of equipment
  - 3) Controls and Accessories installed
  - 4) Recommended Spares and Service Manuals

**A.8 TRAINING & HANDING OVER**

- A.8.1 All training by the Contractor shall utilize manuals and as-built documentation and the on-line help utility.
- A.8.2 Operator training shall include:
  - a. Sequence of Operation review
  - b. Sign ON - Sign OFF
  - c. Selection of all displays and reports
  - d. Commanding of points, keyboard
  - e. System initialization
  - f. Trouble shooting of sensors (determining bad sensors)
  - g. Password modification
- A.8.3 Supervisor training shall include:
  - a. Password assignment / modification
  - b. Operator assignment/modification
  - c. Operator authority assignment/modification
  - d. Point disable/enable
  - e. Terminal and data segregation/modification

**A.9 GUARANTEE**

- A.9.1 The contractor shall guarantee the entire Intelligent Addressable Fire Alarm system installation as per specifications both for components and for system as a whole. All equipment shall be guaranteed for **One year from the date of completion** against unsatisfactory performance or breakdown due to defective design, manufacture and/or installation.
- A.9.2 Labour to trouble shoot, repair, reprogram or replace system components shall be furnished by the contractor at no charge to the Engineer-in-charge during the guarantee period.
- A.9.3 All corrective software modifications made during guarantee period shall be updated on all user documentation.

**A.10. MISCELLANEOUS:**

- A.10.1 The onus of incorporating the statutory requirements as per local rules and obtaining necessary approval for the fire alarm systems shall rest fully with the Contractor.
- A.10.2 All the Equipment Supplied and Installed by the Contractor shall have compatibility to be connected to Standard Building Management System (BMS). Adequate Potential Free Contacts shall be provided for sending/ receiving digital signals.
- A.10.3 The installation shall be carried out using new Equipment/ Materials complying with applicable standards in a workmanship like manner. Engineer-in-charge reserves the right to reject any part of installation having poor workmanship.

A.10.4 All minor Masonry, Carpentry and Civil works such as cutting / opening in Masonry Walls/ Internal Partitions, Chasing on Walls, etc. and making good the same to match existing surface shall be done by the Contractor. Nothing extra shall be paid on this account.

|                                                                                  |
|----------------------------------------------------------------------------------|
| <b>Association of Agencies for Execution of E&amp;M Works by Main Contractor</b> |
|----------------------------------------------------------------------------------|

1. The main contractor has to enter into MoU with eligible specialized agency/ E&M agencies/contractor(s) associated by him for this works. The Composite Contractor and the associated specialized agencies are giving required affidavit to confirm their association. Copy of such MoU shall be submitted to EE (E) in charge of each relevant component as well as to EE incharge of major component. The **Eligibility Criteria for Association of Agencies for Execution of E&M** works are detailed in **Para 10** below.
2. Tender accepting authority approves the change of Sub-Agency in case it is required during the currency of the contract. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. Incase Engineer-in-charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.
3. In event of the concerned E&M agency not performing satisfactorily or failure of associate/sub-contractor to complete the E&M work, the main contractor on the written direction of the department, shall remove the Associate/sub-contractor deployed on the work and shall submit name of new associate who fulfills the conditions mentioned in NIT to execute the leftover work without any loss of time or variation in cost to the department in this regard. Such associates shall also enter into Agreement with the main tenderer and shall meet all the guarantee for the equipments already supplied for which payment has been released by the department in part. If any equipment supplied for the work, during the currency of the earlier Associate/sub-contractor and paid partly by the department, becomes redundant /not in a position to be installed and commissioned and put to beneficial use due to change in agency for execution of E&M work, the main contractor shall be liable for replacement of the equipment(S) at no cost to Department, No change of Electrical Contractor will be allowed without prior approval of the Tender accepting authority.
4. The main firm should submit the willingness from eligible electrical/specialized contractors to get associated with them for execution of the electrical component of works in wholesome manner and as per the conditions set out in the MOU to be entered into, between the one who is awarded the work and the associated eligible electrical contractor.
5. In support of the eligibility conditions of the proposed associated electrical Agencies, copy of their registration documents, Electrical Contractor's License, GST documents, eligibility documents, Experience Certificate by competent authority, shall have to be submitted. Such associate electrical Agencies will certify that they are not debarred as on the day of application by Central Govt /State Govt. Deptt., Central/State Govt. PSU/ Autonomous Bodies.
6. The main contractor shall be responsible and liable for proper and complete execution of the E&M Services, and ensure coordination and completion of both civil and electrical works.
7. The associate or sub-contractor shall attend the inspection of the work by the Engineer-in- charge of E&M works as and when required. The agencies executing the electrical work should have valid license for LT/HT as applicable and as described in eligibility criteria.
8. Verifiable completion certificates of the work eligibility documents as the case may be, duly attested by the applicant shall be submitted. Valid Electrical Contractor' license, as the case may be, duly countersigned by the applicant as well as signed by the associate contractors shall also be submitted. Self-attested GST documents in respect of the associated agencies as well as signed by associate firms shall be submitted along with the tender documents.
9. For the different E&M subheads, the main contractor will have to engage the associate electrical contractor/specialized agency in the field after award of work as per following:-
  - i. The main contractor / firm should either himself meet the eligibility conditions for the respective E&M packages or otherwise he will have to associate an agency meeting the eligibility requirements given below.
  - ii. The firm should have successfully completed similar works during the last 7 years ending upto previous day of last date of submission of tender for each sub heads:

- iii. The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the last date of submission of bid.

10. **Eligibility Criteria for Association of Agencies for Execution of E&M Works.**

- 10.1 Sub-head wise total cost is taken as below for the purpose of Eligibility Criteria only, which is rough cost and should not be used or interpreted for any other purpose.
- 10.2 SITC means: Supplying, Installation, Testing & Commissioning.
- 10.3 The main contractor/ lowest tenderer, is also eligible to carry out work himself / herself any or all of these works without associating any specialized agency provided: -
- He fulfills the prescribed eligibility criteria respectively for these work(s).  
OR
  - He directly procures the equipment of approved make from manufacturer and gets it installed from authorized agency/service provider of the manufacturer or specialized agency as per criteria mentioned in NIT.
- 10.4 The lowest tenderer/ main contractor has to submit, along with the performance guarantee after the acceptance of tender, an undertaking from the OEM regarding: -
- Authorization certificate.
  - The OEM is unconditionally supporting the lowest tenderer technically throughout the execution of contract as well as for maintenance/comprehensive maintenance contract for the useful life of the system.
  - OEM is providing all the spares required for healthy functioning of the equipment for at least seven years from the date of supply of equipment.
- 10.5 The Eligibility criteria for association of agencies for execution of E & M works for respective subhead/package with definition of similar work are detailed in table below:

| S.N | Components of E&M works           | Estimated cost in lacs | Minimum eligibility Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----|-----------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Fire Fighting / Fire Alarm System | 25.98 Lacs             | <p>The contractor shall have to associate with agency fulfilling the following eligibility criteria (if he himself does not full fill the eligibility criteria) having successfully completed during last seven years ending up to previous day of last date of submission of tender as given below with completion certificate issued by an officer not below the rank of Executive Engineer or equivalent duly attested.</p> <p><b>Three similar completed works each of value not less than Rs. 10.39 Lakhs which is 40% of estimate cost</b></p> <p><b>OR</b></p> <p><b>Two similar completed works each of value not less than Rs. 15.58 Lakhs which is 60% of estimate cost</b></p> <p><b>OR</b></p> <p><b>One similar completed work of value not less than Rs. 20.78 Lakhs which is 80% of estimate cost</b></p> <p>Similar work shall mean "<b>SITC of Fire Fighting / Fire Alarm System</b>"</p> |

**Note:** The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from the date of completion to last date of submission of tender.

## LIST OF APPROVED MAKES OF MATERIALS

| S.No | Description of item                                                                                                       | Acceptable Makes                                                                                   |
|------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1    | Wires (PVC insulated copper conductor cable FRLS-ISI marked)/Telephone cables / Submersible cables / Co-axial / TV cables | Havells/ Finolex/KEI/RR Kabel/Polycab.                                                             |
| 2    | PVC Conduits (ISI marked) (color of conduit : Ivory / Grey)                                                               | Precision/AKG/BEC/GM/Norpack/Atul                                                                  |
| 3    | Steel Conduit (ISI marked)                                                                                                | BEC/AKG/RMCON/Steel Kraits/Precision/Atul                                                          |
| 4    | Modular Switches/Sockets/TV Socket / Telephone sockets / Data Sockets / Electronic Regulators / AC Starter Switch etc.    | Phillips / Wipro / Havells / K-Lite / LT / Trilux / Regent                                         |
| 5    | MCB DBs/ Industrial Socket outlets                                                                                        | Legrand/Schneider/LK(Exora)/ABB/SIEMENS/C&S                                                        |
| 6    | MCBs / RCBO / Isolators                                                                                                   | Legrand/Schneider Electric/LK/ABB/SIEMENS/C&S-EPITONE                                              |
| 7    | MCCBs                                                                                                                     | Legrand (DPX3)/LK (D-sine)/Schneider Electric (Compact NSX/EasyPact CVS)/ ABB(T-Max)/SIEMENS (3VL) |
| 8    | CAT 6/6 A LAN cable (Strcutured Cabling)                                                                                  | Panduit/Belden/Schneider/Systamix (COMMSCOPE), Molex/ Legrand/Delton                               |
| 9    | LED Luminaries including street light fittings.                                                                           | Phillips/Wipro/Havells/ K-Lite/LT/Trilux/Regent                                                    |
| 10   | 300mm / 230mm metallic body (Heavy duty) - Exhaust fans                                                                   | Crompton/Orient/Bajaj/Almonard/Atomberg/USHA                                                       |
| 11   | 1200 mm sweep ceiling fans with BLDC motor                                                                                | Orient/Havells/Atomberg/USHA                                                                       |
| 12   | 400 mm Wall mounted fan                                                                                                   | Khaitan/ Almonard/ Crompton / Orient /USHA                                                         |
| 13   | GI pipes                                                                                                                  | TATA/Jindal/Surya/SAIL                                                                             |
| 14   | Junction Box                                                                                                              | Obo Betterman/Hensel/ Legrand/C & S/Hager/ Trinity Touch                                           |
| 15   | DWC Pipes                                                                                                                 | TeleRex/Dutron/VekayPlast/Duroline/Supreme/Gemini                                                  |
| 16   | 1.1KV grade aluminium conductor, XLPE insulated armoured UG Cables                                                        | Havells/KEI/Gloster/Finolex/Polycab/RR Kabel                                                       |
| 17   | HT Jointing kit and termination joint                                                                                     | 3M/Tropolin/Densons/Raychem/CCI-Xicon/Mahindra                                                     |
| 18   | Loop Control Panel / Repeater panel                                                                                       | Bosch/ Siemens/Notifier/Edwards                                                                    |
| 19   | Multi Sensor Detectors                                                                                                    | Bosch/ Siemens/Notifier/Edwards                                                                    |
| 20   | Addressable Call Point                                                                                                    | Bosch/ Siemens/Notifier/Edwards                                                                    |
| 21   | Response Indicators                                                                                                       | Bosch/ Siemens/Notifier/Edwards                                                                    |
| 22   | Horn cum Strobe                                                                                                           | Bosch/ Siemens/Notifier/Edwards                                                                    |
| 23   | Fire Control Modules                                                                                                      | Bosch/ Siemens/Notifier/Edwards                                                                    |
| 24   | SMF Battery                                                                                                               | Panasonic/ Exide/Rocket/HBL Power/Amaron                                                           |

|    |                |                                            |
|----|----------------|--------------------------------------------|
| 25 | PA System      | As per OEM of Fire Control Module          |
| 26 | Any other item | <b>To be decided by Engineer-In-Charge</b> |

**Assistant Engineer (E) (P)**  
**BBSR, CPWD, Bhubaneswar**

**Executive Engineer (E)**  
**BBSR, CPWD, Bhubaneswar**

**NIT NO. 55/EE-E/BBSR/CPWD/2026-27****SCHEDULE OF QUANTITY**

**Name of work : Repairing/Replacement of damaged wiring and fittings of R&S Home building for Ground, First and Second Floor and Replacing Fire Alarm System in R&D Building etc. at ILS Campus-1, Bhubaneswar.**

| S No  | Description of Items                                                                                                                                                                                                                                                                                                                                                  | Qty  | Unit  | Rate    | Amount    | Remarks |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|---------|-----------|---------|
| 1     | <b>Sub Head- I (WIRING)</b>                                                                                                                                                                                                                                                                                                                                           |      |       |         |           |         |
| 1.1   | Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable etc. as required. |      |       |         |           |         |
| 1.1.1 | Group C                                                                                                                                                                                                                                                                                                                                                               | 20   | Point | 1704.00 | 34080.00  | 1.10.3  |
| 1.2   | Wiring for light/ power plug with 2X4 sq. mm FRLS/HFFR PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit along with 1 No. 4 sq. mm FRLS/HFFR PVC insulated copper conductor single core cable for loop earthing as required.                                                                                             | 100  | Mtr   | 373.00  | 37300.00  | 1.12    |
| 1.3   | Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS/HFFR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.                                                                                                                                                           |      |       |         |           |         |
| 1.3.1 | 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire                                                                                                                                                                                                                                                                                                                            | 100  | Mtr   | 267.00  | 26700.00  | 1.14.1  |
| 1.4   | Rewiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable and 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable as earth wire in existing surface/ recessed steel/PVC conduit including dismantling as required.                                           |      |       |         |           |         |
| 1.4.1 | Group C                                                                                                                                                                                                                                                                                                                                                               | 882  | Point | 1064.00 | 938448.00 | 1.15.3  |
| 1.5   | Supplying and drawing following sizes of FRLS/HFFR PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.                                                                                                                                                                                                |      |       |         |           |         |
| 1.5.1 | 3 x 1.5 sq. mm                                                                                                                                                                                                                                                                                                                                                        | 600  | Mtr   | 104.00  | 62400.00  | 1.17.3  |
| 1.5.2 | 6 x 1.5 sq. mm                                                                                                                                                                                                                                                                                                                                                        | 200  | Mtr   | 195.00  | 39000.00  | 1.17.6  |
| 1.5.3 | 3 x 4 sq. mm                                                                                                                                                                                                                                                                                                                                                          | 1150 | Mtr   | 222.00  | 255300.00 | 1.17.21 |
| 1.5.4 | 6 x 4 sq. mm                                                                                                                                                                                                                                                                                                                                                          | 1000 | Mtr   | 424.00  | 424000.00 | 1.17.24 |

|        |                                                                                                                                                                                                                                                                                                            |     |      |        |           |        |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|--------|-----------|--------|
| 1.6    | Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.                                                                                                  |     |      |        |           |        |
| 1.6.1  | 20 mm                                                                                                                                                                                                                                                                                                      | 100 | Mtr  | 151.00 | 15100.00  | 1.21.1 |
| 1.6.2  | 25 mm                                                                                                                                                                                                                                                                                                      | 100 | Mtr  | 168.00 | 16800.00  | 1.21.2 |
| 1.7    | Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.                                                                                                                                       |     |      |        |           |        |
| 1.7.1  | 5/6 amps switch                                                                                                                                                                                                                                                                                            | 900 | Each | 121.00 | 108900.00 | 1.24.1 |
| 1.7.2  | 6 pin 15/16 A socket outlet ( For AC)                                                                                                                                                                                                                                                                      | 63  | Each | 219.00 | 13797.00  | 1.24.5 |
| 1.7.3  | Bell push                                                                                                                                                                                                                                                                                                  | 45  | Each | 159.00 | 7155.00   | 1.24.8 |
| 1.7.4  | 25 A Motor Starter                                                                                                                                                                                                                                                                                         | 63  | Each | 807.00 | 50841.00  | MR     |
| 1.8    | Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc. as required.                                                                                                                                                                |     |      |        |           |        |
| 1.8.1  | 1 or 2 Module (75mmX75mm)                                                                                                                                                                                                                                                                                  | 171 | Each | 354.00 | 60534.00  | 1.27.1 |
| 1.8.2  | 3 Module                                                                                                                                                                                                                                                                                                   | 30  | Each | 384.00 | 11520.00  | 1.27.2 |
| 1.8.3  | 4 Module                                                                                                                                                                                                                                                                                                   | 30  | Each | 401.00 | 12030.00  | 1.27.3 |
| 1.8.4  | 6 Module (200mmX75mm)                                                                                                                                                                                                                                                                                      | 40  | Each | 462.00 | 18480.00  | 1.27.4 |
| 1.8.5  | 12 Module (200mmX150mm)                                                                                                                                                                                                                                                                                    | 40  | Each | 614.00 | 24560.00  | 1.27.6 |
| 1.9    | Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. (For light plugs to be used in non residential buildings).          | 63  | Each | 545.00 | 34335.00  | 1.31   |
| 1.10   | Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.                                                                | 120 | Each | 659.00 | 79080.00  | 1.32   |
| 1.11   | Supplying and fixing call bell/ buzzer suitable for single phase, 230 volts, complete as required.                                                                                                                                                                                                         | 45  | Each | 112.00 | 5040.00   | 1.38   |
| 1.12   | Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed steel/ PVC conduit as required.                                                                                                                                                                                      |     |      |        |           | 1.53   |
| 1.12.1 | 1 run of cable                                                                                                                                                                                                                                                                                             | 100 | mtr  | 64.00  | 6400.00   | 1.53.1 |
| 1.12.2 | 2 run of cable                                                                                                                                                                                                                                                                                             | 50  | mtr  | 104.00 | 5200.00   | 1.53.2 |
| 1.12.3 | 3 run of cable                                                                                                                                                                                                                                                                                             | 30  | mtr  | 144.00 | 4320.00   | 1.53.3 |
| 1.13   | Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings). | 138 | Each | 757.00 | 104466.00 | 1.56   |
| 2      | <b>Sub Head-III (FITTING &amp; FIXTURES)</b>                                                                                                                                                                                                                                                               |     |      |        |           |        |

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| 2.1   | Supplying, installation, Testing & Commissioning of LED Recessed/ surface Down lighter (Round/ square/ Rectangular) SMD type of following body material with PMMA and prismatic diffuser and construction as per IS : 10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range -15 deg to 40 deg centigrade, internal surge protection of 2.5 KV with Short & Open circuit protection ,THD < 10% , P. F.≥0.95, IP20, CRI >80 , UGR (Unified Glare Rating) < 19, Flicker free (flicker should be below 5%), life time (LED,Driver & electrical circuitary), of minimum 50000Burning Hours with 70% of initial Lumen maintained till life ends , CCT 3000°K / 4000°K / 5700°K / 6000°K / 6500°K (As per ANSI Bin), SDCM (Standard Deviation Color Matching) <3, |     |      |         |           |       |
|       | Maximum power consumption should not more than the specified rating and Fixture shall be confirming to relevant BIS standards and trade mark certificate (T.C.). Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing Complete in all respect i/c connections with 1.5 sq mm FRLS, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy ≥105 and <120 lm/Watt output . LM79 & LM80 Test report from NABL lab for all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminum housing such that LED junction temperature shall not rise above 90°C)                                                     |     |      |         |           |       |
| 2.1.1 | 12 -15 watt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 366 | Each | 715.00  | 261690.00 | 8.1.3 |
| 2.2   | Supplying, installation, testing and commissioning of energy efficient 18-20 watt LED Lamps with an efficient diffuser including electronic driver having lumen efficacy ≥ 100 lm/watt, PF ≥ 0.95, CRI ≥ 80, THD < 10% with separate precoated batten directly on ceiling/ wall i/c connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable suitable for 230 V, 50 Hz, AC supply and earthing etc. as required.                                                                                                                                                                                                                                                                                                                                                                                                             | 168 | Each | 1021.00 | 171528.00 | MR    |
| 2.3   | Supplying,installation,testing and commissioning of Sleek LED 10 watt bulk head light fitting With extruded polycarbonate housing, High optically efficient diffuser,Operating temp range 0-45 C, ,THD < 10% , P. F.≥0.95, IP65, CRI ≥80 above wash basin complete with all accessories etc. directly on wall, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.                                                                                                                                                                                                                                                                                                                                                                                                             | 6   | Each | 1479.00 | 8874.00   | MR    |

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |     |      |         |           |       |
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| 2.4   | SITC of LED Mirror Light of 10-12 watt With Aluminium housing, lumen output $\geq 100$ lm/Watt, P.F. $\geq 0.95$ , THD $< 10\%$ , CRI $>80$ , length 550-600 mm directly on wall, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 51  | Each | 567.00  | 28917.00  | MR    |
| 2.5   | Supply, Installation, Testing and Commissioning of ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. metal( Aluminium alloy) blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, steel/Al body Power Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS : 374-2019), THD (Total Harmonic Distortion) less than 10%, suitable for operation with regulator for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 $^{\circ}$ C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC supply, Ceiling Fan compliant to IS 374:2019 fan i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required. |     |      |         |           |       |
| 2.5.1 | 1400mm, service value $\geq 6.0$ CM/Min/Watt, air delivery 245 CM/Min (Minimum)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 120 | Each | 2737.00 | 328440.00 | 9.2.4 |
| 2.6   | Supply, Installation, Testing and Commissioning of 250 mm sweep Plastic body exhaust fan, 1200 rpm, air delivery 860m <sup>3</sup> /hr, 35watt, ISI marked fan with shutter suitable for 230 volts, 50 Hz. AC supply i/c connection etc as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 51  | Each | 2609.00 | 133059.00 | MR    |
| 2.7   | Supply, installation of following sweep ISI marked 400 mm sweep wall fan i/c connection, testing, commissioning suitable for 230 volts,50 Hz.AC supply etc as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 75  | Each | 3891.00 | 291825.00 | MR    |
| 3     | <b>SH-IV (Fire Alarm System)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |      |         |           |       |

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|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|-----------|-------------------|----------|
| 3.1   | Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5 % V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per specifications. |     |      |           |                   |          |
| 3.1.1 | Two Loop Panel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1   | Each | 250420.00 | 250420.00         | 28.2.1.2 |
| 3.2   | Supplying, installation, testing & commissioning of repeater panel with 320 character/ Touch screen LCD display with inbuilt reset, acknowledge and silence switches complete as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8   | Each | 113734.00 | 909872.00         | 28.2.3   |
| 3.3   | Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector complete with mounting base complete as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 290 | Each | 3004.00   | 871160.00         | 28.2.4   |
| 3.4   | Supplying, installation, testing & commissioning of response indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 30  | Each | 306.00    | 9180.00           | 28.2.5   |
| 3.5   | Supplying, installation, testing & commissioning of addressable manual call point complete as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 30  | Each | 4063.00   | 121890.00         | 28.2.14  |
| 3.6   | Supplying, installation, testing & commissioning of addressable horn cum strobe complete as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 30  | Each | 3682.00   | 110460.00         | 28.2.15  |
| 3.7   | Supplying & laying of 2x1.5 sqmm fire alarm armoured cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS/HFFR outer sheath complete as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 800 | mtr  | 192.00    | 153600.00         | 28.5.2   |
| 3.8   | Dismantling of wiring, MS switch box, modular/piano type switch, sockets, hylem sheet, etc complete as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 78  | Job  | 2208.00   | 172224.00         | MR       |
|       | <b>Total Rs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     |      |           | <b>6218925.00</b> |          |
|       | Less for Recovery of following dismantled items                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     |      |           |                   |          |

|     |                                                                                                                   |   |     |            |                   |    |
|-----|-------------------------------------------------------------------------------------------------------------------|---|-----|------------|-------------------|----|
| 3.9 | Assorted of wiring, MS switch box, modular/piano type switch, sockets, hylem sheet, fan etc complete as required. | 1 | Job | 24923.00   | 24923.00          | MR |
| 4   | Existing Fire Alarm panel , detectors , mcp , hooter etc.                                                         | 1 | Job | 10000.00   | 10000.00          | MR |
|     | <b>Total Recovery Rs</b>                                                                                          |   |     | <b>(-)</b> | <b>34,923.00</b>  |    |
|     | <b>Total Rs</b>                                                                                                   |   |     |            | <b>6184002.00</b> |    |
|     | <b>SAY Rs.</b>                                                                                                    |   |     |            | <b>6184002.00</b> |    |

**Assistant Engineer (E) (P)**  
**BBSR, CPWD, Bhubaneswar**

**Executive Engineer (E)**  
**BBSR, CPWD, Bhubaneswar**