# Supplying, Installation, Testing and Commissioning of 13 Passenger Lifts (2 Nos.) at Faculty Building of IIT Kanpur with Buy back option.

*BID DOCUMENT*

SUPERINTENDING ENGINEER
INDIAN INSTITUTE OF TECHNOLOGY KANPUR
January 2025

Indian Institute of Technology Kanpur

# Contents

*It is certified that this document contains **72** pages starting with Page No. i*

Superintending Engineer

# 1 Notice Inviting e-Tenders

The Superintending Engineer on behalf of Board of Governors of Indian Institute of Technology Kanpur invites online percentage rate tenders from eligible firms / agencies satisfying the eligibility criteria mentioned in the document.

NIT No: **60/EE/Elect/2024-25**

| | | | |
|---|---|---|---|
| 1 | Name of work | : | **Supplying, Installation, Testing and Commissioning of 13 Passenger Lifts (2 Nos.) at Faculty Building of IIT Kanpur with Buy back option** |
| 2 | Estimated Cost exclusive of GST | : | **Rs. 58,34,947/-** |
| 3 | Earnest Money Deposit (Rs.) | : | **Rs. 1,16,699/-** (In favour of Director IIT Kanpur) |
| 4 | Duration of contract | : | Three (03) months |
| 5 | **Last Time & date of submission of bids (Up to)** | : | As per CPP portal data (https://eprocure.gov.in/eprocure/app) |
| 6 | **Opening of bids** | : | As per CPP portal data |
| 7 | **Time allowed for submission of requisite documents by lowest bidder** | : | Within **One week** of opening of financial bids |

The bid forms and other details may be downloaded from Central Public Procurement Portal (http://eprocure.gov.in/eprocure/app). Aspiring bidders who have not enrolled / registered in e- procurement should enroll / register themselves before participating through web site http://eprocure.gov.in/eprocure/app. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at "Instructions for online bid submission."

Bidders can access quotation / tender documents on the website (for searching in the NIC site), kindly go to quotation search option and type 'IIT'. Thereafter, click on "GO" button to view all IIT quotations. Select the appropriate quotation / tender and fill them with all relevant information and submit the completed Quotation / Tender document online on the website http://eprocure.gov.in/eprocure/app as per the schedule given in the next page.

**Note: No manual bids will be accepted. All bids (both Technical & Financial) should be submitted in the e-procurement portal.**

Applicants are advised to keep visiting the above-mentioned websites from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respect including updates thereof, if any. An incomplete application may be liable for rejection.

Superintending Engineer

# 2 Information and Instructions for Bidders for E-Tendering

The Superintending Engineer on behalf of Board of Governors of Indian Institute of Technology Kanpur invites online percentage rate tenders from eligible firms / agencies satisfying the eligibility criteria mentioned in the document

## 2.1 Schedule

| | | | |
|---|---|---|---|
| **1** | Name of organization | : | Indian Institute of Technology Kanpur |
| **2** | NIT No | : | 60/EE/Elect/2024-25 |
| **3** | Location | : | Indian Institute of Technology Kanpur |
| **4** | Tender / Quotation type (open / limited / EOI / auction / single) | : | Open |
| **5** | Tender / Quotation category (services / goods /works) | : | Works |
| **6** | Type of Contract (work / supply / auction / service / buy / empanelment / sell) | : | Work |
| **7** | Form of contract (IITK-7/8) | : | IITK-7 |
| **8** | Work Category Electrical | : | Electrical |
| **9** | Is multi-currency allowed? | : | No |
| **10** | Date of publishing / issue / start | : | As per CPP portal |
| **11** | Document download start date | : | As per CPP portal |
| **12** | Document download end date | : | As per CPP portal |
| **13** | Date & time of pre-bid meeting | : | As per CPP portal |
| **14** | Venue of pre-bid meeting | : | As per CPP portal |
| **15** | Last date & time of uploading of bids | : | As per CPP portal |
| **16** | Date & time of opening of Technical bids | : | As per CPP portal |
| **17** | Bid Validity Days | : | 90 days after opening of technical bid |
| **18** | Earnest Money Deposit (EMD) | : | Rs. 1,16,699/-. Scanned copy of the proof of EMD deposition to be uploaded with the tender. The hardcopy of the EMD receipt shall be submitted in the office of Executive Engineer IWD IIT Kanpur |

| | | | |
|---|---|---|---|
| **19** | Non- Refundable Processing Fee (Inclusive of GST @18%) as given in section 5.2 | | Rs. 20000/-for Non MSME/NSIC/Startup and Rs. 10000/-for MSME/NSIC/Startup to The Registrar, Indian Institute of Technology Kanpur. The proof of submission must be uploaded along with transaction slip with due mention of NIT No. in the CPP portal for valid tender submission as per format given in section 5.1 |
| **20** | No. of Bids / Covers (1 / 2 / 3 / 4) | : | 2 |
| **21** | Address for communication | : | Office of Superintending Engineer- Indian Institute of Techno- logy Kanpur, Kanpur, U.P. Pin - 208016 |
| **22** | e-mail address | : | rakeshkv@iitk.ac.in, kesav@iitk.ac.in |

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.

1. Information and instructions for bidders posted on website shall form part of bid document.
2. The bid document consisting of drawings, specifications, schedule of quantities of items to be executed, schedule of stages for payment as applicable and the set of terms & conditions of the contract to be complied with and other necessary documents can be seen and downloaded free of cost from www.eprocure.gov.in
3. But the bid can only be submitted after deposition of e processing fee and proof of submission of EMD.
4. Those contractors not registered on the website mentioned above, are required to get registered beforehand. Only e-bids shall be accepted on website CPP portal through e-tendering processes.
5. The intending bidder must have valid Class-III digital signature to submit the bid.
6. On opening date, the contractor can login and see the bid opening process. After opening of bids, he will receive the competitor bid sheets.
7. Contractor can upload documents in the form of JPG format and PDF format.
8. Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in pink colour and the moment rate is entered, it turns sky blue.

   In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).

However, 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 or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

9. The "Eligibility/technical Bid" shall be opened first on due date and time as per the evaluation scheme. The "Financial Bid" of bidders qualifying the technical bid shall be opened on a later date as to be announced in CPP portal.
10. The bidders are advised to visit the site before submission of bids to have more clarity about the site conditions and availability of space for execution of the work.
11. All modifications/addendums/corrigendum issued regarding this bidding process shall be uploaded on website only.
12. The department reserves the right to reject any or all bids without assigning any reason thereof and may restrict the list of qualified bidders to any number deemed suitable by it, if too many bids are received satisfying the minimum laid down criteria.
13. The rates for all items of work, shall unless clearly specified otherwise, include cost of all operations and all inputs of labour, material, T&P, scaffolding, wastages, watch and ward, other inputs, all incidental charges, all taxes, cess, duties, levies, etc. exclusive of GST required for execution of the work.
14. If the work involves addition/upgradation/alteration/renovation the work shall be in compliance with 3 Star GRIHA rating and as per environmental policies of Institute. Nothing extra shall be payable on this account.
15. The enlistment of the contractors, if applicable, 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.
16. The description of the work is as follows: "**Supplying, Installation, Testing and Commissioning of 13 Passenger Lifts (2 Nos.) at Faculty Building of IIT Kanpur with Buy back option.**
17. The work is estimated to cost **Rs. 58,34,947/-**. However, this estimate given is mere approximation for guide.
18. Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD 7 which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
19. The time allowed for carrying out the entire work will be Three (03) 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 as detailed in special conditions of contract in the bid document.
20. The sites for the work will be handed over as per the special terms and conditions of the document.

21. An approved programme of completion submitted by the contractor after award of work based on the available / to be available works for addition/alteration/upgradation.

22. The bid document consisting of NIT, 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.eprocure.gov.in free of cost.

23. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.

24. 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.

25. Earnest Money Deposit receipt scanned copy shall be uploaded to the e-Tendering website within period of submission.

26. Earnest money can be paid in the form of Treasury Challan or Demand Draft or Pay order or Banker's cheque or Deposit at call receipt or Fixed Deposit Receipt drawn in favor of Director IIT Kanpur along with Bank Guarantee of any Scheduled Bank where applicable.

    A part of earnest money is acceptable in the form of bank guarantee also in such case 50% of earnest money or Rs. 20 lacs, whichever is less, will have to be deposited in shape prescribed above and balance in shape of Bank Guarantee of any scheduled bank.

27. The receipt of e-processing fee shall also be uploaded to the e-tendering website by the intending bidder up to the specified bid. The Details of Institute Account for submitting e-processing fees is given in 5.1 under Section Various Forms and Formats.

28. Copy of Enlistment Order and other documents as specified in the bid shall be scanned and uploaded to the e-tendering website within the period of bid submission.

29. The bid submitted shall be opened at as per the details provided in the CPP portal at IWD office. The date of opening of Financial Bid shall be informed through web site after the opening of technical bid.

30. The bid submitted shall become invalid and e- processing fee shall not be refunded if:

    (i) The bidder is found ineligible.

    (ii) The bidder does not upload scanned copies of all the documents stipulated in the bid document.

    (iii) 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 or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

31. The contractor whose bid is accepted will be required to furnish performance guarantee of 5% of tendered value within the period specified in Schedule F. This guarantee shall be in the form of 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 of any scheduled bank (in case guarantee amount is less than Rs. 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.

32. 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 contractor shall be suspended for two years and shall not be eligible to bid for IITK tenders from the date of issue of suspension order.

33. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. If applicable and also ensure the compliance of afore said provisions by the sub-contractors, if any engaged by the contractor for the said work and program chart (Time and Progress) within the period specified in Schedule 'F'.

34. Intending Bidders are advised to inspect and examine the sites 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, making proper arrangements to the site for smooth operation, 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. Bidder shall be deemed to have full knowledge of the sites whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. **The bidder 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 Institute and local conditions and other factors having a bearing on the execution of the work.

35. Intending Bidders are advised to get familiarized with the specifications /rules related (i.e., **Supplying, Installation, Testing and Commissioning of 13 Passenger Lifts (2 Nos.) at Faculty Building of IIT Kanpur with Buy back option** to the work as approved by the competent authority and various policies related to c&d waste and other environmental guidelines of the institute pertaining to the. Bidder shall be deemed to have full knowledge of such rules and regulations whether he has read it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. In case of reduction of scope of work or no work is possible to carry out on account of such issues, no cost shall be payable to them. Submission of a bid by the bidder implies that he has read this notice and all other documents and has made himself aware of the Institute Regulations and other factors having a bearing on the execution of the work.

36. The competent authority on behalf of the Board of Governors 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 assigning any reason. Bids in which any of the prescribed conditions is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.

37. Canvassing whether directly or indirectly, in connection with bids is strictly prohibited and the bids submitted by the bidders who resort to canvassing will be liable to rejection.

38. The competent authority on behalf of the Board of Governors 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.

39. The contractor shall not be permitted to bid for works in the Office of Infrastructure and Planning / Institute Works Department responsible for award and execution of contracts, in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive) in IWD and Office of Infrastructure and Planning. 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 gazetted officer in the Office of Infrastructure and Planning/ Institute Works Department. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.

40. 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 canceled 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.

41. The bids for the work shall remain open for acceptance for a period of Ninety (90) days from the date of opening of bids. If any bidder withdraws his bid before the said period or issue 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 Institute shall, without prejudice to any other right or remedy, be at liberty to suspend the bidder for one year

42. This notice inviting Bid shall form a part of the contract document. The successful bidders/contractor, on acceptance of his bid by the Accepting Authority shall within 7 days from the stipulated date of start of the work, sign the contract consisting of 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 invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto

43. Standard C.P.W.D. Form 7 or other Standard C.P.W.D. Form as applicable.

44. The bid document will include the following components:

    (a) CPWD-7 and CPWD-6 including Schedule A to F for all the components of the work, Standard General Conditions of Contract for CPWD 2023 as amended/modified up to last date of submission of the bid.

    (b) General / specific conditions, specifications applicable to all components of the work.

45. After acceptance of the bid by competent authority, Executive Engineer issue letter of award on behalf of the Board of Governors to the contractor. After the work is awarded, the contractor will have to enter into one agreement with Executive Engineer. One such signed set of agreement shall be handed over to Engineer-In- Charge.

46. The requirement of technical staff given in various specialized works is as per requirements given in clause 32 of NIT document. The actual deployment of these technical staff will be as per execution of work and direction of the Executive Engineer, IITK. **In case of non-deployment, a penalty of Rs. 25,000/- per month shall be levied from the** contractor.

Payment shall be regulated as under

(a) 75% of the tendered value on receipt of all materials listed in BOQ at site be submitted to claim the payment)

(b) 15% of the tendered value on installation and connection.

(c) 10% of the tendered value on testing and commissioning.

47. Running bill and final bill for components shall be facilitated by Engineer-in-Charge to the contractor.

48. The work shall be treated as complete when all the components of the work are complete.

49. It will be obligatory on the part of bidder to sign the contract document for all components before the first payment is released.

50. In case of reduction in scope of work no claim on account of reduction in value of work, loss of expected profit, consequential overheads etc. shall be entertained.

51. A team of officers from Indian Institute of Technology Kanpur may visit the office/ site of work of bidders for establishing their credibility and verification of submitted documents.

52. The work is urgent as requested by client/Institute and to be completed strictly in given time schedule as per special terms and conditions. The contractor has to deploy the labour and supervisory staff in shifts to meet the targeted completion date. The work may be executed in extended shifts or two shifts. The rates quoted by the contractor will be deemed to be inclusive of any extra expenditures on account of this reason. Nothing shall be paid on this account.

53. The contractor/ agency must have to co-operate with any other agency deployed by IIT Kanpur for laying of cables and other works for the agency has to make itself available and provide full co-operation during installation, if required.

54. The competent authority on behalf of the Board of Governors reserves the right to terminate the contract if,

**(a) Any violation of labour law has been observed.**

**(b) Any of the construction workers engaged in the works under this contract is found also engaged in Service Contracts of the Institute at the same time.**

55. The competent authority on behalf of the Board of Governors reserves the right to disqualify an agency for

**(a) Non-compliance of Institute orders**

**(b) Violation of Institute policies as established by the Competent Authority in the best interests of the Institute.**

## 2.2 Instructions for Online BID Submission

This tender document has been published on the Central Public Procurement Portal (URL: http://eprocure.gov.in/eprocure/app). The bidders are required to submit soft-copies of their bids electronically on the CPP portal, using valid Digital Signature Certificates (DSC). The instructions given below are meant to assist the bidders in registering on the CPP portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP portal.

More information useful for submitting online bids on the CPP portal may be obtained at http://eprocure.gov.in/eprocure/app

### 2.2.1 Registration

1. Bidders are required to enroll on the e-procurement module of the Central Public Procurement portal (URL:http://eprocure.gov.in/eprocure/app) by clicking on the link, "click here to enroll". Enrolment on the CPP portal is free of charge
2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for the accounts.
3. Bidders are advised to register their valid e-mail address and mobile number as part of the registration process. These would be used for any communication from the CPP portal.
4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (class 2 or class 3 certificates with signing key usage) issued by any certifying authority recognized by CCA India (e.g. Sify / TCS / nCode/ eMudhra etc.) with their profile.
5. Only one valid DSC should be registered by a bidder. Please note that bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
6. Bidder then logs in to the site through the secured log-in by entering their user ID Password and the password of the DSC / eToken.

### 2.2.2 Searching for tender documents

1. There are various search options built in the CPP portal to facilitate bidders to search active tenders by several parameters. These parameters could include tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP portal.
2. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. The tenders can be moved to the respective "My Tenders" folder. This would enable the CPP portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
3. The bidder should make a note of the unique Tender ID assigned to each other; in case they want to obtain any clarification/help from the Helpdesk.

### 2.2.3 Preparation of bids

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bids. Please note the number of covers in which the bid documents have to be submitted. Any deviations from these may lead to rejection of the bids.
3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black &white option.
4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g., PAN card copy, annual reports, auditor's certificates, etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

### 2.2.4 Submission of bids

1. Bidder should log into the site well in advance for bid submission so that he / she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
3. Bidder has to select the payment option as "on-line" to pay the tender processing fee as applicable and enter details of the instrument
4. A standard BOQ Format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to

download the BOQ file, open it and complete the white colored [unprotected] cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

OR

In some cases, financial bids can be submitted in PDF format as well (in lieu of BOQ).

5. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
6. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done.
7. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
8. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date &time of submission of the bid with all other relevant details.
9. Add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

### 2.2.5 Assistance to bidders

1. Any queries relating to tender document and the terms and conditions contained therein should be addressed to the tender inviting authority for a tender or the relevant contact person indicated in the tender.
2. Any queries relating to the process of online bid submission or queries relating to CPP portal in general may be directed to the 24 x 7 CPP Portal Help Desk.

### 2.2.6 General instruction to bidders

1. The tenders will be received online through portal https://eprocure.gov.in/eprocure/app. In the technical bids, the bidders are required to upload all the documents in PDF format.
2. Possession of a valid class II / III Digital Signature Certificate (DSC) in the form of smart card / e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through https://eprocure.gov.in/eprocure/app. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the websitehttps://eprocure.gov.in/eprocure/appunder the link "Information about DSC".

Tenderers are advised to follow the instructions provided in the "Instructions to the tenderer" for the e-submission of the bids online through the Central Public Procurement Portal for e-procurement athttps://eprocure.gov.in/eprocure/app.

Superintending Engineer
Institute Works Department

## 2.3 List of documents to be scanned and uploaded within the period of bid submission

The following mandatory documents to be submitted with online bid submission:

The Online bids (complete in all respect) must be uploaded online in two Envelops as explained here: -

### 2.3.1 Envelope - 1: Technical Bid

The following mandatory documents to be provided as **a single PDF** file in the same sequence as listed for evaluation:

1. Bidder must be original equipment manufacturer (OEM).
2. An undertaking on OEM letter head regarding availability of spares for the entire life of the lift.
3. Certificate on OEM letter head that the complete Lift installation including its components, safety device, various types of controls etc., testing, inspection, operation & maintenance shall confirm to relevant Codes / Standard /Code of practices / Guidelines / Safety Rules / Inspection Manual (s) / Rule issued by Bureau of Indian Standards, as amended upto date.
4. Scanned copy of EMD as a proof of submission.
5. Proof of submission of Processing Fees as per 5.1
6. GST Registration Certificate or GST Undertaking as per 5.2
7. EPF & ESI Registration
8. Copy of PAN card
9. Affidavit for not being blacklisted/debarred/restrained As per 5.3
10. Turnover and Other Financial statement of the Agency as per 5.4
11. Solvency certificate as per 5.5 **Or** Net Worth Certificate from certified Chartered Accountant as per 5.6
12. Performance report of works executed as per 5.7
13. Structure and Organization of the Agency as per 5.8
14. Declaration on Details of the Bidder(s) as per 5.9
15. Details of Similar Nature of Works Completed as per 5.10
16. Declaration about Site Inspection as per 5.11
17. Letter of Transmittal as per 5.12
18. Tender Acceptance Letter 5.13
19. Certificate for tender as per 5.14
20. CPWD-7 5.15
21. Technical Datasheets: The bidder's proposed equipment's technical parameters/specification shall be matching with the required parameters/specifications by IIT Kanpur as per the Technical Datasheet for Passenger Elevator specified of the Tender Document. 5.16

The hard copy of earnest money deposit receipt (EMD) shall be submitted in the office of Executive Engineer Elect . IWD IIT Kanpur before the opening of the technical bid on **20.02.2025** till 3:00

PM. In absence of the EMD in hardcopy, the bidder shall be not eligible for opening of their technical bid and shall be rejected.

### 2.3.2 Envelope - 2: Financial Bid

Price bid should be submitted in BOQ format

# 3 Eligibility Criteria

## 3.1 Eligibility criteria for contractors

Contractors who fulfill the following criteria shall be eligible to apply.

**Eligible Bidders**
Eligible bidders should satisfy the following criteria for an eligible bid:

1. **Average annual financial turn over:**

   i. Average annual financial turnover of works should be at least 30% of the estimated cost of work put to tender during the last 3 consecutive financial years by the certified Chartered Accountant.

   Audited turnover statements to be furnished as proof of the same duly certified by chartered accountant along with Profit & Loss Statements.

   ii. Solvency Certificate- 30% of the estimated cost put to tender **Or** Net Worth Certificate from certified Chartered Accountant as per 5.6

2. **Experience (value of work done shall be within a span of one year):**

   Firms/Contractors must have completed satisfactorily
   i) One similar work of 80% value of the estimated cost put to tender
   Or
   ii) Two similar work of 60% value of the estimated cost put to tender
   or
   iii) Three similar work of 40% value of the estimated cost put to tender
   Works completed during last 7 years ending on date 18.02.2025
   And

One Completed work of similar nature costing not less than the amount equal to 40% of the estimated cost put to tender with Central Government Department / Central Autonomous Body/ Central Public Sector Undertaking / State Government Department**.**

**Definition of similar work:** Similar type of work means "**supply, installation, testing & commissioning of passenger Elevators(lifts)/Freight Elevators(lifts) for multistoried buildings with at least 6 no. of landings**." done with any Central Government Department / Central Autonomous Body / Central Public Sector Undertakings /State Government/ Establishment of repute in last 7 years.

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 previous day of last date of submission of bids.

**Eligible bidders must also satisfy the following conditions and ensure submission of all documents mentioned in 2.3.**

1. **Legal:** Unregistered Partnership Firm and Joint Venture or Consortium are not eligible.
2. **Registration:** Bidder should be registered with the Income Tax Department, Employees Provident Fund (EPF) Organization, Employees State Insurance (ESI) Corporation & GST. Bidders are not eligible in absence of these documents.
3. **Office:**

   Bidders have to establish its local accessible office at IIT Kanpur registered with local GSTIN to run the awarded work.

# 4 Bid Evaluation

The following process will be followed for the Technical and Financial Bids Evaluation:

## 4.1 Technical Bid Evaluation

- Technical bids received complete in all respects covering the entire scope of work, will only be opened
- The technical bid evaluation is done only for bidders who satisfy the minimum criteria by submitting documentary proof supporting eligibility criteria and the bids of agencies who have not submitted these documents are liable to be rejected without notice.

## 4.2 Financial Bid Evaluation

For financial bids, the following points shall be followed:

- After evaluation of Pre-eligibility conditions, a list of short listed agencies will be prepared.
- Thereafter the financial bids of only the qualified and technically acceptable bidders shall be opened at the notified time, date and place in the presence of the qualified bidders or their representatives, if present.
- The bid shall remain valid for Ninety (90) days from date of opening of eligibility bids/Technical bid.

**NOTE**

The employer reserves the right, without being liable for any damages or obligation to inform the bidder, to:

- Amend the scope and value of contract to the bidder.
- Reject any or all the applications without assigning any reason.

Any effort on the part of the bidder or his agent to exercise influence or to pressurize the employer would result in rejection of his bid. Canvassing of any kind is prohibited.

# 5 Various Forms and Formats

## 5.1 Format for submission of processing fees

**Format for proof of submission to be uploaded along with transaction slip**
(Scanned copy of this page to be uploaded at the time of submission of bid)

I/we have submitted the processing fess as per the following details:

| | | |
|---|---|---|
| NIT No | : | 60/EE/Elect/2024-25 |
| Name of Agency | : | |
| GST number of Agency | : | |
| Date of transaction | : | |
| Total amount transferred | : | |
| UTR number | : | |

.....
Signature of the Bidder(s)

Details of Institute Account for submitting processing fees are as follows:

Beneficiary Name: The Registrar, IIT Kanpur
Bank Name: SBI, IIT Kanpur
Account Number: 30632766814
IFSC Code: SBIN0001161

## 5.2 Undertaking regarding obtaining GST registration

**Proforma for Undertaking regarding obtaining GST registration Certificate of The State in which work is to be taken up**

(Undertaking to be furnished on a 'Non-Judicial' stamp paper worth Rs.100/)
(Scanned copy of this notarized undertaking to be uploaded at the time of submission of bid, if required)

If work is awarded to me, I/we shall obtain GST registration Certificate of the State, in which work is to be taken up within one month from the date of receipt of award letter or before release of any payment by IITK, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on a/c of the work executed and/or for any action taken by IITK or GST department in this regard.

.....
(Signature of Bidder(s))

**Or**

.....
(An authorized Officer of the firm with stamp)

.....
(Signature of Notary with seal)

## 5.3 Affidavit for not being blacklisted/debarred/restrained

**Proforma for AFFIDAVIT for not being blacklisted/debarred/restrained**
(AFFIDAVIT to be submitted on a 'Non-Judicial' stamp paper worth Rs.100/)
(Scanned copy of this notarized affidavit to be uploaded at the time of submission of bid)

I/we undertake and confirm that our firm/partnership firm has not been blacklisted and/or debarred/restrained by any Central Govt./ State Govt. Agency/ Autonomous body of the Central or State govt./ PSU etc. Further that, if such information comes to the notice of the Institute, then I/we shall be debarred for bidding in the Institute in future forever. Also, if such information comes to the notice of the Institute on any day before date of start of work, the competent authority shall be free to cancel the agreement and to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

.....
(Signature of Bidder(s))

**Or**

.....
(An authorized Officer of the firm with stamp)

.....
(Signature of Notary with seal)

## 5.4 Financial Information

**Proforma for providing Financial Information**

(Scanned copy of the completed information sheet to be uploaded at the time of submission of bid)

Financial Analysis: Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last three financial years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached).

| **Financial Years** | 2021-22 | 2022-23 | 2023-24 |
|---|---|---|---|
| **Gross Annual turnover** | | | |
| **Profit/Loss** | | | |

.....

Signature of Chartered Accountant with Seal

.....

Signature of the bidders(s)

## 5.5 Banker's Certificate from a scheduled Bank

**Proforma of Banker's Certificate from a Scheduled Bank**
(To be printed in Bank's Letterhead)
(Scanned copy of the Certificate to be uploaded at the time of submission of bid)

This is to certify that to the best of our knowledge and information that M/s. /Sh..... having marginally noted address, a customer of our bank are/is respectable and can be treated as good for any engagement up to a limit of Rs ..... (Rupees ..... ). This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

.....
(Signature for the Bank)

NOTE:

1. Bankers certificates should be on letter head of the Bank, addressed to tendering authority.
2. In case of partnership firm, certificate should include names of all partners as recorded with the Bank.

## 5.6 Net Worth Certificate by certified Chartered Accountant

**Proforma of Net Worth Certificate by certified Chartered Accountant**
(To be printed in Letterhead of Chartered Accountant)
(Scanned copy of the Certificate to be uploaded at the time of submission of bid)

This is to certify that as per the audited Balance Sheet and Profit & Loss statement of the account during the financial year ....., the net worth of M/s./Sh.....(Name & Registered Address of individual/firm/company) as on 31.3.2024 is Rs.....(Rupees. .....) after considering all liabilities.. It is further certified that the net worth of the company has not eroded by more than 30% in the last three years ending on 31.3.2024.

.....
(Signature of the Chartered Accountant)

.....
(Name of the Chartered Accountant)

.....
(Membership No. of ICAI)

.....
(Date & Seal)

## 5.7 Performance report on work executed

**Proforma of Performance report on works referred to in Financial Information**
(To be printed in Company's Letterhead)
(Scanned copy of the Performance Reports to be uploaded at the time of submission of bid)

1. Name of work/project & location:
2. Agreement no.:
3. Estimated cost:
4. Tendered cost:
5. Date of start:
6. Date of completion:
7. Stipulated date of completion:
8. Actual date of completion:
9. Amount of compensation levied for delayed completion, if any:
10. Amount of reduced rate items, if any:
11. Performance Report:

    (a) Quality of work: Outstanding / Very Good / Good /Poor
    (b) Technical Proficiency: Outstanding / Very Good / Good /Poor
    (c) Resourcefulness: Outstanding / Very Good / Good /Poor
    (d) General Behavior: Outstanding / Very Good / Good /Poor

Date: Signature of Superintending Engineer or Equivalent

## 5.8 Structure and Organization of the Agency

**Proforma of providing Structure and Organization of the Bidding Agency**
(To be printed in Company's Letterhead)
(Scanned copy of the Structure and Organization Document to be uploaded at the time of submission of bid)

1. Name & address of the bidder:
2. Telephone no./Telex no./Fax no.:
3. Email address for Communication:
4. Legal status of the bidder (attach copies of original document defining the legal status):
   (a) An Individual:
   (b) A proprietary firm:
   (c) A firm in partnership:
   (d) A limited company or Corporation:
5. Particulars of registration with various Government Bodies (attach attested photocopy)

   **Organization / Place of registration, Registration No.**

   1.
   2.
   3.
6. Names and titles of Directors & Officers with designation to be concerned with this work.
7. Designation of individuals authorized to act for the organization
8. Has the bidder, or any constituent partner in case of partnership firm, ever been convicted by the court of law? If so, give details.
9. Any other information considered necessary but not included above.

(Signature of of Bidder(s))

## 5.9 Declaration on Details of the Bidders

**Proforma of Declaration on Details of the Bidders**

(To be printed in Company's Letterhead)

(Scanned copy of the Performance Reports to be uploaded at the time of submission of bid)

**DECLARATION**

I/We, .....hereby declare that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I/we have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

Particulars of the bidder as per following details:

| | | | |
|---|---|---|---|
| 1 | Name of the firm / organization | : | |
| 2 | Type of the firm / organization: Public Ltd. / Private Ltd. / Registered firm | : | |
| 3 | Registered address | : | |
| 4 | Address of office | : | |
| 5 | Contact people | : | |
| 6 | Name & Designation | : | |
| 7 | Landline & Mobile numbers | : | |
| 8 | E-mail IDs | : | |
| 9 | PAN No. | : | |
| 10 | GST No. | : | |
| 11 | EPFO Reg. No. | : | |
| 12 | ESIC Reg. No. | : | |
| 13 | Annual Turnover for the last 3 years (Enclose copies of audited balance sheet and P&L A/c.) | | |
| 13.1 | 2023-2024 | : | |
| 13.2 | 2022-2023 | : | |
| 13.3 | 2021-2022 | : | |
| 14 | Copy of EMD receipt with signature | : | |
| 15 | Has the applicant ever been required to suspend any project for a period of more than six months continuously after Commencement of work? | : | If so, give the name of the project and reasons of suspension of project |

| | | | |
|---|---|---|---|
| 16 | Has the applicant ever been convicted by a court of law? | : | YES / NO ,If yes, give details of the case |
| 17 | Details of any litigation in which the applicant is/was involved. | : | |
| 18 | All forms submitted as desired in the bid | : | Yes / No |
| 19 | Undertaking regarding subletting of work | : | |

We further declare that our organization has not been blacklisted /delisted or put to any holiday by any Institutional agency / Govt. Department / Public Sector Undertaking in the last three years.

Date: Signature of Bidder(s) with seal

## 5.10 Details of Similar Nature of Works Completed by Agency

**Proforma for submission of Details of Eligible Similar Nature of Works Completed* during the Last Seven Years ending previous day of the last date of submission of tenders**

The contractor needs to submit the supporting documents in the following tabular format:

| Sr.No. | Name of work/project and location | Owner or sponsoring organization | Cost of work in in crores of rupees | Date of commencement as per contract | Stipulated date of completion | Actual date of completion | Litigation / arbitration cases pending / in progress with details* | Name and address/ telephone number of officers to whom reference maybe made | Whether the work was done on back to back basis Yes / No |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | | | | | | | | | |

Date: Signature(s) of with seal

## 5.11 Declaration About Site Inspection

**Declaration about Site Inspection**

(By Bidder)

To

The Superintending Engineer

Subject: Submission of Tender for the work of "**Supplying, Installation, Testing & Commissioning of 13 passenger Lifts (2 Nos.) at Faculty Building of IIT Kanpur with buy back option.**

Dear Sir/Madam,

It is hereby declared that as per terms and conditions of this tender document, I/ We the bidder inspected and examined the subject site and its surrounding and satisfy myself / ourselves as to the nature of the ground and sub-soil (so far as is practicable), the forms and nature of the site./ ourselves before submitting the bid, the accommodation which may require and all necessary information as to risks, contingencies and other circumstances which may influence or affect our bid have been obtained. I/We the bidder shall have full knowledge of the site and no extra charge consequent upon any misunderstanding or otherwise shall be claimed in later date. I /We bidder shall be responsible for arranging and maintaining at 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 me/us implies that I / We have read this notice and all other contract documents and has made myself /ourselves aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of the work.

Sincerely

(Duly authorized signatory of the Bidder)

## 5.12 Letter of Transmittal

To

The Superintending Engineer
Indian Institute of Technology Kanpur
Kanpur, UP - 208016

Name of Work **Supplying, Installation, Testing & Commissioning of 13 passenger Lifts (2 Nos.) at Faculty Building of IIT Kanpur with buy back option.**

Dear Sir/Madam

Having examined details given in Notice and bid document for the above work, I/we hereby submit the relevant information.

1. I/We hereby certify that all the statements made and information supplied in the enclosed forms and accompanying statement are true and correct.
2. I/we have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/We also authorize the Executive Engineer, Indian Institute of Technology Kanpur or his representative(s) to approach individuals, employers, firms and corporation to verify our competence, work experience, and general reputation.
4. I/we submit the following certificates in support of our suitability, technical knowledge and capability for having successfully completed the following eligible completed works:

| Sl. No. | Name of work | Amount | Certificate issued by |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |

**CERTIFICATE**

It is certified that the information given in the enclosed eligibility bid are correct. It is also certified that I/We shall be liable to be debarred, disqualified/ cancelation of enlistment in case any information furnished by me/us found to be incorrect.

Enclosures:

Date of submission: Signature(s) of Bidder with seal

## 5.13 Tender Acceptance Letter

(To be given on Company Letter Head)

To,
Superintending Engineer
IIT Kanpur-208016

Sub: Acceptance of Terms & Conditions of Tender. Tender Reference No: Date:

.....

Name of Tender / Work: .....

Dear Sir,

**5.13.1** I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely: ..... as per your advertisement, given in the above mentioned website(s).

**5.13.2** I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No..... to (including all documents like annexure(s), schedule(s), etc .,), which form part of the contract agreement and I / weshall abide hereby by the terms / conditions / clauses contained therein.

**5.13.3** The corrigendum(s) issued from time to time by your department/ organization too have also been taken into consideration, while submitting this acceptance letter.

**5.13.4** I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

**5.13.5** I / We do hereby declare that our Firm has not been blacklisted/ debarred/ terminated/ banned by any Govt. Department/Public sector undertaking.

**5.13.6** I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

(Signature of the Bidder, with Official Seal)

## 5.14 Certificate for Tender

(To be given on Company Letter Head)

Date: .....

To,
Superintending Engineer
IIT Kanpur-208016

Sub: Certificate of compliance as per Rule 144 (xi) GFR's

2017Tender Reference No:

.....

Name of Tender / Work: .....

1. "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"
2. "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work toa contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all the requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by theCompetent Authority shall be attached.]"

(Signature of the Bidder, with Official Seal)

Yours Faithfully,

## 5.15 CPWD-7

# CPWD-7

## PERCENTAGE RATE TENDER & CONTRACT FOR WORKS

Tender for the "**Supplying, Installation, Testing & Commissioning of 13 passenger Lifts (2 Nos.) at Faculty Building of IIT Kanpur with buyback option**"

1. To be uploaded as per details uploaded in CPP portal at www.eprocure.gov
2. To be opened in the presence of tenderers who may be present at the time of opening in the Office of Executive Engineer, IIT Kanpur.
3. The pre-qualification/Technical bid shall be opened first on due date and time as mentioned above. The time and date of opening of financial bid of contractors qualifying the technical bid shall be communicated to them at a later date.

### TENDER

((To be signed in Company's Letterhead)

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, General Conditions of Contract (For construction works) 2023, CPWD SOP 2024 corrected up to the last date of bid submission, CPWD works manual 2024 corrected up to the last date of bid submission and 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 Board of Governors 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 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 Ninety (90) days from the due date of its opening and not to make any modification in its terms and conditions.

If I/we, fail to furnish the prescribed performance guarantee or fail to commence the work within prescribed period, I/ we agree that the said Board of Governors, IIT Kanpur or his successors in office shall without prejudice to any other right or remedy to be at liberty to forfeit the said earnest money absolutely. Further, if I/we fail of commence the work as specified , I/we agree that Board of Governors , IIT Kanpur or his successor in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to the tender documents upon the terms & condition contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned in schedule '"F" and those in excess of that limit at the rates to be determined in accordance with the provision contained in clause 12.2 and 12.3 of the tender form.

Further, If I/we, withdraws tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department after the last date of submission of bids, then the Institute shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

Further, I/we agree that in case of forfeiture of earnest money or both earnest money & performance guarantee as aforesaid, I/we shall be debarred for participation in the retendering process of the work.

**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 Indian Institute of Technology Kanpur in future forever. Also, if such a violation comes to the notice of Indian Institute of Technology Kanpur before date of start of work, the Superintending Engineer shall be free to forfeit the entire amount of 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 & integrity of IIT Kanpur

Date: Signature(s) of Contractor(s) with seal

Address:

Occupation:

**5.16**

## Technical Specification for Passenger Lift

| S. No. | Features | Technical Detail | Bidder response: Confirm/Specify the details |
|---|---|---|---|
| 1 | Number of passengers: | 13 Passenger | |
| 2 | Rated speed (m/sec) | 01 M/Sec. | |
| 3 | Rated capacity (kg) | 884 kgs (for 13 passenger) | |
| 4 | Entrance: 06 floors( G+5) | 06 floors( G+5) | |
| 5 | Interior: Hairline finish Stainless Steel 304(1.5mm) | Hairline finish Stainless Steel 304(1.5mm) | |
| 6 | Flooring: Granite Flooring with slip-resistant (color shall be as per Institute approval) | Granite Flooring with slip-resistant (color shall be as per Institute approval) | |
| 7 | Light & Fan: LED light & Cross flow fan with grill | LED light & Cross flow fan with grill | |
| 8 | Hall position indicators and buttons: Segment LED Indicators, Tactile button along with additional Braille inscriptions | Segment LED Indicators, Tactile button along with additional Braille inscriptions | |
| 9 | Floor: 1,2,3,4,5,6 | 1,2,3,4,5,6 | |
| 10 | Handrail system: SS Slip- resistant with round end Hand railing one side at rear wall shall be able to bear a weight of minimum 250kg. | SS Slip- resistant with round end Hand railing one side at rear wall shall be able to bear a weight of minimum 250kg. | |
| 11 | Travel: | As per site. | |
| 12 | Stops & Opening: 06 floors( G+5), In front only. | 06 floors ( G+5), In front only. | |
| 13 | Lift well size: 2450mm(W)x1840mm(D)(without plaster) | 2450mm(W)x1840mm(D)(without plaster) | |
| 14 | Car size: | 1500mm(W)x1400mm(D)x2200mm(H) [Car size as per present site condition & approval by EIC] | |
| 15 | Clear opening of doors: | 900mm(W)x2000mm(H) | |
| 16 | Ventilation: | As per manufacturer | |

| | | | |
|---|---|---|---|
| 17 | Operation: | Microprocessor based duplex Collective Selective Control with/without Attendant. | |
| 18 | Power Supply: | 415 Volts ± 10%, 3 Phase, 30 A, 50 Hz AC systems. | |
| 19 | Controller type: | V3F (Variable Voltage Variable Frequency) | |
| 20 | Type of Machine: | Gearless / Machine Room less. | |
| 21 | Car Enclosure | Stainless street 304 (1.5 mm) scratches proof (Hairline Finish) on all side | |
| 22 | Enclosure for Car door & Landing door: | Power operated centre opening glass of size 300 x 1700 door with stainless steel 304(1.5mm) hairline finish FIRE RATED door. | |
| 23 | Indicators (Car Landing): | Digital Direction & Position Indicator | |
| 24 | Type of Doors:-(Car: Fire rated upto 120mins Centre Opening) Landing door : FIRE RATED Glass with SS hairline finish enveloped door. | FIRE RATED Glass with SS hairline finish enveloped door. | |
| 25 | Construction type: | Machine Room less | |
| 26 | Emergency Car Lighting: | Car lighting which turns on immediately when power fails, providing a minimum level of lighting within the car. | |
| 27 | Fire Emergency Return: | Upon activation of a key switch or a building's fire alarm, all calls are canceled, cars immediately return to a specified evacuation floor and the doors open to facilitate the safe evacuation of passengers. | |
| 28 | Emergency Landing Device (Automatic rescue Device) with audio announcer: | Upon power failure, a car equipped with this function automatically moves and stops at the nearest floor using a rechargeable battery, and the doors open to facilitate the safe evacuation of passengers with audio announcer. Dry type Battery (Maintenance Free) should be used for power backup. | |
| 29 | Automatic Door Speed Control: | Door load on each floor, which can depend on the type of hall doors, is monitored to adjust the door speed, thereby making the door speed consistent throughout all floors. | |
| 30 | Door Load Detector: | When excessive door load has been detected while opening or closing, the doors Door Load Detector immediately reverse. | |
| 31 | Door Nudging Feature | With Buzzer: A buzzer sounds and the doors slowly close when they have remained open for longer than the preset period. | |
| 32 | Multi-beam Door Sensor: | Multiple infrared-light beams cover at least 2/3 of the door height of the doors to detect passengers or objects as the doors close. | |
| 33 | Reopen with Hall Button: | Closing doors can be reopened by pressing the hall button corresponding to the traveling direction of the car. | |

| | | | |
|---|---|---|---|
| 34 | Repeated Door-close: | Should an obstacle prevent the doors from closing, the doors will repeatedly open and close until the obstacle is cleared from the doorway. | |
| 35 | Safety Door Edge: | The sensitive door edge detects passengers or objects during door closing. | |
| 36 | Automatic Bypass: | A fully-loaded car bypasses hall calls in order to maintain maximum operational efficiency. | |
| 37 | Car Fan Shut Off — | Automatic: If there are no calls for a specified period, the car ventilation fan will automatically turn off to conserve energy. | |
| 38 | Car Light Shut Off — | Automatic: If there are no calls for a specified period, the car lighting will automatically turn off to Conserve energy. | |
| 39 | False Call Canceling | Automatic: If the number of registered car calls does not Correspond to the car load, all calls are canceled to avoid unnecessary stops. | |
| 40 | False Call Canceling | Car Button Type: If a wrong car button is pressed, it can be canceled by quickly pressing the same button again twice. | |
| 41 | Overload Holding Stop: | A buzzer sounds with over load indication to alert the passengers that the car is overloaded. The doors remain open and the car will not leave that floor until enough passengers exit the car. | |
| 42 | Safe Landing Service: | If a car has stopped between floors due to some equipment malfunction, the controller checks the cause, and if it is considered safe to move the car, the car will move to the nearest floor at a low speed and the doors will open. | |
| 43 | Basic Announcement Electronic: | A synthetic voice (and/or buzzer) alerts Passengers inside a car that elevator operation has been temporarily interrupted by overloading or a similar cause. (Should be in Hindi & English language.) | |
| 44 | LED Position Indicator: | LED / TFT Segmented Display for car operating panels shows the date and time, car position, travel direction and elevator status messages. | |
| 45 | Hall LCD / LED Position Indicator: | Display LCD / LED for elevator halls shows the date and time, car position, travel direction and elevator status messages. | |
| 46 | Provision of CCTV and connection with institute EPABX Telephone including wiring: | Yes | |
| 47 | Emergency intercom phone system incorporated on cabin operating panel and | Yes | |

| | | | |
|---|---|---|---|
| | Provision of Intercom including wiring with centralized features.: | | |
| 48 | Confirming to Quality Standard: | IS/ISO-9001:2015 | |
| 49 | Provision of Floor announcement with all time music: | Yes | |
| 50 | Provision of Single Phase/ phase failure sensing for ARD: | Yes | |
| 51 | Provision of auto-correction of Phase reversal: | Yes | |
| 52 | SS plate Safety instruction inside the car : | Yes | |
| 53 | Lift shall be accessible to person with disabilities: | Yes | |
| 54 | Over speed Governor : | Yes | |
| 55 | Counterweight screen: | Yes | |
| 56 | Provision for Fireman Switch: | Yes | |

(* The bidders have to specify the make of the lift.)

# 6 Proforma of Schedules

**PROFORMA OF SCHEDULES**

## 6.1 SCHEDULE 'A': Schedule of Quantities

Schedule of Quantities : BOQ uploaded separately

## 6.2 SCHEDULE 'B': Schedule of materials to be issued to the contractor

Schedule of materials to be issued to the contractor: NIL

## 6.3 SCHEDULE 'C': Tools and plants to be hired to the contractor

Tools and plants to be hired to the contractor: NIL

## 6.4 SCHEDULE 'D': Extra schedule for specific requirements/document for the work, if any

Extra schedule for specific requirements/document for the work, if any: NIL

## 6.5 SCHEDULE 'E': Reference to General Conditions of Contract

| | | |
|---|---|---|
| Reference to General Conditions of Contract | : | General Conditions of Contract 2020 for Construction Works & Maintenance work and as amended / modified up to the last date of sub- mission of Bid. |
| Name of Work | : | **Supplying, Installation, Testing & Commissioning of 13 passenger Lifts (2 Nos.) at Faculty Building of IIT Kanpur with buyback option.** |
| Total Estimated cost of work | : | **Rs. 58,34,947/-** |
| Earnest Money | : | **Rs. 1,16,699/-** |
| Performance Guarantee | : | 5% of tendered value |
| Security Deposit | : | 2.5% of tendered value will be deducted from each bill. Same would be released after successful completion of One year defect liability period and as per special conditions of the contract. |

## 6.6 SCHEDULE 'F': General Rules and Directions

**GENERAL RULES & DIRECTIONS:**

Officer Inviting tender: Executive Engineer

### 6.6.1 Definitions

| | | |
|---|---|---|
| 1 Inviting Authority | : | Superintending Engineer |
| 2(v) Engineer-in-Charge | : | Executive Engineer |
| (viii) Accepting Authority | : | DOIP/ SE |
| 2(x) Percentage on cost of materials and Labour to cover all overheads and profits | : | 15% |
| 2(xi) Standard Schedule of Rates | : | For Electrical Work: DSR (E&M), 2023 & MR with up-to-date correction slip |
| 2(xii) Department | : | Institute Works Department, IIT Kanpur |
| 9(ii) Standard CPWD Contract Form | : | General Conditions of Contract 2023, SOPs 2024, CPWD Works manual 2024, CPWD Form 7 as amended / modified up to the last date of submission of Bid. The following condition pertains to GST of clause 37 & 38 of General Condition of contract and corresponding Amendments should be read as follows: a- The Quoted rates should be exclusive of GST. b- The GST as applicable shall be paid extra. |

### 6.6.2 Clauses

| **Clause 1** | | |
|---|---|---|
| i. Time allowed for submission of Performance Guarantee, Programme Chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW wel- fare board or proof of applying thereof from the date of issue of the letter of acceptance | : | **7 days** |

| | | |
|---|---|---|
| ii. Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the Period provided in (i) above | : | **7 days** |
| **Clause 1A** | : | **Applicable. The Defect liability period shall be One year from the date of handing over of the assigned works to the user/Institute** |
| **Clause 2**<br>Authority for fixing compensation under Clause 2 | : | Dy. Director/Director, IIT Kanpur |
| **Clause 2A**<br>Whether Clause 2A shall be applicable | : | YES |
| **Clause 5** | : | |
| **(i)**: Number of days from the date of issue of letter of acceptance for reckoning date of start | : | 15 Days |
| **ii**: Milestones | : | Time allowed for execution of work along with the amount to be withheld in case of non-achievement of milestone are shown in Tables 6 |
| **Clause 6**: Computerized Measurement Bill | : | *Applicable* |
| **Clause 7** 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 | : | Not Applicable |
| **Clause 7A** | : | Applicable |
| **Clause 10A** | : | Applicable |
| **Clause 10B (ii)** | : | Not Applicable |
| **Clause 10B (iii)** | : | Not Applicable |
| **Clause 10C** | : | *Not Applicable* |
| **Clause 10CA** | : | *Not Applicable* |
| **Clause 10CC** | : | Not applicable |

| | | |
|---|---|---|
| **Clause 11** | : | CPWD Specification 2019 Vol. I &II, and latest CPWD specifications of all E&M items, with correction Slips issued up to the last date of receipt of tenders (herein called CPWD Specifications also) and as per NIT for E&M works. Specifications to be followed for execution of Civil work and E&M works |
| **Clause 12: Type of work** | : | Original Work |
| **Clause 12.2 & 12.3: Deviation limit beyond which clause 12.2 & 12.3 shall apply for Building work** | : | Not Applicable |
| **Clause 16 Competent Authority for deciding reduced rates: For Civil items and For Electrical items of work** | : | As per Table 7 |
| **Clause 17 - Defect liability period completion of contract whichever is later** | : | One year and those listed in Special Conditions of Contract |
| **Clause 18 - List of mandatory machinery, tools & plants to be deployed by the contractor at site** | : | As per the scope of the work |
| **Clause 32 - Requirement of Technical Representative(s)** | : | As per Table 9 |

*If the Contractor commits default in commencing the execution of the work as aforesaid, the performance guarantee shall be forfeited.*

Table 7: Authority to decide

| | | | |
|---|---|---|---|
| (i) | Extension of time (EOT) | : | Executive Engineer |
| (ii) | Rescheduling of milestones | : | Superintending Engineer, IIT Kanpur |
| (iii) | Shifting of date of start in case of delay in handing over of site | : | Superintending Engineer, IIT Kanpur |

Table 8: Materials for which all India Wholesale Price Index to be followed

| Sl.No | Material covered under this clause | Nearest Materials (other than cement, reinforcement bars and the structural steel) for which All India Wholesale Price Index to be followed | Base Price (without GST) of Materials, covered under clause 10 CA |
|---|---|---|---|
| 1 | Portland Pozzolana Cement (PPC)/ Ordinary Pozzolana Cement | Nil | Nil |
| 2 | Steel for Reinforcement TMT Fe 500D Primary Manufacturer | Nil | Nil |
| 3 | Structural Steel (Primary producers) | Nil | |

Table 9: Requirement of Technical staff for major + minor component(s), Clause 32

| Sl No. | Requirement of Technical staff (of major + minor component) | | Minimum experience in Year | Designation | Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 32 | |
|---|---|---|---|---|---|---|
| | Qualification (Of Major + Minor component) | Number | | | Figures | Words |
| 2 | Graduate Engineer (Minor component Or Diploma Engineer) | 1 | 5 years | Project Planning/ quality/ billing Engineer (Electrical/ Mechanical) | Rs. 15,000/-pm per month per person | Rupees Fifteen Thousand only per month per person |

Note 2: Project/Site Engineer for Electrical work mentioned must be required from the beginning of the work electrical work has to happen in a coordinated manner to meet the date of handover of site as per special terms and conditions.

## *SPECIAL CONDITION OF WORK*

### *1.1 General*

*Work under this contract shall be executed as given in the specifications and at site whether specially shown or not. The Contractor shall carry out and complete the work under this contract in every respect in conformity with the contracts documents and with the directions of and to the specification of the Owners.*

*The specification is intended to cover the Deign,* ***Supplying, Installation, Testing & Commissioning of 13 passenger Lifts (2 Nos.) at Faculty Building of IIT Kanpur with buyback option.*** (suitable for PH/disabled person) *is not the intent to specify completely constructional features of the equipment and details of the work to be carried out but nevertheless the intent of the specification is to ensure that the equipment and the work shall conform in all respects to the relevant Bureau of Indian Standards Specifications, codes of practice, Acts and other Statutory Regulations as may be applicable and to high standards of engineering design and workmanship. The equipment and work shall perform in continuous operation in a manner acceptable to the Owners who will interpret the meaning of the specifications and the drawings and shall have the right to reject or accept any equipment or work which in their assessment is not complete to meet the requirement of this specification and/or applicable codes and standards.*

*1.1.2 Special Conditions of contract shall be read in conjunction with the general conditions of the contract, specifications of work, drawings and any other document forming part of this contract. For any discrepancies between the General Conditions and these Special Conditions, the provisions of Special Conditions shall prevail.*

*1.13 Wherever it is mentioned in the Specifications that the Contractor shall perform certain work or provide certain facilities, it is understood that the Contractor shall do so at his cost.*

*1.1.4 The materials, design and workmanship shall satisfy the relevant Indian Standard, the job Specifications contained herein and codes referred to where the job specifications stipulated requirements in addition to those contained in the Standard Codes and Specifications, these additional requirements shall also be satisfied.*

*1.1.5 The Contractor must get acquainted with the proposed site for the works and study specifications and conditions carefully before tendering. The work shall be executed as per programme approved by the Owners. If part of site is not available for any reason or there is some unavoidable delay in supply or materials stipulated by the Owners, the programme of construction shall be modified accordingly and the Contractor shall have no claim for any extras or compensation on this account.*

### *1.2.0 Scope of Work*

*The scope of work under this specification shall include the design, manufacture, works testing, supply, storage, erection, site testing, commissioning, putting into operation, final testing and trials of the passenger elevators as per technical parameters attached with this document.*

*The scope work shall also include all civil works associated with erection of the equipment and making good and painting the civil works as required.*

*The Contractor shall include for the supply of entire materials in accordance with this specification and the whole of the work and fixing necessary for the complete installation as set down in his specification and with the accompanying schedules. All apparatus, appliances, materials or labour which may be necessary for satisfactory installation and*

*operation of the system in accordance with the intent or purpose of the specifications shall be considered to be in scope of work of the contract and shall be furnished without extra charges, as if fully described and called for in the specifications and/or shown in plans.*

### *1.3.0* ***Specification***

*The following BIS and Codes of Practice with upto date amendments will apply to the equipment and the work covered by the scope of this contract.*

*IS-1860-1980: Code of practise for installation & maintenance of electric Freight & Good Lifts.*

*IS-3534-1976: Outline dimensions of electric Lifts.*

*IS-4666-1986: Specification for Electric Freight and Good Lifts*

*IS-6383-1971: Specification of Electric Service Lifts.*

*IS-732-1963 : Codes of Practice for electric wiring installations (system voltage not exceeding 650 volts)*

*In addition the relevant clauses of the Indian Electricity Rules 1956 as amended upto date and the Indian Electricity Act 1910 shall apply. The Contractor must also take into account local and State regulations as in vogue in UP for the design and installation of Lifts.*

*Wherever appropriate Indian Standards are not available, relevant British and/or IEC Standards shall be applicable. BIS certified equipment shall be used as a part of the Contract.*

### *1.4.0* ***Site Conditions***

*All equipment shall be suitable for satisfactory and continuous operation under the following site conditions:*

*Maximum 45°C 90% RH*

*Minimum 2°C 90% RH*

### *1.5.0* ***Authorities***

*The work shall conform to all provisions of the relevant Government Legislation, Regulations and by-laws of the Central/Local Authorities and of any Companies to whose system the installation is proposed to be connected. The Contractor shall give all notices required under the said Acts, Regulations and/or by-laws. The Contractor shall be liable for any omissions and commissions in this regard.*

### *1.6.0* ***Specifications and Schedules***

*The Specifications and Schedule of Quantities shall be considered as part of this contract and any work or materials shown in Schedule and not called for in the Specifications or vice versa, shall be executed as if specially called for in both. The drawings indicate the extent and general arrangement of the equipment, landings, hoistways etc. and area essentially diagrammatic.*

*The work shall be installed as indicated on the drawings. However any minor changes*

*found essential to co-ordinate the installation of this work with other trades shall be made without any additional cost to the Owner. The data given herein is as exact as could be secured, but its complete accuracy is not guaranteed. Exact locations, distances and levels will be governed by the site conditions.*

*1.7.0* ***Departure from Specifications***

*Should the Contractor wish to depart from the provisions in these specifications such departure shall be listed in a separate Schedule with full particulars and reasons for the same. Unless this is done the tender shall be deemed to comply in every respect with these specifications. The Contractor should submit complete and detailed technical specification clearly describing the equipment to be supplied and its capability alongwith the bid.*

*1.8.0 All similar parts and/or equipment shall be interchangeable with one another.*

*1.9.0* ***Works to be done by the contractor.***

*In addition to the manufacturer, supply, installation, testing and commissioning of the lift including all auxiliary equipment, following works shall be deemed to be included within the scope of the work to be done by the contractor.*

- *All minor building work necessary for installation of equipment such as making of opening in wall/ floors, either of RCC or brick masonry etc., and restoring them to original condition and finish. The scope of minor building work includes all grouting of foundation concrete pads to be formed or made as base for supporting R.S. joists etc., grouting d anchoring of all boards clamps, supports, foundation bolts, installation in position of R.S. joists in the machine room, lift well or in the pit, such work shall exclude cutting of marble work and construction of partition wall wherever involved.*
- *Supply of necessary R.S. joists or angle iron support brackets etc., for installation of the lift, either in the machine room or at other places as may be necessary including their installation in position.*
- *All electrical works except bringing in main connection and earth connection to the machine room terminated on suitable switch fuse unit/ board. All electrical works including inter-connection from this switch / board and loop earthing from the earth bar to be provided in the machine room shall be done by the successful contractor.*
- *Responsibility to ensure safety or lift materials against pilferage and damage till the installation is handed over to the consignee.*
- *All scaffolding as may be necessary in the lift well during erection work and subsequently removed.*
- *Temporary barricades with caution boards at each landing to prevent accident during execution of work.*
- *Supply and installation of landing facia plates made of steel, car apron plates, sill support angles with necessary clamps, foundation bolts support etc., as are necessary in connection with the installation of the lift.*
- *Steel ladder to be provided for access to lift pit wherever required under regulations.*

*1.9.01* ***Coordination with other agencies***

*The successful contractor shall coordinate lift installation work with other contractor / agencies engaged in construction of building if any and exchange freely all technical information so as to make the execution of works contract smooth.*

*1.9.02* ***Completeness of tender***

*All fittings, equipments, units, assemblies and accessories, hardware, foundation bolts, terminal lugs for electrical connections, cable glands, junction box and items which are useful and necessary for efficient assembly in operation and installation shall be complete*

*in all details whether such details have been mentioned in the specification or not.*

1.9.03 ***Structural***

*The Owner shall provide all structural steel for the hoisting beams in the machine room only. All other structural steel shall be provided by the Contractor. These include Minor builders work, MS Steel Angles, facia plates and MS beams for fixing machine in the machine room.*

### *1.10.0 Scaffolding*

*Scaffolding, minor builders work including providing dash fasteners for fixing rails, brackets etc. shall be the responsibility of Contractor.*

### *1.10.1 Steel*

*Contractor shall include in his scope of work all steel requirements for machine beams, bearing plates, buffer supports, channels as required. All steel items not including but required for the installation work shall be part of the tender document.*

### *1.10.2 Completion Certificate*

*On completion of the installation a certificate shall be furnished by the Contractor countersigned by the licence Supervisor under whose direct supervision the installation was carried out. This certificate shall be in the prescribed from as required by the local supply authority. The Contractor shall be responsible for getting the installation inspected and approved by the local authorities concerned.*

### *1.10.3 Statutory Approvals*

*The Contractor shall submit the required applications, drawings, etc to the Corporation, lift Inspector, Electrical Inspectors, Factory Inspectors and/or any other statutory authorities and obtain the approval, licenses and/or sanctions. The final completion certificate shall be obtained by the Contractor from all statutory authorities to enable the Owners to commission the equipment or its utilization. The Contractor shall be responsible for all fees etc to be paid to the various authorities in this respect. The work shall not be deemed to have been completed until the above approval certificates, etc have been obtained by the Contractor.*

### *1.10.4 Spares*

*Contractors shall submit list of recommended spares for 5 years operation listing items with individual prices.*

### *1.10.5 Documentation*

*The Contractor shall provide six sets of operation & maintenance manuals with instructions for routine and periodic maintenance.*

### *1.10.6 Levelling*

*The Elevators shall be leveled by the suppliers and the required leveling accuracy maintained with 20mm thick flooring in the car to be provided by the Owners. The weight of flooring that can be accommodated in the car with guaranteed leveling as required shall be intimated in the tender.*

## *TECHINICAL SPECIFICATION FOR ELEVATORS*

### *1. Electric Supply*

*The available system of electric supply is 415 volts between phases and 230 volts between neutral & phase and neutral – 3 phase 4 wire AC 50 Hz system suitable for operation at ±10% of rated supply voltage. In addition for illumination and control power required for elevators and equipment shall be indicated in the tender. Power shall be provided at one point n each Machine Room at a point to be indicated by the Contractor. All subsequent electrical systems shall be the responsibility of the Contractor.*

### *1.2 Technical Particulars*

*The technical particulars of the Elevators are detailed in the enclosed schedule. The schedule indicates the capacity, travel, speed, number of openings, machine room and hoist way sizes etc. Should any further information required by the Contractor the same can be obtained from the offices of the Consultants.*

### *1.3 Driving Mechanism*

### *1.3.1 Elevator Machine*

*The Elevator machine shall be suitable for 415 volts 3 phase 50 Hz AC supply with a voltage variation of +/- 10% and shall be placed directly above the hoist way upon the machine room floor slab and steel beam furnished in place by the Contractor.*

*The machine shall have a high efficiency and low power consumption and shall be designed to withstand the peak currents in lift duties. Anti vibration rubber pads of adequate thickness shall be used below the machine to reduce the noise and vibrations.*

*The elevator machine shall be worm gearless reduction type and shall consist of a motor, electromechanical brake worm gear, sheave shaft and sheave all completely mounted on a common bed plate. The worm shall be provided with ball bearings to take the end thrust and roller bearings shall be provided for the sheave shaft to ensure alignment and long bearing life. The hard alloy cast iron or steel sheave shall have rope grooves to ensure proper traction and minimum rope wear. Adequate means of lubrication shall be provided for all bearings and worm gear.*

*Means for manual operation of the lift car shall be made by providing winding wheel suitably marked to indicate the direction of the movement to enable the lift car to be brought to the nearest landing. There shall be a warning display for switching off electrical supply before the manual operations.*

### *1.3.2 Brake*

*The electromagnetic brake shall be spring applied and electrically released. It shall come into action after the lift has come to a complete halt to hold the car in position. The brake shall operate automatically with the safety devices and release the brake manually such release requiring the action of manual force to move the lift in short stops.*

### *1.3.3 AC Motor*

*The AC self lubricating motor shall be suitable for elevator use with high starting torgue and low starting current. Thermostats shall be embedded in the stator winding to indicate*

*the temperature rise in the motor. The AC motor shall have class F insulation and suitable for 210 starts per hour with a maximum temperature rise of 50°C over the ambient.*

### *1.4 **Controls***

*The Elevators control shall be AC variable voltage variable frequency (A.C.V.V.V.F). The system shall control the starting, stopping direction of motion, running of the lift motor and application of the brake and/or safety devices in the event of power failure or any other emergency. It shall be so designed as to ensure a smooth and constant acceleration and retardation under all opening conditions.*

*The contractor shall be wall/floor mounted, vertical totally enclosed cubicle type with hinged doors on the front and the rear to provide easy access to all components in the controller. The cubicle shall be well ventilated such that the temperature inside never exceeds the safe limits of the components at ambient room conditions in the machine room.*

*The controller shall operate within the supply voltage variation of plus 10% to minus 20% of the nominal voltage.*

*a) Over current*
*b) Under voltage*
*c) Over voltage*
*d) Single phasing*
*e) Phase reversal*

*The controller shall be designed to cut off the power supply, apply the brake and bring the car to a rest in the event of any of the above failures occurring.*

*The Contractor must state clearly the forms of protection provide for each equipment.*

*If any devices of the electro mechanical type are used the same shall be equipped with arc chutes to prolong the life of contacts. Contractors must stipulate the type of devices used and the material of the contacts.*

*Contractors must support such offers with complete details of experience, number of lifts installed and operational in India, collaboration for equipment design and manufacture etc.*

### *1.5 **Hoist Ropes***

*Round standard steel wire ropes as per Indian standards shall be used for Lift suspension. The number and size of the hoist way ropes shall be so selected to ensure proper factor of safety minimum 10 and adequate traction for the elevator. The governor ropes shall also be wire ropes.*

*The Hoist way landing door shall be provided with an interlock such that:*

*a) It shall not be possible for the car to be started or kept in motion until all the landing doors and the car door are locked in the closed position.*
*b) It shall not be possible to open the landing door from the landing unless the Lift car is within the particular landing zone.*
*c) The car doors & Hoist way landing doors open automatically as the car is stopping at a landing. The closing of the car and landing door must occur before the car is set in motion.*

*1.6* ***Car Platform***

*The car platform shall be of framed construction and designed on the basis of rated load.*

*1.7* ***Car Enclosure***

*The elevator car enclosure shall be as per parameters enclosed in the schedule of quantities. The ceiling shall have an arrangement for a cabin fan mounted on the roof of the car. Indirect fluorescent lighting shall be provided to evenly illuminate the car. The car enclosure shall be pre-laminated particle board 12 mm thick to wall and ceiling in desired shade and grooves covered with teakwood beading of desired shape with floor 5mm thick steel chequered plate.*

*Car Design:*
*Car walls finish stainless steel, front and doors in stainless steel, mirror on rear car panel, Dimpled anti skid vinyl flooring*

*Car operating Panel:*
*Stylish brushed SS finish car operating panel, visual call confirmation, dot matrix display,car position indicator*
*Landing doors:*
*fully automatic landing doors in powder coated finish*

*1.8* ***Car Door***

*The car entrance for the elevators shall be protected by Steel collapsible gate duly painted and providing car and landing doors with horizontal biparting as per IS14665*

*1.9* ***Hoist way Landing Doors***

*For the hoist way doors at each landing, two mild steel painted panels centre opening horizontal sliding doors shall be provided to give a clear opening as indicated in the technical parameters. These shall be duly painted to the shade approved by the institute and suit to the site condition.*

*1.10* ***Car and Hoist way Operations***

*The car and hoist way doors shall be mechanically connected such that both move simultaneously for opening and closing. The hoist way landing door shall be provided with and interlock such that.*

*It shall not be possible for the car to be started or kept in motion until all the landing doors and the card door are locked in the closed position.*
*It shall not be possible to open the landing door from the landing unless the lift car is within the particular landing zone.*
*The car doors and hoist way landing doors open automatically as the car is stopping at a landing. The closing of the car and landing door must occur before the car is set in motion.*

*2.* ***Door Hangers and Tracks***

*The car and the landing door shall be provided with two point suspension sheave type hangers complete with tracks sheaves and rollers shall be steel with moulded nylon collar and shall include shielded ball bearings. Tracks shall be of suitable steel section with smooth surface. The landing doors shall be complete with headers, sills, frames etc as reqd.*

*2.1* ***Cabin Fan***

*A noiseless cabin fan shall be include for all elevators.*

*2.2* ***Emergency Light***

*An emergency light unit using sealed maintenance free battery power pack and fluorescent lamp to operate automatically in case of power failure shall be provided in each elevator car.*

*2.3* ***Alarm Bell***

*An emergency alarm bell including wiring shall be provided and connected to plainly marked push button in the car operating panel. The alarm shall be provided in the Ground floor lobby if required, The Owner may at his own cost extend the alarm bell to the security/control room.*

*The alarm unit shall be solid state siren type operated by 2 nos. 9 volts dry batteries to give a waxing and warning siren when the alarm button in the car is pressed momentarily.*

*2.4* ***Operation Buttons***

*The following operation buttons shall be provided*

*2.5* ***In Each Lift Car***
*Stainless steel return panels of suitable thickness shall be provided on each side of the door with the following flush mounted controls on one side:-*

*a) Illuminated type push buttons corresponding to the floors served. Floor nos. on push buttons shall be numbered from 1 to onward.*
*b) Door open button*
*c) Emergency stop button*
*d) Emergency call button connected to a bell for an emergency signal*
*e) Two position key operated switch for 'with attendant' and 'without attendant' operation*
*f) Ventilation fan ON/OFF switch*
***g)*** *Built in intercom of the pick and speak type*
***h)*** *UP/DOWN direction display*

*2.6* ***At Landing***

*Illuminated type 'UP' and 'DOWN' push buttons at each intermediate landings and single illuminated type push buttons at terminal floors. The push buttons shall illuminated when the same is pressed to indicate that the call has been registered. The button shall remain illuminated until the call is answered.*

*One set of calling buttons shall be provided for a bank of two elevators*

*2.7* ***Indications***

*2.7.1* ***In Each Car***

*The following indications shall be provided in the cars:*

a) *Digital car position indicator provided above door to indicate the landing at which the car is stopped or passing.*
b) *Illuminate "UP" and "DOWN" arrows on the position indicator above door to indicate direction of travel.*

*2.17.2* ***At all landings***

*Combined hall position indicator and hall lanterns is not part of the offer. This feature is generally a standard part of the equipment for Duplex Lifts i.e. two Lifts in the same control.*

*2.17.3* ***Safety Devices***

*The following safety devices shall be provided:*

*2.17.4* ***Self Leveling***

*The Lift shall be provided with a +/- 5mm self leveling accuracy feature of the two way automatic type. The self leveling device should automatically correct for under run, over run and rope stretch.*

*2.17.5* ***Terminal & Final Limits***

*Terminal limit switches shall be provided to slow down and stop the car automatically at the terminal landings and final limit switches shall be furnished to automatically cut off the power and apply the brake should the car travel beyond the terminal landings.*

*2.17.6* ***Terminal Buffers***
*Suitable spring buffers shall be used from existing Lift.*

*2.17.7* ***Interlocking***

*Adequate interlocking is to be provided so that the car shall not move if the landing doors are even partially open.*

*2.17.8* ***Car Safety and Governor***

*The car safety shall be provided to stop the car whenever excessive descending speed is attained. The safety will be operated by a centrifugal governor located at the top of the hoist way and connected to the governor through a continuous steel rope. Suitable means shall be supplied to cut off power from the motor and apply the break on application of the safety.*

*2.17.8* ***Fireman Switch***

*Each elevator shall have a fireman switch glass front for access by the fireman. The operation of this switch shall cancel all calls to this Lift and will stop at the next nearest landing if traveling upwards. The doors will not open at this landing and the Lift will return to the ground floor. In case the elevator is traveling downwards when the fireman's switch is operated it will go straight to the ground floor by passing all calls enroute. The emergency stop button inside the car shall be rendered inoperative.*

***3. Gearless machine:***
*The gearless machine shall consist of a motor, traction sheave and break-drum or brake disc completely aligned on a single shaft. Gearless machine shall be A.C. gearless with VVVF drive.*

***4. Hand winding wheel or handle:***

*At times of lift stoppage due to any reasons, it shall be possible to move the lift car to the nearest landing manually. The manual operation shall be by means of winding. Wheel or handle mounted on the end of the motor shaft. The up or down direction of the movement of the car should be clearly marked on the motor or at suitable location. A warning plate written in bold signal red colour advising the maintenance staff to switch off the mains supply before releasing the break and operating the wheel is to be prominently displayed.*

***5. Inter- communication system:***

*Recommends for provision of either an emergency or a telephone inside the car but as a general experience it is seen that over a period of time these devices become inoperative due to one reasons or the other. Therefore, in order to have at least one device of communication functioning at all the times, as an alternative arrangement, provision of both i.e. telephone with minimum tow connections-one at the operator's room and other at guard room and the emergency signal with re-chargeable batteries as source of supply shall be made in the lift cars.*

*The device used for emergency signals should incorporate a feature that gives immediate feed-back to the car passengers that the device has worked properly and the signal has been passed on to the intended agency. This shall be achieved by pressing of button from control room which shall give audio signal to the passengers in the car.*

***6. Emergency Power Supply for lift car:***

*This shall include suitable secondary battery with trickle/boost charge arrangement and inverter power pack with necessary contactors for supplying the light fixtures in the lift car. The same battery shall also feed the alarm bell and communication equipment.*

***7. Car landings:***

*All the lift car landing shall be well lit to an illumination level of 150 lux and shall be free from obstructions. The control for landing lights and the sigh lights shall be tamper proof. Wherever stand by power supply is available, these lights shall be connected to standby circuits also.*

***8. Instructions:***

*Detailed instructions as specified for guidance of passengers shall be prominently displayed inside the car by contractor and outside the car at all landings by the department. The Braile signage will be posted by the department outside lift lobby at all landings for the lift meant for barrier free requirements as per specifications.*

***9. Levelling:***

*All lift (s) shall be incorporated with suitable floor leveling devices. In case of lifts with automatic power operated doors and with A.C. VVVF controller a separate level device for automatic leveling with leveling accuracy of ± 5mm shall be incorporated.*

***10. Counter Weight Guards:***

*Guards of wire metal/ mesh shall be provided in the lift pit to a suitable height above the pit floor to eliminate the possibility of injuries to the maintenance personnel.*

***11. Guide shoes**:*

*Two numbers of guide shoes at the top and two numbers at the bottom shall be provided on the lift car and counter-weight.*

***12. Type of shoes:***

*For passenger lifts and bed-cum-passenger lifts*

*i. For speed upto 1.5 mps sliding guide shoes shall be used. Sliding guide shoes For car shall be always flexible and for counterweight solid guide shoes can be Used upto 1.0 mps.*

*ii. For speeds more than 1.5 mps roller guide shoes shall be used for car and Counter weight.*

***13. Rope fastenings:***

*The ends of lift ropes shall be properly secured to the car and counter weight hitch plates as the case may be with adjustable rope shackles having individual tapers babbit sockets, or any other suitable arrangement. Each lift rope shackle shall be fitted with a suitable shackle spring, seat washer, shackle nut & shackle nut split pin.*

***14. Guards for lift ropes:***

*Where lift ropes run round a sheave or sheaves on the car and/ or counterweight of gearless machine suitable guards shall be provided to prevent injury to maintenance personnel.*

***15. Number & size of ropes:***

*The contractor must indicate the number and size of lift ropes and governor ropes proposed to be used, their origin, type, ultimate strength and factor of safety. The contractor should furnish certificate of ropes from the rope from the rope manufacturers issued by competent authority.*

***16. Safety Equipments:***

*Every lift installation shall necessarily be provided with the following safetyfeatures:*

*The safety gear shall be provided in accordance with IS (part-4-Sec.4):2001, each type of car safety shall be actuated by a speed governor.*

***17. Governor**:*

*The car safety shall be operated by speed governor located overhead and driven by governor rope suitable connected to the car and mounted on its own pulleys. The rope shall be maintained in tension by means of weighted or spring loaded tension sheaves located in the pit. Governor shall be provided for lifts with a travel of more than 5.5 meters. The governor rope shall be not less than 6mm in dia and shall be made of steel or phosforbronze. These shall be in accordance with IS 14665 (part 4/sec-4):2001. Governor for car safety gears shall be adjusted to actuate the safety gear at the following speeds: -*

*i. For rated speeds upto 1m/s maximum governor tripping speed shall be either 140 percent of rated speed or 0.88 m/s, whichever is higher. For rated speed above 1m/s maximum governor tripping speed shall be 115 per cent of the rated speed plus 0.25 m/s.*

*ii. Minimum governor tripping speed shall be 115 per cent of the rated speed.*

*18. The governor shall be of "V" groove wheel design and only wheel is stopped to actuate the car safety upon a pre-determined over speed downward without damaging the rope.*

*19. The governor, rope and sheave shall be so located so as to minimize danger of accidental injury to the equipment.*

*20. The governor sheave and tension sheave shall be according to clause 2.4 and the*

*sheave bearing shall be according to clause 2.7 of this chapter.*

*21. The requirements for field tests on car safety and governor and for drop tests to sliding type can safeties shall be as specified in section IV of this specifications.*

*22. Buffers –*

*Buffers shall be oil resistant rubber pad type for speeds upto 0.25 mps and spring/ oil type for speeds upto 1.5 mps and only oil type for speeds higher than 1.5 mps.*

*Buffers shall be suitable for installation in the space available. Buffers anchorage at pit floors shall be installed avoiding puncturing of water proofing.*
*Oil buffers of the car and counter weight shall be of the spring return type of gravity type.*

*The partial compression of spring return oil buffe4rs when the car is in level with terminal landing will not be acceptable.*
*All buffers shall be tested at manufacturer's works and a copy of the test report shall be submitted.*
*When the lift car rests on fully compressed buffers there shall be at least 60 cms clearance between the lowest point in its car frame and any obstruction in the pit exclusive of buffers and their supports. Similarly when the lift car cross head is 60cm from the nearest obstruction above it, no projection on the car shall strike any part of overhead structure.*
*The contractor must indicate the name of buffer manufacturers, buffer stroke & certified maximum loads.*

***23. Door Locks:***

*Electro-mechanical door lock shall be provided for all the landing doors and they shall be such that the doors cannot open unless the car is at rest at the particular landing. It shall not be possible to move the car unless all the landing doors and the car door are closed and locked. This requirement however does not apply when the lift car is provided with automatic leveling devices and in such cases, it shall be permitted to move the car with both the doors open in the leveling zone for the purpose of leveling.*

***24. Automatic- cum-attendant operation:***

*i. Single automatic Push Button with/ without attendant – The operating devices for this operation shall incorporate in the car control panel, car buttons corresponding to the various landings served and single landing button at each landing, all electrically connected to controller governing floor selection, direction of travel, acceleration, retardation etc.*
*This system shall be so arranged that when the car is not in use, on pressing a landing call button the car shall start automatically provided all the doors are closed. During the movement of the car and also when car tops at floor landing, other landing call buttons are in-operative for a predetermined time. The pressing of a car button shall automatically start the car and sent it to the desired landing. In all the cases, the starting of the car is contingent on the establishment of landing door and car inter-lock circuits. To indicate the availability, or 'in use' light shall be place in the landing call button panel. When light shall be 'OFF' the passenger shall be able to call the car. In case of manual operated door if the lift is standing at any landing with doors open (when not in use), the pressing of the landing call button shall ring a bell, fitted at the top of car to attract the attention of the people soliciting their help for closing the lift door if any one of the them happens to be near the lift incase of power operated doors, the landing and car doors shall be arranged to open automatically when the car is parked at landing after all the calls are served and the lift is parked at any landing. The doors can remain open or alternatively if desired, the car shall be arranged to close after a pre-determined time unless closing is prevented or interpreted by the car doors re-opening device or the door open button.*
*The lift shall be suitable for dual operation with or without attendant by the provision of*

*key operated transfer switch indicating 'attendant' and 'automatic' positions. During 'attendant' operations the landing call shall be disconnected from the control system and shall be connected to an announciator in the lift car. The attendant shall then operate the car to answer the registered calls. This operation is recommended for single speed control lift for low rising building having a single lift installation.*

***25. Simplex Selective-Collective operation with/ without attendant:***

*Automatic operation by means of one button in the car for each landing level served and by up and down buttons at the landings, wherein all stops registered by the momentary actuation of the car made defined under non-selective Automatic Operation but where in the stops registered by the momentary actuation of the landing buttons are made in the order in which the landing are reached in each direction of travel (irrespective of the sequence in which the buttons have been actuated). With this type of operation, all 'up' landing calls are answered when the car is traveling in the up direction and all 'down' landing calls are answered when the car is traveling in the down direction, except in the case of the uppermost or lowermost calls which are answered as soon as they are reached in-respective if the direction of travel of the car.*

***26. Duplex Collective Selective Operation with/ without attendant:***

*The control system for this operation shall be similar to the one described under simplex selective-collective operation except that in this system there shall be tow lift car adjacent wells. It shall be arranged to co-ordinate both cars for efficient service and prevent them from answering the same calls by the provision of only one set of landing call button fixtures. It shall automatically assign each call to the car that will be in the best position to answer promptly. The system shall be so arranged that when the cars are idle, normally one car will be parked at the lower main landing with its doors closed or open and the other car shall be free car parked with the doors closed or open to the landing where it answered its last call, and shall be the one to attend to the nearest call.*

*Each car shall always respond to calls registered by its own car call buttons. When either car is parked out of service for any reasons the other car shall function as single car (simplex) selective collective. Besides the control system shall also arranged for independent service from inside the car.*

*A by-pass button (non-stop button) shall also be provided inside the car to enable the attendant to by-pass any landing if the car is full or if otherwise so required.*

*The two lifts shall be arranged with or without attendant operation and shall function as described using single car selective-collective operation. When the transfer switch is in the attendant position the operation of the cars shall be identical with that described for automatic operations except that:*

*i. Closing of doors and starting of cars shall be initiated by the car buttons only.*
*ii. Buzzers and directional lights in the car are operative, and*
*iii. Landing by-pass shall be effective.*

*The pressing of an up or down landing call shall illuminate appropriate direction indicator in the car panel, which is to answer that call and if the doors are open shall also sound buzzers as a signal to the attendant. If both cars are parked at the lower landing the above signals shall be given to the car which has been at the floor for longest time.*

***27. Automatic selection of traffic programme:***

*The group supervisory control continuously examines traffic conditions in the building and automatically puts into operation the programme which can best cope with the demand at any particular time. This is fully automatic and requires no supervision or attendant. To suit the traffic demand in the building, suitable traffic programmes can be selected for inclusion in this control.*

***28. Controlling Equipment:***

*The movement of the car shall be electrically controlled by means of a controller located in the machine room.*

***29. Control circuits:***

*The control circuit shall be designed to the type of lift specified for safety operation. It shall not be possible to start the car unless all the car and landing doors are fully closed and landing doors locked. The circuit shall have an independent fuse protection for fault and over loads and be arranged so that earth fault or an open circuit shall not create unsafe condition. The circuit shall be so arranged that for the stoppage of the car at specified landing or for actuation of a contactor by emergency switches or operation of safety gears the system shall not depend upon the completion or maintenance of an electrical circuit to cut off power supply and apply the brakes. This requirement is not applicable to dynamic braking and speed control devices.*

***30. Terminal Boards:***

*All wiring for external control circuits shall be brought to a terminal board with means of identification of each wire. Metallic/plastic identification tags shall invariably be provided. All connections of wires to terminal boards shall be adequately clamped or screwed.*

***31. Auxiliary Switches:***

*i. Emergency stop switches:*

*On top of the lift car an emergency stop switch shall be provided for use by maintenance personnel. Stop switch shall be provided in the machine room. Operation of these switches/ buttons shall cancel all the registered calls and landing calls for that particular lift.*

*ii. Maintenance switch on top of the car*

*For purpose of inspection and maintenance, maintenance switch shall be provided on top of the car. The control circuitory shall be so arranged that in the event of the operation of this switch:*

a. *The car speed shall be less than the rated speed not exceeding 0.85 meters/sec.*
b. *The car movement shall be possible only on the application of the continuous pressure on a button. It shall be so mounted to prevent any inadvertent operation.*

*iii. Fireman Switch:*

*Fireman switch with glass to break for access shall be provided at ground or main floor for all the lifts. The operation of this switch shall isolate/ or cancel all calls to all the lifts and the lifts will stop at he next nearest landing if traveling upward. The doors will not open at this landing and the lifts will start traveling to ground floor. If these were already traveling down, they will go straight to ground floor direct without stopping enroute.*

*iv. Inspection facility:*

*An inspector's change over switch and set of test buttons shall be provided in the controller. Operation of the inspector's change over switch shall make both the car and landing buttons inoperative and permit the lift to be worked in either direction from machine room for test purposes by pressing corresponding test buttons in the controller. It shall not however interfere with the emergency stop switches inside the car or on the top of the car.*

*v. Safety line indicators:*

*If specified visual tell tale lights may be provided to monitor the conditions of faults in the safety line of the lift for easier fault finding. These indicators will remain lit when safety circuits are normal.*

*One indicator shall be provided for each safety on the controller. If any indicators fail to light up as the lift proceeds in its sequence of operation, there shall be visual indication of*

*the safety line open circuit and also its location for easier fault finding.*

***32. Control Wiring:***

*i. Wiring in machine room:*

*Power wiring between the controller and main board controller to various landings shall be done in heavy gauge conduit or metal duct & shall conform to I.E. Rules 1956 and CPWD Specifications for electrical works. Following general principles shall be followed in siring:*

a. *i) Control cables carrying DC and power cable carrying AC shall not be run in the same conduit or metal duct and they shall be laid as per I.E. rules.*
   *ii) Metal duct with removable inspection cover shall be preferred.*
   *iii) in case of control cables also the harness shall be separate as far as feasible for separate functions and laid separately in suitably dimensioned metal duct or in a separate conduit such as the signal8ing, locking, lamp indication and safeties. Control cables for different voltages in the lift installation works should be laid as per IE. Rules.*
b. *At least 5 percent with a minimum of 5 unconnected spare wires shall be available out of all the lines to be provided in the wiring harness from the midway junction box to the machine room.*
c. *There shall be a master isolating switch Fuse associated with the controller heavy duty load break, quick make quick break type TP&N preferably interlocked with controller cabinet door. Isolator handle shall have provision for external locking in off position.*
   *All relays shall be suitable for lift service and shall incorporate adequate*
   *Contact wipe for reliable operation. Relays shall operate satisfactorily between 80 percent to 110 percent of their voltage.*
   *Main motor contactors shall be suitable for A.C. duty. Tenderer shall be required to furnish full details of make, type, applicable standard, voltage and current rating, duty class, type and routine tests done etc., on contactors and relays. Copies of type test certificates and other test certificates shall also be furnished by the successful tenderer.*
   *All cables shall be with copper conductors and flame retardant or PVC insulated of appropriate size. The cables feeding motor and in heavy current flow paths shall be so selected that the size matches the protecting fuses and will not result in more than 2 percent voltage drop from the main board to the terminals of motor. Control cables shall not be less than 0.5 sq. mm. or equivalent if stranded; where installation of heavy gauge conduits present difficulties, short lengths of flexible conduits will be permitted but effective electrical continuity and earth bonding shall be ensured. Ferrules shall be slipped at the ends of all cables as per standard control wiring practice. All terminal blocks shall be suitably marked.*

***33. Trailing Cables:***

*A single trailing cable for lighting control and signal circuit is permitted, if all the conductors of this trailing cable are insulated for maximum voltage running through any one conductor of this cable. The lengths of the cables shall be adequate to prevent any strain due to movement of the car. All cables shall be properly tagged by metallic/plastic tags for identification.*

*Trailing cables shall run from a junction box on the top of the car to a junction box located in the shaft near mid point of travel and from these junction boxes conductors shall be run to the various locations*

*Trailing cables exceeding 30 meters in length shall run so that the strain on individual cable conductors will be reduced to a minimum and the cables are free from contact with the car counterweight, shaft walls or other equipment.*
*Trailing cables exceeding 30 meters in length shall have steel supporting fillers and shall be suspended directly by them without rubbing over other supports.*
*Cables less that 30 meters in length shall have no – metallic fillers and shall be suspended by looping cables around supports of porcelain spools type or equivalent.*

*12 per cent of the total capacity subject to a minimum of 5 wires shall be available unutilized in the trailing cable everywhere suitably distributed between various functions.*

***34. Earthing:***

*Metal frames and all metal work of the lift controller frame etc., shall be earthed with double earth leads taken to the earth bar. Looping shall be permitted if such routing is feasible. All other individual metallic frame work of components etc., shall be loop earthed.*

***35. Lift Rope Compensation:***

*The lift rope compensation for lift travel shall be provided for lift travels beyond 40m in all cases.*

***36. Automatic Rescue Devices (ARD):***

*The automatic rescue devices (ARD) meant for the purpose of bringing the lift car to the nearest landing doors are being used selectively and is generally restricted to commercial buildings having heavy traffic. However, frequent power failures being the common phenomenon, the provision of ARD shall be made in all the lifts in public buildings. The ARD shall have the following specifications:*

i. *ARD should move the elevator to the nearest landing in case of power failure during normal operation of elevator.*
ii. *ARD should monitor the normal power supply in the main controller and shall activate rescue operation within 10 seconds of normal power supply failure. It should bring the elevator to the nearest floor at a slower speed than the normal run. While proceeding to the nearest floor the elevator will detect the zone and stop. After the operation is completed by the ARD the elevator is automatically switched over to normal operation as soon as normal power supply resumes.*
iii. *In case the normal supply resumes during ARD in operation the elevator will continue to run in ARD mode until it reaches the nearest landing and the doors are fully opened. If normal power supply resumes when the elevator is at the landing. It will automatically be switched to normal power operation.*
iv. *All the lift safeties shall remain active during the ARD mode of operation.*
v. *The battery capacity should be adequate so as to operate the ARD at least seven times a day provided the duration between usages are at least 30 minutes.*

Appendix-I

## LIST OF APPROVED MAKES

| *SL.NO.* | *DETAILS OF EQUIPMENT AND MATERIALS* | *Make* |
|---|---|---|
| *1.* | *ELEVATORS* | *National/International* |

# 8 Special Conditions of Contract

## 8.1 Special Conditions for the minor works under the contract

1. The contract will be used only to execute original works/ minor works/ repair works of urgent nature. It can also be used for any works of restoration as a result of a disaster in campus causing damage to institute infrastructure/ works related to emergency services/ works of institute importance/ works concerned to safety health and environment of campus community. The works undertaken through such contracts are categorized as time bound and should be executed as per Table 6.
2. The contractor should always keep his establishment ready to commence the work immediately after the issue of the work of any amount. The schedule for the issued works under the contract should be at per Table 6. Work requests of urgent nature shall be started at the earliest after receiving orders from the engineer-in-charge but it should be documented with photo and video evidence for all hidden items. Submission of this evidence is mandatory for all works executed.
3. During the execution, the noise creation should be minimized to the extent possible and the works may be carried at odd hours and more than one shift as per requirement.
4. The performance of the instruments or tools to be used should be checked precise before using them on site.
5. The contractor and his/her personnel has to build a well- coordinated system with the users regarding execution of the works.

## 8.2 Timely Completion

1. All work components must be started simultaneously and has to be delivered together or early within the given time schedule.
2. The contractor has to deploy the labor and supervisory staff in shifts to meet the targeted completion date. The work may be executed in extended shifts or two shifts.
3. Number of days from the date of issue of letter of acceptance for reckoning date of start shall be as per Schedule. *If the Contractor commits default in commencing the execution of the work as aforesaid, the performance guarantee shall be forfeited.*
4. The contractor shall procure the required materials in advance so that there is sufficient time for testing of the materials and approval of the same before use in the work, as required.

## 8.3 Rates

1. Unless otherwise provided in the schedule of quantities of the work the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building (Exclusive of GST) and nothing extra shall be payable to him on this account.
2. The rates for all items of work shall, unless clearly specified otherwise, include cost of all labours, materials, testing charges and other inputs involved in the execution of the item irrespective of whether they have been specifically mentioned in the tender document or not.
3. In case the same item (s) appear more than once in the schedule of work / BOQ under

the same sub head or among the different subhead of works, the lowest rate quoted for that item (s) shall be considered for the particular item(s) wherever appeared in any part of BOQ / Schedule of works for the purpose of tender evaluation although web generated e-price bid may incorporate different quoted rate for same item(s) as per the quoting pattern of the tenderer. The tendered amount thus worked out shall be final &shall be binding on the contractor.

4. No double scaffolding is payable in single story houses including parapet wall. In multistoried houses the payment of double scaffolding shall be made after 3.5 meter from plinth protected level. The necessary deductions for single scaffolding be made from the items. Contractors are advised to visit the site & quote the rates accordingly.
5. The rates quoted by the contractor will be deemed to be inclusive of any extra expenditure of this reason. The contractor has to increase the manpower or other tools etc. to do the work as per the quantum of work provided to him at his own expenses. Nothing shall be paid on this account.
6. The contractor shall provide at his own cost suitable weighing, surveying and leveling and measuring arrangements as may be necessary at site for checking. All such equipment shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.
7. Other agencies may also simultaneously execute and install the works and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings, trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be available as specified elsewhere in the contract) and the contractor shall fix the same at the time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.
8. All material shall only be brought at site as per program finalized with the Engineer-in-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
9. MCCB's, switches, sockets, wires, cable, light fixtures, earthing's and other electrical items covered under the contract should conform to approved manufacturers specifications, where CPWD Specifications are not applicable. The contractor should get the materials (fixtures/fittings) tested from approved labs wherever required at his own cost.
10. The contractor shall be responsible for the watch and ward / guard of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the client department. No extra payment shall be made on this account.
11. The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work, profile, establishment of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, preparatory works, working during monsoon, working at all depths, height, lead, lift and location etc until / unless specified otherwise and any other incidental works required to complete this work. Nothing extra shall be payable on this account.

## 8.4 Quality and Workmanship

1. The contractor shall be entirely responsible and answerable for all the works done by him regarding quality, adherence to the laid down specifications, terms and conditions, warranty/guarantee etc. and he shall be liable to bear any compensation that may be levied by the department under any of the clauses of the agreement.
2. The materials having ISI mark shall have precedence over the one conforming to IS Specifications.
3. The proposed buildings are Institute housing and quality of work is paramount importance. Contractor shall have to engage well experienced skilled labour and deploy modern T&P and other equipment to execute the work.
4. Samples of all materials and fittings to be used in the work in respect of brand manufacturer and quality shall be approved from the Engineer-in-Charge, well in advance of actual execution and shall be preserved till the completion of the work.
5. All materials used in the work shall be new and of good quality, conforming to the relevant specifications as per good engineering practice. All the materials proposed to be used in the work should be approved from Engineer in Charge before use in work.
6. Articles bearing BIS certifications mark shall only be used unless no manufacturer has got BIS/ISI mark for the particular material. Any material/fitting whose sample has not been approved in advance and any other unapproved material brought by the contractor shall be immediately removed as soon as directed. Where the make of any particular material is not specified in the Contract document, the material shall be supplied as per makes desired by the engineer-in-charge.
7. It will be the responsibility of the contractor / bidder to ensure use of genuine materials in the work. The department reserves the right to get (any / all materials / components) inspected by the manufacturer or their authorized representatives at any stage of the execution of work. If any of the materials, supplied and used in work is found spurious at any stage, then the department reserves the right to ask the contractor to replace it by genuine one and make suitable recovery till it is done, even if any payment against that material is already made.
8. The contactor should get the make/TDS documents approved before procuring any material at site. The TDS/Make once approved shall not be changed without any valid recorded reasons. No material to be brought and used at site without the prior knowledge & approval of Engineer-in-Charge.
9. The department may ask for any valid document like manufacturer's test certificate, document for purchase of the material, document for import/shipment of imported materials etc. as deemed fit by the engineer-in- charge to ascertain genuinely of material supplied by/used in the work by the contractor. The contractor shall remain bound to submit all such documents to the department failing which payment may not be made or if already paid may be recovered/ withheld from subsequent running account payment.
10. All equipment and their components, and all the materials to be used in the work shall be suitable for the environmental conditions at the location of the work.
11. The contractor shall ensure quality control measures on different aspects of construction including materials, workmanship and correct construction methodologies to be adopted. He shall have to submit quality assurance programme within two weeks of the award of work. The quality assurance programme should include method statement for various items of work to be executed along with check lists to enforce quality control.

12. The contractor shall get the source of all other materials, not specified elsewhere in the document, approved from the Engineer-in-Charge. The contractor shall stick to the approved source unless it is absolutely unavoidable. Any change shall be done with the prior approval of the Engineer-in-Charge for which tests etc. shall be done by the contractor at his own cost. Similarly, the contractor shall submit brand/ make of various materials not specified in the agreement, to be used for the approval of the Engineer-in-Charge along with samples and once approved, he shall stick to it.

13. Other Laboratories: The contractor shall arrange carrying out of all tests required under the agreement through the laboratory as approved by the Engineer-in-Charge and shall bear all charges in connection therewith including fee for testing. The said cost of tests shall be borne by the contractor/department in the manner indicated below.

    (a) By the contractor, if the results show that the test does not conform to relevant CPWD Specifications / BIS code or specification mentioned elsewhere in the documents.

    (b) By the department, if the results conform to relevant CPWD Specifications / BIS code or specification mentioned elsewhere in the documents.

    If the tests, which were to be conducted in the site laboratory, are conducted in other laboratories for whatever the reasons, the cost of such tests shall be borne by the contractor.

14. Sample of materials fittings and other articles required for execution of work shall be got approved from the Engineer-in-Charge. Articles manufactured by companies of repute and approved by the Engineer-in-Charge shall only be used. Articles bearing BIS certification mark shall be used in case the above are not available, the quality of samples brought by the contractor shall be judged by standards laid down in the relevant BIS specifications. All materials and articles brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-Charge which shall be preserved till the completion of the work.

15. The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material/work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-Charge.

16. BIS marked materials except otherwise specified shall be subjected to quality test at the discretion of the Engineer-in-Charge besides testing of other materials as per the specifications described for the item/materials. Wherever BIS marked materials are brought to the site of work, the contractor shall if required, by the Engineer-in-Charge furnish manufacturers test certificate or test certificate from approved testing laboratory to establish that the material produced by the contractor for incorporation in the work satisfies the provisions of BIS codes relevant to the material and/or the work done.The contractor shall procure all the materials at least in advance so that there is sufficient time to testing and approving of the materials and clearance of the same before use in work.

17. All materials brought by the contractor for use in the work shall be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.

18. The contractor shall be fully responsible for the safe custody of the materials issued to him even if the materials are in double lock and key system.

## 8.5 Natural calamity

No payment will be made to the contractor for any damage caused by rain, snow fall, floods, dampness, fire, sun or any other natural cause whatsoever during the execution of work. The damage to the work due to above reason, if any, shall have to be made good by the contractor at his own cost and no claim on this account shall be entertained.

## 8.6 Safety and Security

1. The contractor has to follow all safety norms as laid down in National Building Code of India. All the workers shall be equipped with the required safety gadgets while working at site such as ISI marked helmets, Shoes and safety belts, gumboots, gloves etc.The contractor, the authorized representative(s), workmen etc., shall strictly observe orders pertaining to fire precautions prevailing in the area.
2. The contractor shall be fully responsible for the safe custody of materials brought by him/ issued to him even though the materials may be under double lock key system.
3. Contractor will arrange proper metal ladders, M.S. double scaffolding (for working, painting, etc. at higher levels) at his own cost and will take all safety measures like double harness safety belt, mechanized electrically operated platform etc. If it is observed that work is proceeding without adequate safety precautions, work may be stopped by Engineer-in-charge and in such cases, contractor will be solely responsible for delay and its consequences thereof.
4. The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.
5. The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night speed limit boards red flags, red lights and providing barriers. He shall be responsible for all dangers and incidents caused to existing / new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.
6. It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.
7. The Institute shall not have any responsibility or liability in case of any accident injury to the personnel to the contractor at work site or to the general public at the work site due to mishandling equipment by the personnel of the contractor or any other similar reason. The responsibilities and liabilities for such accidents and incidents shall be borne by the contractor.

## 8.7 Approach to Site

1. The tenderer shall see the approaches to the site. In case any approach from main road is required at site or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost.
2. Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost.

## 8.8 Acts and Laws

1. The Contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / MC etc. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work.
2. The Contractor shall also adhere to all traffic restrictions notified by the local authorities.
3. All statutory taxes, levies, charges (including water and sewerage charges, charges for temporary service connections and / or any other charges, as applicable) payable to such authorities for carrying out the work, shall be borne by the Contractor.
4. The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and shall pay to such authority all the fees that is required to be paid for the execution of work. He shall protect and indemnify the Institute and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself/herself or by his/her employees or his/her authorized representatives. Nothing extra shall be payable on these accounts.
5. The fee payable to statutory authorities for obtaining the various permanent service shall be borne by the Institute.

## 8.9 Labour and Laws

1. The Contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc. under various labour laws and other regulations applicable to the works, at his site office.
2. Huts for labour are not permitted within the premises of the Institute. No extra cost shall be payable even if the contractor provides such accommodation at a place as is acceptable to the local body.

## 8.10 Nondisclosure Agreement

1. The Agency shall take all precautions not to disclose, divulge and/or disseminate to any third party any confidential information, proprietary information on the Institute business or security arrangements (including but not limited to the Assignment instructions, Schedules and other subsequent Arrangements) and/or business of the Institute. The obligation is not limited to any Scope and the Agency shall be held responsible in case of beach of the confidentiality of Institute's information.
2. If the Agency receives enquiries from Press/Media/Radio/Television or other bodies/persons, the same shall be referred by the Agency to Institute immediately on receipt of such queries.

## 8.11 Indemnification:

1. The agency shall be directly responsible to indemnify the Institute against all charges, dues, claims, etc. arising out of the disputes relating to the dues and employment of the personnel deployed and further for any claim/compensation against all damages and accidents caused due to negligence on the part of the agents, employees and other personnel of the agency.

2. That the contractor shall keep the IITK indemnified against all claims whatsoever in respect of the employees deployed by the contractor. In case any employee of the contractor so deployed enters in dispute of any nature whatsoever, it will be the primarily responsibility of the contractor to contest the same. In case IITK is made party and is supposed to contest the case, IITK will be reimbursed for the actual expenses incurred towards Counsel Fee and other expenses which shall be paid in advance by the Contractor to IITK on demand. Further, the contractor shall ensure that no financial or Any other liability comes on IITK in this respect of any nature whatsoever and shall keep IITK indemnified in this respect.

## 8.12 Force Majeure:

If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosion, epidemics quarantine restriction, strikes, lockouts or acts of god (hereinafter referred to as events) provided notice of happenings of any such event, is served by party seeking concession to the other as soon as practicable, but within 21 days from the date of occurrence and termination thereof. Provided the Party satisfies Institute adequately of the measures taken by it. Neither party shall, by reason of such event, be entitled to terminate this contract, nor shall either party have any claim for damages against the' other in respect of such non-performance or delay in performance. Further, the services under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist and the decision of Institute as to whether the services have to resume or not shall be final and conclusive, provided further, that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, Institute may at his option, terminate the contract.

## 8.13 Dispute resolution

1. The institute reserves the right to amend rules whenever and wherever considered necessary and appropriate. The same shall be intimated to the agency in due course.
2. Any dispute arising out of and in relation to this agreement shall be referred to the arbitration by sole arbitrator to be appointed by Director of the Institute. The arbitration would be conducted and governed by and under the provisions of Arbitration Act, 1996 and its amendments. Any legal dispute will be subject to jurisdiction of Kanpur Courts only and no other court shall have the jurisdiction.
3. Any dispute arising out of and in relation to this agreement shall be referred to the arbitration by sole arbitrator to be appointed by Director of the Institute. The arbitration would be conducted and governed by and under the provisions of Arbitration Act, 1996. Any legal dispute will be subject to jurisdiction of Kanpur Courts only and no other court shall have the jurisdiction.

## 8.14 Arbitration

1. Except as otherwise provided anywhere in this Agreement, if any dispute, difference, the question of disagreement or matter, whatsoever, arises between the parties, as to the meaning, operation or effect of the Agreement or out of or relating to the Agreement or breach thereof, the same shall be referred to a Sole Arbitrator, to be appointment by the Director of the Institute at the time of the dispute.
2. If the Arbitrator, to whom the matter is originally referred, dies or refuses to act or resigns for any reasons from the position of arbitration, it shall be lawful for the Director of the

Institute to appoint another person to act as Arbitrator in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by its predecessor, provided both the parties consent to this effect, failing which, the arbitrator shall be entitled to proceed on the matter de- novo.

3. It is a term of the Agreement that the party invoking the arbitration shall specify all disputes to be referred to arbitration at the time of invocation of arbitration under the clause.
4. It is a term of the contract that the cost of arbitration shall be borne by the parties themselves.
5. The place of the arbitration shall be Kanpur Nagar, Uttar Pradesh, India.
6. Subject as aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications, amendments or re-enactment thereof and rules made thereunder and for the time being in force, shall apply to the arbitration proceeding under this clause.
7. Except as otherwise provided anywhere in this Agreement, the Arbitration proceedings shall be conducted in English and the Agreement shall be constructed, interpreted and governed by the law of India, for the time being in force.

## 8.15 Jurisdiction of Courts

The court(s) at Kanpur Nagar, Uttar Pradesh, shall have the exclusive jurisdiction to try any as all the disputes(s) between the parties arising out this Agreement.

## 8.16 E&M Works

1. In interpreting the specifications, the following order of decreasing importance shall be followed in case of contradictions:

   (a) Schedule of quantities

   (b) Technical specifications of the NIT

   (c) Approved Drawing (If any)

   (d) CPWD General specification Part – I (Internal) 2014, BIS Codes amended up to date, practices

   (e) CPWD General Specifications for Electrical Works–Part-II(External), 2014 amended up to date.

   (f) Relevant IS or other international code in case IS code is not available.

   (g) Indian Electricity Act 2003 and Indian Electricity Rules 1956 amended up to date.

   (h) Local Fire Regulations applicable at the place of installation. Relevant and applicable foreign standards and specifications amended up to date.

   (i) Any other relevant act or rules and local by-laws.

2. contractor will identify one of the supervisors for taking care of implementation of Safety systems.

3. Smoking is strictly prohibited at workplace.

4. Nobody is allowed to work without wearing safety helmet. Chinstrap of safety helmet shall be always on. Drivers, helpers and operators are no exception.

5. No one is allowed to work at or more than three meters height without wearing safety belt and anchoring the lanyard of safety belt to firm support preferably at shoulder level.

6. No one is allowed to work without adequate foot protection.

7. Usage of eye protection equipment shall be ensured when workmen are engaged for grinding, chipping, welding and gas-cutting. For other jobs as and when site safety co-coordinator insists eye protection has to be provided.

8. All safety appliances like Safety shoes, Safety gloves, Safety helmet, Safety belt, Safety goggles etc. shall be arranged before starting the job. .

9. All excavated pits shall be barricaded & barricading to be maintained till the backfilling is done. Safe approach to be ensured into every excavation.

10. Adequate illumination at workplace shall be ensured before starting the job at night.

11. All the dangerous moving parts of the portable / fixed machinery being used shall be adequately guarded.

12. Ladders being used at site shall be adequately secured at bottom and top. Ladders shall not be used as work platforms.

13. Material shall not be thrown from the height. If required, the area shall be barricaded and one person shall be posted outside the barricading for preventing the trespassers from entering the area.

14. Other than electricians no one is allowed to carry out electrical connections, repairs on electrical equipment or other jobs related thereto.

15. All electrical connections shall be made using 3 or 5 core cables, having a earth wire.

16. Inserting of bare wires for tapping the power from electrical sockets is completely prohibited.

17. A tools and tackles inspection register must be maintained and updated regularly.

18. Debris, scrap and other materials to be cleared from time to time from the workplace and at the time of closing of work every day.

19. All the unsafe conditions, unsafe acts identified by contractors, reported by site supervisors and / or safety personnel to be corrected on priority basis.

20. No children shall be allowed to enter the workplace.

21. All the lifting tools and tackles shall be stored properly when not in use.

22. Clamps shall be used on Return cables to ensure proper earthling for welding works.

23. Return cables shall be used for earthling.

24. All the pressure gauges used in gas cutting apparatus shall be in good working condition.

25. Proper eye washing facilities shall be made in areas where chemicals are handled.

26. Connectors and hose clamps are used for making welding hose connections.

27. All underground cables for supplying construction power shall be routed using conduit pipes.

28. Spill trays shall be used to contain the oil spills while transferring / storing them.

29. Tapping of power by cutting electric cables in between must be avoided. Proper junction boxes must be used.

30. All the E&M works shall be carried out as per direction and to the satisfaction of the Engineer-in-charge.

31. If the specifications for any item or its component are not available in the CPWD specifications cited above, relevant BIS specification as amended up to date shall be followed, whether or not the specific reference of a particular BIS specification has been made in this specification/ tender document.

32. Wherever any reference to any Indian Standard specification occurs in the document relating to this contract the same shall be inclusive of all amendments issued there to or revisions thereof, if any, up to the date of opening of tenders.

33. All materials should conform to relevant BIS specifications wherever the same exists in absence of stipulation in this tender document.

34. Where manufacturers furnish specific instructions / recommendations relating to the materials used in this job and/or their installation, covering points not specifically mentioned in these documents, these instructions shall be followed in all cases and shall be deemed to be included in the schedule of work whether they have been specifically mentioned or not.

35. All chase cuttings in the wall, for recessed conduits & boxes and drilling the holes shall be done with power operated machines only. No chase shall be allowed to be cut manually with the use of hammer & chisel.

36. All cuttings in cement plaster and brick shall be made good by using cement mortar 1:3 (1 part cement, 3-part coarse sand) The cut surfaces shall be repaired by an experienced mason only so as to match the repaired plaster with the original. All such repaired surfaces shall be cured for 3 to 4 days to keep the surfaces wet, using water spray machine (hand/motor operated) and avoid unnecessary flooding of the area.

37. The structural and architectural drawings shall at all times be properly co-related before executing any work.

38. For the purpose of recording measurements and preparing running account bills, the abbreviated nomenclature indicated in the publications Abbreviated Nomenclature of Items of DSR 2022 shall be accepted. The abbreviated nomenclature shall be taken to cover all the materials and operations as per the complete nomenclature of the relevant items in the agreement and relevant specifications. In case of items for which abbreviated nomenclature is not available in the aforesaid publication and also in case of extra and substituted items for which abbreviated nomenclature are not provided for in the agreement, full nomenclature of item shall be reproduced in the measurement books and bill forms for running account bills. For the final bill, however, full nomenclature of all the items shall be adopted in preparing abstract in the electronic measurement books and in the bill forms.

39. Prior to dispatch of the lifts, the Institute reserves the right to inspect the same at the manufacturer‘s works and the contractor shall provide and secure every reasonable access and facility at the manufacturers works for inspection, for witness of all acceptance and routine tests as per relevant Indian/International Standards. Contractor shall give a reasonable notice of about 15 days for the purpose of test, and witness of all major equipment‘s. The testing charges shall be borne by the bidder. The visiting & lodging expenses shall be borne by the Institute and not to be loaded into the contract except the testing charges. The contractor shall only facilitate the inspection at manufacturing works

40. Pre-commissioning test: All routine tests shall be carried out on the lift. Protective & measuring devices should be checked for calibration. The checklists and pre commissioning tests for different equipment‘s have to be provided by the lowest tenderer at the time of equipment‘s specification approval.

41. The Contractor shall within two weeks after award of the work submit the following

drawings in quadruplicate for approval by the Engineer In Charge.

☐ Layout drawings showing general arrangement of elevators

☐ Schematic wiring diagrams

☐ Maintenance check charts and lubricating charts

42. These drawings shall incorporate detailed layouts of machines, motors, controllers, guide rails, counter weights, pulleys etc. Details of cut-outs, pockets, foundations etc. shall also be furnished. The Engineer In-charge of the work shall within 15 days of the submission of drawings convey comments/approval on receipt of these drawings. The Contractor shall incorporate any modifications, if found necessary by the Architect and four prints of such modified drawings shall be furnished to the Consultant within 15 days of receipt of comments/approval by the Contractor. No modifications shall be made in drawings after the same have been approved by the Engineer in Charge/Architect without

their prior consent. The manufacture shall commence work only after such approval is obtained. The Contractor shall be responsible for cost of all alteration of the works due to discrepancies or omissions in the drawings or other particulars supplied by him.

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

**No. DG/MAN/410**

**ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD**

NIRMAN BHAWAN, NEW DELHI DATED: 22.10.2021

**Subject: Addition of new Para 4.10.2 in CPWD Works Manual 2019 regarding testing charges to be borne by contractor.**

It has been noticed that following provisions are sometimes being made in the NITs / Agreements by the NIT approving authorities:

"The cost of test shall be borne by contractor/ department in the manner as below:

i. By the contractor, if the result shows that material does not conform to the relevant codes/ specification.
ii. By the department, if the results show that the material conforms to relevant codes/ specification."

It has been decided by the competent authority that testing charges shall be borne by the contractor in all cases. Accordingly following new para is added in CPWD Works Manual -2019.

| Existing Provision | Modified Provision |
|---|---|
| **4.10 Preparation of NIT**<br><br>**4.10.2 No Provision** | **4.10 Preparation of NIT**<br><br>**4.10.2 Testing charges to be borne by contractor**<br><br>**Following provision shall be incorporated by the NIT approving authority in the NIT:**<br><br>**All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor. The NIT shall have list of approved laboratories for testing as approved by ADG / SDG.** |

This issues with the approval of competent authority.

(वी.पी. साहु) 22.10.2021

अधीक्षण अभियंता(सी.एंड एम.)

Issued from file No. CSQ/CM/16(1)/2021 e-file 9116587

प्रतिलिपि: सभी केलोनिवि तथा लोनिवि दिल्ली के अधिकारियों को आवश्यक सूचना एव कार्यवाही हेतु।(केलोनिवि वेबसाईट के माध्यम से).