



भारतीय प्रौद्योगिकी संस्थान इंदौर
Indian Institute of Technology Indore

*Infrastructure
Development
Office*

INDIAN INSTITUTE OF TECHNOLOGY INDORE

SIMROL, KHANDWA ROAD, INDORE 453552

www.iiti.ac.in



TENDER DOCUMENT
FOR

**Installation, Testing, Commissioning of Freight
Lifts at PHY-3 and PHY-1 with statutory
clearances and making operational freight lift at
CSE-1 at IIT Indore**
(At Risk & Cost)

NIT No. IITI/IDO/PR/E/NIT/SIL/R&C/Lift/2020-21/08

Last date of Submission: December 08, 2020





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Name of Work: - Installation, Testing , Commissioning of Freight Lifts at PHY-3 and PHY-1 with statutory clearances and making operational freight lift at CSE-1 at IIT Indore (At Risk & Cost).

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INDIAN INSTITUTE OF TECHNOLOGY INDORE

NOTICE INVITING TENDER

The Project In-Charge, IIT Indore invites item rate bids in single bid system for following work:

NIT No.: IITI/IDO/PR/E/NIT/SIL/R&C/Lift/2020-21/08

Name of Work: Installation, Testing , Commissioning of Freight Lifts at PHY-3 and PHY-1 with statutory clearances and making operational freight lift at CSE-1 at IIT Indore (At Risk & Cost).

Estimated Cost : ₹ 27,71,900

Earnest Money: ₹ 55,438

Time of Completion: 45 Days.

Date of availability of tender document for download from 18.11.2020 to 08.12.2020. (17:00 hrs) can be seen on website https://www.iiti.ac.in/tender_estate, and downloaded free of cost and shall be submitted online on website central public procurement portal (CPPP) <https://eprocure.gov.in/eprocure/app>.

No Pre-bid meeting will be held, however queries can be sent on email ido.tender@iiti.ac.in

For Site visit, kindly send the request on ido.tender@iiti.ac.in and timing will be between 10 AM and 4 PM from 23.11.2020 to 26.11.2020.

Date of submission of bids Up to 5.00 PM on 08.12.2020.

Time and date of opening of eligibility (technical) bid: 09.12.2020 at 5:00 PM





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INFORMATION AND INSTRUCTIONS FOR BIDDERS

The Project in Charge, IIT Indore on behalf of IIT Indore invites online item rate tenders from eligible firms / contractors of repute in single bid system for the following work:

Sl.		Name of work & Location	Estimated cost put to tender	Earnest Money	Period of Completion	Site Visit	Last date & Time of submission /uploading of eligibility and financial bids and other documents as specified	Time & date of opening of Eligibility bid
1	IIT/IDO/PR/E/NIT/SIL/R&C/Lift/2020-21/08	Installation, Testing, Commissioning of Freight Lifts at PHY-3 and PHY-1 with statutory clearances and making operational freight lift at CSE-1 at IIT Indore (At Risk & Cost).	Rs. 27,71,900	Rs. 55,438	45 Days	10 am to 4 pm at IIT Indore from 23.11.2020 to 26.11.2020	Up to 5.00 PM on 08.12.2020.	On 09.12.2020 at 5 PM

1. Contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted.

(a) Should have satisfactorily completed the similar works in CPWD / MES / MPPWD / Central PSUs / IITs / IIMs / IISERs/ any private establishment as mentioned below during the last five years ending previous day of last date of submission of bids.

Three similar works each costing not less than Rs.11.08 Lakh

or

Two similar works each costing not less than Rs.16.63 Lakh

or

One similar work costing not less than Rs 22.17 Lakh

Eligible similar work shall mean works of **"Supply, Installation, Testing & commissioning freight lifts"**.

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 previous day of last date of submission of bids.

(i) Should have an average annual financial turnover of 30 Lakhs during the last three years ending March 31, 2020.

(ii) Should not have incurred any loss (profit after tax should be positive) in more than two years during the last five years ending March 31, 2020.

(iii) Should have a solvency of Rs. 11.08 Lakhs

(iv) Should have valid 'A' electrical contractor license from Govt. of M.P. or Govt. of India.

(v) Should have GST registration certificate.

(vi) Should have EPF registration certificate.

(vii) Should have ESIC registration certificate.





- (viii) Should have PAN CARD registration certificate.
(ix) Should have company/firm registration certificate.
(x) Should have Building & other construction works (BOCW) registration certificate.
(xi) Should have labor license registration certificate.
(xii) Only OEM or authorized vendor/channel partner certified by OEM.
2. 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 and should submitted with technical bid.
3. Information and Instructions for bidders posted on website shall form part of tender and bid document.
4. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms & conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website stated above.
5. The amount of EMD will be paid by online mode only.
Earnest Money Deposit (EMD) / Bid Security (BS) have to be submitted by bidders except those who are registered with:-
A. Micro and Small Enterprises (MSEs)
B. Central Purchase Organization (CPO)
C. Concerned Ministry / Department.
D. Startups as recognized by Department of Industrial Policy & Promotion (DIPP).
- a) In such case, copy of the certificate showing registration with the above-mentioned institutions to be uploaded in Cover-I (technical bid) of the e-tender in PDF format.
b) In case the unit is not covered as above, the EMD should be submitted online via <https://www.onlinesbi.com/sbicollect/icollecthome.htm> and the payment reference should be attached in PDF with Cover I.
c) The EMD will be returned to the unsuccessful bidders after the orders are placed with the successful bidder.
d) The EMD will be forfeited if the bidder fails to accept the order based on his/her offer/bid or fails to supply the items.
e) No interest will be payable by the Purchaser on the Earnest Money Deposit. The earnest money of all the unsuccessful tenderers will be returned to them after finalization of order or immediately after completion of validity of the bid. The Earnest Money of successful bidder shall be returned on receipt of Performance Security. If the successful bidder fails to furnish the performance security or fails to supply the item as per Order terms and conditions within stipulated period, the earnest money shall be liable to be forfeited by IIT Indore
6. The tender can only be submitted after uploading the mandatory scanned documents as per list given.





7. Documents to be submitted with technical bid:

(i) Copy of Certificate of Work experience, Certificate of Financial Turnover from Chartered Accountant, Bank Solvency Certificate and other documents mentioned above shall be submitted and all documents mentioned in **ELIGIBILITY BID DOCUMENTS** in the prescribed formats of Form 'A' to 'G' and Annexure 'A' to 'F' along with certified copies of supporting documents shall also be submitted. At the time of submission of bid contractor shall submit 'Affidavit / Certificate from CA mentioning Financial Turnover of last 5 years or for the period as specified in the bid document and further details, if required shall be asked from the Contractor after opening of Eligibility bid documents. There is no need to upload entire voluminous balance sheet.

(ii) Bid documents submitted by intending bidders shall be opened only of those bidders, whose Earnest Money Deposit and other documents submitted are found in order.

9. The Eligibility 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 eligibility bid shall be communicated to them at a later date.

10. IIT Indore reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criteria.





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Notice Inviting Tender

Project in Charge IIT Indore on behalf of IIT Indore invites item rate bids from eligible firms/contractors of repute in two bid systems for the work of **"Installation, Testing , Commissioning of Freight Lifts at PHY-3 and PHY-1 with statutory clearances and making operational freight lift at CSE-1 at IIT Indore (At Risk & Cost)."**

1.

1.1 The work is estimated to a composite cost of: ₹ 27,71,900 /- this estimate, however, is given merely as a rough guide.

1.2. Criteria of eligibility for contractors: Same as Mentioned in earlier pages.

1.3 To become eligible for issue of bid, the bidder shall have to furnish an affidavit as under: -

I/We undertake and confirm that eligible similar works(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 IIT Indore in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

- 2 Agreement shall be drawn with the successful bidder on prescribed Form No. CPWD 8 modified / amended up to last date of receipt of tender, Bidder shall quote their rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be 45 days from the date of start as defined in Schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available at IIT Indore
5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form, 2014 can be seen on website mentioned on earlier pages.
- 6 *Earnest Money will be paid in the form of online mode only and other details were mentioned in earlier pages.*
- 7 **Copy of certificate of work experience, Certificate of financial turnover from Chartered Accountant, Bank Solvency Certificate and other documents mentioned shall be submitted within the period of bid submission and all documents mentioned in ELIGIBILITY BID DOCUMENTS in the prescribed formats of Form 'A' to 'G' and Annexure 'A' to 'F' along with certified copies of supporting documents shall also be submitted At the time of submission of bid contractor must submit Affidavit / Certificate from CA mentioning Financial Turnover of last 5 years or for the period as specified in the bid document and further details, if required, shall be asked from the Contractor after opening of Eligibility bid documents.**





10. The bid submitted shall become invalid and shall not be refunded if:
- The bidder is found ineligible.
 - The bidder does not deposit EMD receipt
 - The bidder does not submit all the documents (including service tax registration/VAT registration/Sales Tax registration) as stipulated in the bid document including the copy of receipt for deposition of EMD.
 - If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.
 - If a tenderer quotes nil rates against each/ any 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.**
11. The contractor whose bid is accepted will be required to furnish performance bank guarantee of **5% (Five Percent)** of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F' including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The Earnest Money deposited along with bid shall be returned after receiving the aforesaid performance guarantee. **The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses / registrations or proof of applying for obtaining labor licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. if applicable and also ensure the compliance of aforesaid 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'.**
12. The description of the work is as follows:
The scope of works includes "Installation, Testing , Commissioning of Freight Lifts at PHY-3 and PHY-1 with statutory clearances and making operational freight lift at CSE-1 at IIT Indore (At Risk & Cost)."
- Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bids. A bidder shall be deemed to have full knowledge of the site 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 it has read this notice and all other contract documents and has made itself 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 it by the Government and local conditions and other factors having a bearing on the execution of the work.
13. The competent authority on behalf of the Board of Governance of IIT Indore does not bind itself to accept the lowest or any other bid and reserves to itself the authority to





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reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.

14. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bid submitted by the contractors who resort to canvassing will be liable to rejection.
15. The competent authority on behalf of Board of Governance of IIT Indore reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.
16. The contractor shall not be permitted to bid for works in the IIT Indore in which its near relative is posted as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive) responsible for award and execution of contracts. It shall also intimate the names of persons who are working with it in any capacity or are subsequently employed by it and who are near relatives to any Gazetted officer in the IIT Indore or in the Ministry of Education.
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 previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of its 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.
17. The bid for the works shall remain open for acceptance for a period of **90 days (Ninety days)** from the date of opening of technical bid. If any bidder withdraws its 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 IIT Indore shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the re-bidding process of the work.**
18. The Eligibility bid shall be opened first on due date and time. The time and date of opening of financial bid of contractors qualifying the eligibility bid shall be communicated to technically qualified bidders only at a later date.
19. This Notice Inviting Bid shall form a part of the contract document. The successful bidder, on acceptance of its tender by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-
 - a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid 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.
 - b) Standard C.P.W.D. Form 8 amended / modified up to last date (or other Standard C.P.W.D. Form as applicable) of receipt of bid.





TENDER

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, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings 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 respects in accordance with, such conditions so far as applicable.

I/We agree to keep the tender open for Ninety (90) days from the due date of opening of eligibility bid and not to make any modification in its terms and conditions.

A sum of Rs. (Rs.....) is hereby forwarded in online is scanned and uploaded. If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/we agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. **Further, I/we agree that in case of forfeiture of earnest money or performance guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering 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 IIT Indore in future forever. Also, if such a violation comes to the notice of Department before date of start of work, The Engineer – in – Charge shall be free to forfeit the entire amount of Earnest Money Deposited / 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 therefrom to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated #.....

Signature of Contractor

Postal Address#

Witness: #

Address: #

Occupation: #

To be filled in by the contractor/witness as applicable





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ACCEPTANCE

The above tender (as modified vide letters mentioned hereunder) is accepted by me for and on behalf of the IIT Indore for a sum of ₹. _____

(Rupees _____)

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

- a)
- b)
- c)

For & on behalf of the IIT Indore.

Signature

Dated

Designation





FORM OF PERFORMANCE SECURITY BANK GUARANTEE BOND

1. In consideration of the President of India (hereinafter called "The Government") having offered to accept the terms and conditions of the proposed agreement between..... and..... (hereinafter called "the said contractors") for the work..... (hereinafter called "the said agreement") having agreed to production of a irrevocable Bank Guarantee for Rs..... (Rupees..... only) as a security /guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement, we..... (indicate the name of the bank) (hereinafter referred to as "the Bank") hereby undertake to pay to the Government an amount not exceeding Rs..... (Rupees..... only) on demand by the Government.
2. We (Indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demure, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractors. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs..... (Rupees..... only).
3. We, the said Bank further undertake to pay to the Government any money so demanded notwithstanding any dispute or disputes raised by the contractors in any suit or proceeding pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractors shall have no claim against us for making such payment.
4. We..... (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-Charge on behalf of the government certified that the terms and conditions of the said agreement have been fully and properly carried out by the said contractors and accordingly discharges this guarantee.
5. We (Indicate the name of the Bank) further agree with the Government that the Government shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractors from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractors and to for-bear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said contractors or for any for-bearance, act of omission on the part of the Government or any





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indulgence by the Government to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).
7. We (Indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Government in writing.
8. This guarantee shall be valid upto _____ Unless extended on demand by Government. Notwithstanding anything mentioned above, our liability against this guarantee is _____ restricted _____ to Rs. _____ (Rupees _____ only) and unless a claim in writing is lodged with within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the _____ day of _____ for
(Indicate the name of Bank).





Instructions for Online Bid Submission

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. 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:
<https://eprocure.gov.in/eprocure/app>.

REGISTRATION

- 1) Bidders are required to enroll on the E- Tender module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link "Online bidder Enrollment" on the CPP Portal which 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 their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers 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 III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's 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 / e-Token.

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. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / email 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 tender, in case they want to obtain any clarification / help from the Helpdesk.

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 bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.





- 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/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 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 certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" 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.

Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that they can 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) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (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 and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected. **The vendor/firm should fill the complete details as mentioned in BOQ and exclusion of any cell of BOQ (Financial bid), the cost will be treated as inclusive of GST and other charges as mentioned in the BOQ column.**
- 4) 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.
- 5) 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. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 6) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 7) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be





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displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

- 8) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

1. Any queries relating to the 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 24x7 CPP Portal Helpdesk.

GENERAL INSTRUCTIONS TO THE BIDDERS

- 1) The tenders will be received online through portal <http://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 web site <https://eprocure.gov.in/eprocure/app> under the link "Information about DSC".
- 3) Tenderer 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- Tender at <http://eprocure.gov.in/eprocure/app>

Online Bid Form

The bidder shall complete the online bid form and the appropriate price schedule furnished in the online bidding documents, indicating, inter alia for the goods to be supplied, a brief description of the goods, their country of origin, quantity and prices.

Online Bid prices

The Bidder shall indicate on the Price Schedule the unit price and total bid prices of the goods it proposes to supply under the Contract. To this end, the Bidders are allowed the option to submit the online bids for any one or more schedule specified in the "Schedule of Requirement" and to offer discounts for combined schedules. However, Bidders shall quote for the complete requirement of goods and services specified under each schedule on a single responsibility basis, failing which such bids (for the schedule in question) will not be taken into account for evaluation and will not be considered for award.

For taking assistance for bid submission, if any

CPP Portal website: www.eprocure.gov.in
CPP Portal Help Desk Toll Free No.: 18002337315,
180030702232





GENERAL CONDITIONS OF CONTRACT

The names of concerned authorities as per GCC 2016 of CPWD should be read as below:

Sr. No.	Name of Concerned authority as per GCC of CPWD	To be read as
1	2	3
1	President of India	IIT Indore
2	Engineer-In-Charge	Project In charge
3	Director General	Director, IIT Indore
4	Department	Infrastructure Development Office, IIT Indore
5	Chief Engineer CPWD	Project In charge,
6	Director General (works)CPWD	Director, IIT Indore
7	Additional Director General	Dean of Infrastructure Development, IIT Indore
8	The Divisional Engineer	Dy. Ex. Engineer, IIT Indore

- The word "CPWD" will remain intact, wherever the rules, forms, formats, annexures, appendices, clauses, rate analysis formats, specifications etc. published by CPWD are referred.

DEFINITIONS

In the contract, the following expressions shall, unless the context otherwise requires, have the meanings hereby respectively assigned to them:

The CONTRACT shall mean the documents forming the tender and acceptance thereof together with the documents referred to therein including conditions, specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.

The WORKS OR WORK shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works, by virtue of the contract contracted, to be executed whether temporary or permanent, and whether original, altered, substituted or additional.

The SITE shall mean the land/or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.

The CONTRACTOR shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.





General Condition of Contract for CPWD works 2019 as amended up to CON/295 shall become parts & parcel of the tender documents

The Board of Governors of IIT Indore shall mean its successors also. The Engineer In-charge shall mean the Project in charge IIT Indore or his authorized representative.

The Institute shall mean the Indian Institute of Technology Indore or his nominee as notified. The Accepting Authority shall mean the Director, IIT Indore on the behalf of Board of Governors IIT Indore.

The Expected Risks shall mean risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority.

The Market Rate shall mean the rate as decided by the Engineer-in-Charge on the basis of the cost of material and labor at the site where the work is to be executed plus 15% cover all the overheads and profits.

The Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender document and the Standard Schedule of Rates of the Institute with the amendments there to issued up to the date of issue of notice inviting tenders.

The Tendered Amount shall mean the amount of the work as stipulated in the letter of award.

Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall, whenever required, include feminine gender and vice versa.

Headings to the General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.

The contractor shall be furnished, free of cost one certified copy of the contract except standard specifications, Schedule of Rates and such other printed and published documents, together with all the drawings as may be forming part of the contract. None of these documents shall be used for any purpose other than that of this contract.

WORKS TO BE CARRIED OUT

The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labor, materials, tools, plants, equipment and transport which may be required in preparation of and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labor necessary in and for the execution and completion of the work as aforesaid in accordance with good practice and recognized principles.





SUFFICIENCY OF TENDER

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all the matters and things necessary for the proper completion and maintenance of the works.

DISCREPANCIES AND ADJUSTMENT OF ERRORS

The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small-scale drawings and figured dimensions in preference to scale and special conditions in preference to General Conditions.

In the case of discrepancy between the Schedule of Quantities, the Specifications and/ or the Drawings, the following order of preference shall be observed: -

- Description of Schedule of Quantities. Particular
- Specification and Special Condition, if any.
- Drawings
- CPWD Specifications
- Indian Standard Specifications of BIS.

If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.

Any error in description, quantity or rate in the Schedule of Quantities or any omission there from shall not vitiate the contract or release the contractor from the execution of the whole or any part of the work comprised therein according to drawings and specifications or from any of his obligations under the contract.





Special conditions of the contract

The following special instructions/ conditions are applicable to tenderer.

1. The tenderer shall supply the following information along with the tender:

- Names and addresses of the clients whose similar works have been executed by the tenderer. IIT Indore reserves right to verify such credentials.
- Copy of contractor's 'A' class electrical license (wherever applicable) issued by the electrical licensing authorities of Government of M.P. /Govt. of India.
- Any other information the tenderer feels necessary to make his offer complete, without changing or without having intent to modify / change any of the tender condition to be submitted in a separate sheet.
- Deviation/Any exclusion, deviation from specification shall be clearly spelt out and listed at one place in the offer only and tenderer shall substantiate the same with appropriate reasons. In absence of same, it will be considered that tenderer has followed the specification fully in words and spirit.

2. Since the given work is the balance work in which lift has already been supplied, installed, tested and commissioned at site. Hence making lifts operational, checking all its components, overhauling, whatever required to make it functional in all respect shall be contractor's responsibility.

3. Tools, tackles, and consumables:

- Testing equipments required for the work shall be in good condition (calibrated annually) and arranged by the contractor. The testing instruments shall be of sufficient capacity and quantity as per the site requirements. The instruments like insulation tester, earth tester, earthing rods, multi-meters, testing kits, thermometer etc. shall be required at site during installation, commissioning, testing activities.
- The contractor shall be fully responsible for arranging the supply of required tools & tackles, cable crimping tools, ladders etc. In addition to above, the personal protective equipments of proper rating (PPE) like helmets, safety belts, hand gloves, safety shoes, torch, ladder etc. for all working persons shall also be arranged.

The consumable items like jelly, cotton waste, dungry cloth, emery paper, CRC & CTC and material required for housekeeping including detergents, phenyl, soap etc. shall be provided by the contractor.

4. The contractor shall employ the required number of technical and non-technical manpower. During contract period, the contractor shall depute qualified, experienced and competent manpower as per the site set-up/staff requirement for executing the work. During execution of installation, commissioning, testing activities, in case some additional manpower is required, contractor shall provide the same free of cost. For entry in institute, contractor shall submit the details of the employees i.e. Address proof, I.D. proof, photo etc. for gate





pass of all deputies.

5. The contractor shall not be entitled for any additional payment during the tenure of the contract due to increase in cost of manpower or any.
6. The price offered by the contractor shall include the charges for any minor maintenance, the details of which may not be explicitly available in the tender specification, but it is essential for this work.
7. **Housekeeping:** The contractor shall maintain the installations, commissioning, testing activities clean and tidy inside as well as around the installations and substation buildings. This shall also include sweeping, mopping, cleaning of cobwebs, removal of scrap generated during contract period, etc. in the substations building. All required materials for housekeeping like broom, cobweb broom, mop, bucket, soap, detergents, phenyl, etc. shall be arranged by the contractor. No rags and waste etc. shall be thrown near the building. This shall be deposited in the scrap yard and dustbins provided nearby, as per the department instructions. Also, furniture and fixture therein shall be maintained.

It is the responsibility of the contractor to hand over the entire system to IITI/PMC on completion of the contract period in working condition.
8. The final handing over / taking over will be done after joint inspection by IITI/PMC and contractor on the completion of contract period. The liability towards damage/ replacement shall be limited to 05% (Five percent) of the order value.
9. **Inspection:** Inspection will be carried out by IITI as and when required. Inspection by statutory bodies/ authorities will be under the scope of contractor. Contractor shall intimate IITI authority the schedule of such statutory bodies/ authorities' inspection.

10. Safety

- Specifications and standards: The installations, commissioning, testing activities shall be in conformity with relevant Indian Standard specification, National Electric codes, Indian Electricity Rules.
- The contractor, his agents, representatives, workmen etc. shall strictly observe the orders pertaining to fire/LV/HV/EHV (Electrical) precautions prevailing within the restricted areas/electrical substations etc.
- The contractor, his agents, representatives, workmen etc. shall strictly adhere to the fire/electric shock precautionary measures while working near the explosive areas/HV/LV/Electrical substation areas. During such times, the workmen should be headed by their site supervisor as a precautionary measure. The regular team of the contractor shall be very well aware of firefighting, Cardio-Pulmonary Resuscitation, first aid etc.
- While working at height, Personal Protective Equipments (PPE) like safety belts, helmet, ladder and scaffoldings etc. shall be used as per the recommended safety guidelines.





11. Accident or injury to workmen:

- IITI shall not be responsible for any injury or loss of any workers of the contractor that may take place while on work. Any compensation or expenditure towards treatment for such injury or loss of life shall be the sole responsibility of the contractor. The contractor is solely responsible for any damage or injury or accident that may occur to any of his personnel working under this contract. He will not claim any compensation from IITI.
- In order to meet any type of emergency, a dedicated vehicle along with driver shall be made available by the contractor in IIT Indore.

12. Theft of Parts:

Contractor shall be fully responsible for theft, burglary, fire or any mischievous deeds by his workers/ staff and shall replace the items under such category. Any loss occurred due to negligence will be recovered from the contractor. Security/ Safety of all installations in substations will be the responsibility of contractor.

13. Materials, Consumables & Tools etc.:

For performance of contract, the Contractor will arrange all the materials/ consumables, tools & machines/ testing equipment's required for execution of said jobs, which will be included in quoted rates. No extra payment for the same will be made by the Institute.

- 14.** During the period of installations, commissioning, testing activities, no extra payment what so ever towards replacement of parts or consumables etc. shall be entertained. It shall be included in rates quoted.

- 15.** Rates quoted in the financial bid must be inclusive of all central, state and local taxes etc. including trade tax on works contract. Rate are also inclusive of payment to the Labor Department in accordance with the prevailing Labor law, including all statutory liability fixed by the Labor commissioner or any other law enforcement agency. Also, if new taxes are introduced, same also would be applicable.

- 16.** All the statutory fees/ charges need to be paid for functional/ operational of the equipments shall be paid to government bodies by contractor. IITI will reimburse the same after the submission of original receipt to IITI.

- 17.** Contractor shall be solely responsible for payment of wages/salaries and allowances to their personnel as per the rules or act applicable under government order. All central, state, local laws & bye laws applicable will be observed by the contractor and IIT Indore will be kept indemnified of such payable by the contractor.

- 18.** Any unauthorized person (or visitor) shall not be allowed to come inside the campus without the approval of Engineer in charge and Security officer. Staff deployed at IIT Indore will get the temporary ID card and which shall be available with the concern at the time of duty. For the purpose of proper identification of the employees of the contractor deployed for the work, contractor shall issue identity cards bearing their photographs/ identification etc. and such





employees shall display their identity cards at the time of duty.

19. Engineer-in-charge, IIT Indore shall be at liberty to carry out surprise check on the persons as deployed by the contractor in order to ensure that persons deployed by him are doing their duties.
20. For performing the assigned work, the contractor shall deploy medically and physically fit persons (Preferably below the age of 50). The contractor shall ensure that the persons are punctual and disciplined and remain vigilant in performance of their duty. Persons so engaged by the contractor shall be from amongst properly trained electrician of high integrity and good conduct and shall be conversant in the local language i.e. Hindi. In no circumstances, persons below 18 years of age should be employed.
21. The contractor shall further keep the IIT Indore indemnified against any loss to the IIT Indore property and assets. IIT Indore shall have further right to adjust and/or deduct any of the amounts as aforesaid from the payments due to the contractor under this contract.
22. The contractor shall ensure that the persons so deployed do not allow any property of the IIT Indore related to Equipment's to be taken out of the premises without a Gate Pass signed by the Engineer in-charge of the IIT Indore.
23. Saturdays / Sundays should be utilized primarily for the installations, commissioning, testing activities, where shutdown is required, in consultation with & approval of the engineer-in-charge of IIT Indore.
24. In case, any staff not found up to the mark and not able to work properly or behave improperly, he will have to be changed as per the instruction of the Engineer in charge, IIT Indore.
25. **SUSPENSION:** - IITI may by written notice of suspension to the contractor, suspend all payments to contractor hereunder if the later fails to perform any of its obligations under this contract, including the carrying out of the services provided that such notice of suspension (i) shall specify the nature of the failure and (ii) request the contractor to remedy such failure within the period not exceeding fifteen (15) days, after such notice of suspension.
26. **TERMINATION:** - Termination to the contractor may be given after the occurrence of any of the events specified below:
- If the contractor fails to remedy a failure in the performance of their obligations.
 - If the contractor fails to comply with any final decision reached as a result of arbitration proceedings.
 - If the IITI, in its sole discretion and for any reason whatsoever, decides to terminate this contract.
 - If the contractor, in the judgement of the IITI has engaged in corrupt or fraudulent



practices in executing the contract.

- e) In case the contract is terminated, the balance amount of fee if any, paid earlier (advance) shall be paid back by the contractor to IIT Indore within thirty days of termination letter, failing which the same shall be recovered by encashing the existing performance bank guarantee/security deposit submitted by contractor.
27. Approval of the statutory bodies like CEA/ local bodies and shall be deemed to be included in the contract. The contractor shall notify IIT Indore in writing about such approvals to be taken and inform the compliance of the same. The fees paid to the CEA/ local bodies as per the challan will be reimbursed to the contractor by IIT Indore. The original challan and approvals shall be handed over to IIT Indore.
28. The persons deployed by the contractor for the services mentioned above shall be the employees of the contractor for all intents and purposes and that the persons so deployed shall remain under the control and supervision of the contractor.
29. The contractor shall at his own cost, if required, take necessary insurance cover up to the handing over in respect of the aforesaid services rendered to IIT Indore and shall comply with the statutory provisions of Contract Labor (Regulation & Abolition) Act, 1970; Employees State Insurance Act; Workman's Compensation Act, 1923; Payment of Wages Act, 1936; The Employees Provident Fund (and Miscellaneous Provisions) Act, 1952; Payment of Bonus Act, 1965; The Minimum Wages Act, 1948; Employer's Liability Act, 1938; and/or any other rules/ regulations and/ or statutes that may be applicable to them. The contractor shall indemnify the Institute against all claims which may be made upon the Institute whether under the aforesaid statutes or any other statute in force during the currency of this contract.
30. Contractor shall deploy his persons in such a way that they get weekly rest. The working hours / leave, for which the work is taken from them, do not violate relevant provisions of Shops and Establishment Act. The contractor shall arrange to provide reliever equally qualified in case of absence/leave/off etc. The contractor shall in all dealings with the persons in his employment have due regards to all recognized festivals, days of rest and religious or other customs. In the event of the contractor committing a default or breach of any of the provisions of the Labor Laws including the provisions of Contract Labor (Regulation and Abolition) Act, 1970 as amended from time to time or in furnishing any information, or submitting or filling any statement under the provisions of the said regulations and rules which is materially incorrect, he shall without prejudice to any other liability pay to the Director, IIT Indore, a sum as may be claimed by IIT Indore.
31. Contractor shall be deposit 5% of the contract value along with the acceptance of contract as performance bank guarantee (format for performance bank guarantee will be provided to the successful bidder) to IIT Indore and this will be refunded after the successful completion of the contract. The validity of the performance bank guarantee should be beyond 180 days of warranty/defect liability period.





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- 32.** Contractor shall keep the IIT Indore 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 primary responsibility of the contractor to contest the same. In case IIT Indore is made party and is supposed to contest the case, the IIT Indore will be reimbursed for the actual expenses incurred towards Counsel fee and other expenses, which shall be paid in advance by the contractor to IIT Indore on demand. Further, the contractor shall ensure that no financial or any other liability comes on IIT Indore in this respect of any nature whatsoever and shall keep IIT Indore indemnified in this respect.
- 33.** No accommodation & transportation facility will be provided by the IIT Indore.
- 34. PAYMENT:** - Payment will be made as per clause 1 of commercial conditions after satisfactory completion of services and on presentation of bill. No advance payment will be made. Income tax and all other statutory tax deduction at source as per the rules in force will be deducted from the bill.
GST: - The rate quoted by the contractor shall be inclusive of all taxes (including GST) and other charges.
- 35.** Institute reserves the right to curtail or enhance the scope of work either by deletion of certain items entirely or by reducing/ increasing the quantities of certain items as required and reviewed by the Institute from time to time and therefore, the final value of the work shall be worked out and paid to the extent of work actually carried out.
- 36.** In the event of any question, dispute/ difference arising under the agreement or in connection herewith (except as to matters the decision of which is specially provided under the agreement) the same shall be referred to the sole arbitration by the Director, IIT Indore & his decision will be final and binding to the contractor.
- 37.** The Arbitrator may give interim awards and/or directions, as may be required, Subject to the aforesaid provisions the Arbitrator & Conciliation Act, 1996 and the rules made hereunder and any modification thereof from time to time being in force shall be deemed to apply to the arbitration proceedings under this clause.
- 38. JURISDICTION:** Disputes of any nature that may be arise in connection with the execution of this order shall be governed by the laws of India and subject to the jurisdiction of courts situated in Indore, India only.

Place:

Name:

Date:

Signature





BRIEF PARTICULARS OF THE WORK

COMMERCIAL AND ADDITIONAL CONDITIONS

GENERAL:

This specification covers "Installation, Testing , Commissioning of Freight Lifts at PHY-3 and PHY-1 with statutory clearances and making operational freight lift at CSE-1 and PHY-2 Passenger lift at IIT Indore (At Risk & Cost)."

Location: The work is to be executed in the premises of IIT Indore.

These conditions are intended to amplify the General Conditions of Contract and shall be read in conjunction with the same. For any discrepancy between the General Conditions and these Special Conditions, the more stringent shall apply.

These additional specifications are to be read in conjunction with the specifications given in the tender. In case any item/ items or part thereof are not covered under these specifications, the same shall be carried out as per relevant part of the CPWD General Specification for Electrical Works Part-I Internal -2016, Part –II External -2005 amended up to dates, relevant electricity act BIS/IEC and as per direction of Engineer –in - Charge. These additional specifications are to be read in conjunction with above and in case of variations- specifications given in this additional condition shall apply. However, nothing extra shall be paid on account of these additional specifications and conditions, as the same are to be read along with schedule of quantities for the work. In case of discrepancy among the specifications/conditions as mentioned above the precedence given in general condition of contract shall be followed.

The tenderer should in his own interest visit the site and get familiarize with the site conditions before tendering.

No T&P shall be issued by the Department and nothing extra shall be paid on account of this.

COMMERCIAL CONDITIONS:

Type of Contract: The work to be awarded by this tender shall be treated as indivisible works contract.

Submission and opening of Tenders:

- (i) The tender shall be submitted through e-tendering online.
- (ii) The tenderers are advised not to deviate from the technical specifications / items, commercial terms and conditions of NIT like terms of payment, guarantee, arbitration clause, escalation.

The Eligibility documents will be uploaded electronically which shall be comprised of the following:

- i) The EMD as per described in NIT.





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- ii) Documents meeting eligibility criterion given in the "INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING".

The price bid will be opened through e-tendering only, at the defined time and date of only those firms who are eligible.

Firms should clearly note that price bids with any condition including that of conditional rebates shall be rejected forthwith.

The department reserves the right to reject any or all the price bids and call for fresh prices /tenders as the case may be without assigning any reason.

TERMS OF PAYMENT

Following payment terms shall be applicable.

- No advance payment shall be made.
- Following percentage of contract rates shall be payable against the stage of work shown herein:
- Payment related to "Installation, Testing , Commissioning of Freight Lifts at PHY-3 and PHY-1 with statutory clearances and making operational freight lift at CSE-1 and PHY-2 Passenger lift at IIT Indore (At Risk & Cost)."

Sr. No.	<u>Construction Stage</u>	Amount in % of the quoted price
	<u>For BOQ Sr. No. 01 & 02</u>	
1.	After successful Installation	30%
2.	After successful Testing and commissioning	15%
3.	After proper handover with all necessary documents and original safety license	10%
	<u>For BOQ Sr. No : 03</u>	
1	After successful Testing and commissioning	40%
2	After proper handover with all necessary documents	15%
	<u>DLP Stage</u>	
	For each lift, 15 % will be paid on completion of one year of DLP from the date of handing over.	
	Completion of first year of DLP	15%
	Completion of second year of DLP	15%
	Completion of third year of DLP	15%

Deduction of security deposit from above shall be governed by standard/ relevant clause of the CPWD 7/8.

For other items, the terms of payment will be decided by the Engineer- In-Charge and shall be binding on the contractor.





1. Termination for Insolvency

The Department may at any time terminate the Contract by giving written notice to the Contractor, if the Contractor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Department.

2. Termination on account of willful misrepresentation

The contract is liable to be terminated if at any stage it is found that the contract was obtained by willful misrepresentation in terms of documents or undertakings by the contractor.

3. Settlement of Disputes

If any dispute or difference of any kind whatsoever shall arise between the Department and the Contractor in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

- a. If, after thirty (30) days the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Department or the Contractor may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.
- b. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the contract.
- c. Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the GCC.
- d. Notwithstanding any reference to arbitration herein,
 - i. the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
 - ii. the Department shall pay the Contractor any monies due the Contractor for the part of work which is not under dispute.

4. Limitation of liability

Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6,

- i. The Contractor shall not be liable to the Department, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Department and





- ii. The aggregate liability of the Contractor to the Department, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

5. Governing language

The contract shall be written in English. All correspondence and other documents pertaining to the contract which are exchanged by the parties shall be written in the same language.

6. Applicable Law The applicable laws shall be that of Union of India

Notices

Any notices given by one party to the other pursuant to this Contract shall be sent to other party in writing or by E-mail, tele-fax, or facsimile and confirmed in writing to the other party's address as below:

Project in Charge (I)

Infrastructure Development Office,
IIT Indore.

A notice shall be effective when delivered or on the notice's effective date, whichever is later.

7. Rates

The rate quoted by bidder, shall be firm and inclusive of all taxes (including GST etc.), duties and levies and all charges for packing, forwarding insurance, freight and delivery, installation, testing, commissioning etc. at site including temporary constructional storage, risks, overhead charges, general liabilities/obligation etc. A certificate of TDS shall be issued by the department to the contractor. The tendered rates must be inclusive of all such taxes.

Taxes and Duties

- A local Contractor shall be entirely responsible for all taxes, duties, license fees, etc, incurred until delivery of the contracted Goods to the Department.
- Income Tax, GST, labor cess & other statutory deduction etc. shall be made at source as per the prevalent laws. The deductions of security deposit, income- Tax, etc. shall be done after calculation of the above due payments as per clauses and net payment shall be reduced accordingly.
- Contractor will be entirely responsible for all taxes, stamp duties, license fees, etc and other such levies imposed outside India, custom duties, as well as for taxes and levies to be charged in connection with supplies made from India and services performed in India, and the Department shall pay all the customs duties and import taxes in consequence of the importation of the goods.
- Contractors will be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc in connection with delivery of goods at site including incidental services



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and commissioning. Price bid submitted by the Contractor shall include all taxes in the contract price. No 'C' / 'D' form shall be issued by the Department

e. Income / Corporate Taxes in India:

- i. The Contractor shall be liable to pay all corporate taxes and income tax that shall be levied according to the laws and regulations applicable from time to time in India and the price bid by the Contractor shall include all such taxes in the contract price.
- ii. Wherever the laws and regulations require deduction of such taxes at the source of payment, the Department shall effect such deductions from the payment due to the Contractor. The remittance of amounts so deducted and issuance of certificate for such deductions shall be made by the Department as per the laws and regulations in force. Nothing in the Contract, shall relieve the Contractor from his responsibility to pay any tax that may be levied in India on income and profits made by the Contractor in respect of this contract.
- iii. The Contractor's staff, personnel and labor will be liable to pay personal income taxes in India in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

iv. CONTRACTOR INTEGRITY:

The Contractor is responsible for and obliged to conduct all contracted activities in accordance with the contract using state-of -the-art methods and economic principles and exercising all means available to achieve the performance specified in the Contract.

8. SECURITY DEPOSIT:

Security Deposit shall be deducted from each running bill and the final bill to the extent of **2.5% of the gross amount payable** subject to a maximum amount of 2.5% of the tendered value as per clause 17 of GCC. This is against defect liability period of 36 months.

9. PERFORMANCE GUARANTEE:

The successful tenderer shall submit an irrevocable performance guarantee of 5% of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement within 10 days of issued of letter of acceptance of tender. This guarantee shall be in the form of Demand draft/Pay order or irrevocable bank guarantee bond of any scheduled bank or the State bank of India in the specified format or in the form of Government security, fixed deposit receipt pledged in favor of Registrar/Executive Engineer or as specified in the letter of acceptance of tender. The performance guarantee shall be initially valid up to stipulated date of defect liability period/warranty period plus 180 days beyond. This bank guarantee shall be kept valid till the recording of completion certificate for the work by the competent authority. This guarantee shall be submitting directly through the bank.





10. CONTRACTOR'S OBLIGATIONS:

Unless otherwise mentioned in the tender documents, the following works shall be done by the contractor and therefore, their cost shall be deemed to be included in their tendered cost- whether specifically indicated in the schedule of work or not: -

- i) Complete wiring.
- ii) Making good all damages caused to the structure during installation and restoring the same to their original finish.
- iii) Minor building work necessary for installation of equipments, making opening in the wall/floors/slabs/tables or modifications in the existing openings wherever provided and restoring the same to their original condition/ finish and necessary grouting etc. as required. Opening in the slab/retaining walls/brick wall etc. shall be made by means of core cutting machines only.
- iv) Sealing of all floor slab/wall openings provided by the Department or made by the contractor for laying cables from fire safety points of view.
- v) Suspenders, brackets and floor/wall supports for suspending/supporting cable tray, cables etc.
- vi) Removal & disposal of the all the malba/ debris occurs during the execution of work from the site.
- vii) The Contractor is obliged to work closely with the Departments staff, act within its own authority and abide by directives issued by the Department and implementation activities.
- viii) The Contractor will abide by the job safety measures prevalent in India and will free the Department from all demands or responsibilities arising from accidents or loss of life the cause of which is the Contractor's negligence. The Contractor will pay all indemnities arising from such incidents and will not hold the Department responsible or obligated.
- ix) The Contractor is responsible for managing the activities of its personnel or sub-contracted personnel and will hold itself responsible for any misdemeanors. The Contractor will treat as confidential all data and information about the Department, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Department.

11. PATENT RIGHTS (Clause 6):

In the event of any claim asserted by a third party of infringement of copyright, patent, trademark or industrial design rights arising from the use of the Goods or any part thereof in the Department's country, the Contractor shall act expeditiously to extinguish such claim. If the Contractor fails to comply and the Department is required to pay compensation to a third party resulting from such infringement, the Contractor shall be responsible for the compensation including all expenses, court costs and lawyer fees. The Department will give notice to the Contractor of such claim, if it is made, without delay.

12. Safety Codes and Labor Regulations

i) In respect of all labor employed directly or indirectly on the work for the performance of contractor's part of work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provision, B.I.S. recommendations, factory act, workman's compensation act, CPWD code and instructions issued from time to time. Failure to provide such safety requirements would make the tenderer liable for penalty for Rs. 2000/- for each violation. In addition, the Engineer-in- charge, shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor.





ii) The contractor shall provide necessary barriers, signals and other safety measures while executing the installation or wherever necessary so as to avoid accident. He shall also indemnify Department against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian law and Regulations for any accident occurring due to any cause. The department shall not be responsible for any accident occurred or damage incurred or claims arising their form during the execution of work. The contractor shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the contractor due to the above provisions thereof.

13. Power Supply

- i. Power supply shall be provided by the department if available to contractor at one point for installation at site suitable for 5 KW load. Termination switchgears with energy meter however, shall be provided by the contractor. Further extension if required shall be done by the contractor. For final system commissioning & handing over, power supply of 3 Phase, 415 volts, or 1Phase, 230 V, 50 Hz as applicable shall be made available in the control room(s) of the respective systems. The recovery of electricity so consumed shall be made from their bill as per tariff in force.
- ii. The contractor shall not use the power supply for any other purpose than that for which it is intended for. No major fabrication work shall be done at site. Power supply shall be used only for welding/ cutting works. Power supply shall be disconnected in case of such defaults and the contractor shall then have to arrange required power supply at his cost.

14. Water Supply

The water supply required for the execution of work shall be made available by the Department as per applicable tariff/rate to the contractor.

15. Machinery for Erection

All tools and tackles required for unloading/ handling of equipments and materials at site, their assembly, erection, testing and commissioning shall be the responsibility of the contractor.

16. Compliance with Regulations and Indian Standards:

- i. All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification. In particular, the equipment and installation will comply with the following:
 - a. Factories Act.
 - b. Indian Electricity Rules.
 - c. NBC Part-4
 - d. B.I.S. & other standards as applicable.
 - e. Workmen's compensation Act.
 - f. Statutory norms prescribed by local bodies like CEA, Power Supply Co., etc.
- ii. Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture, and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.
- iii. Successful tenderer shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labor employed on the work by the tenderer. Failure to provide such safety requirement would make the





tenderer liable for penalty of Rs. 500/- for each default. In addition, the department will be at liberty to make arrangement for the safety requirements at the cost of tenderer and recover the cost thereof from him.

17. Co-ordination with other Agencies

The contractor during the execution of the works shall co-ordinate with other agencies associated work with the project and shall work in harmony with them without causing any hindrance or obstruction on the progress of work in any way.

18. Mobilization Advance:

No mobilization advance shall be paid for this work.

19. Insurance and Storage:

All consignments are to be duly insured up to the destination from manufacturer's place/warehouse at the cost of the contractor. The insurance covers shall be valid till the equipment is handed over duly installed, tested and commissioned.

20. VARIATION IN QUANTITY:

Quantities shown against each item of work or supply are tentative which may vary on either side (plus or minus). The contractor should ensure from the Engineer-in-charge the actual quantity required/ to be used/ to be supplied before bringing the materials at site. In case the actual quantity of material required at the site is less than the stipulated quantity, the contractor cannot claim to supply entire quantity stipulated in the schedule of quantities of work as well as cannot demand for payment thereof. The contractor shall therefore, be very careful about the quantity of materials to be supplied /brought at site. The decision of the Engineer-in-charge in this regard shall be final and binding on the part of the contractor.

21. Quality of Materials and Workmanship

- The components of the installation shall be such design so as to satisfactorily function under all conditions of operation.
- The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice.
- All equipments and material to be used in work shall be manufactured in factories of good repute having excellent track record of quality manufacturing, performance and proper after sales service.
- All equipments and materials to be supplied in the work shall be brand new having its date of manufacturing not more than 6 months old from the date of delivery at site with manufacturer's certificates, warrantee cards, technical catalogues, instructions, manuals and wiring diagrams, drawings etc.
- In order to ensure genuineness of equipments/materials, copy of invoice of each equipments/materials, custom clearance paper in case of imported materials duly authenticated by bidder shall be invariably produce to engineer-in-charge.

22. Care of the Building

Care shall be taken by the contractor during execution of the work to avoid damage to the building. Care shall also be taken by the contractor to avoid the damage to any of these existing service/service lines, any part of the building etc. If any damage is caused to any of the existing services/service lines, or any part of the building the same shall be repaired/rectified and made functional or restored so its original finish by the contractor immediately at his own expenses failing which the same shall be repaired/ rectified and



made functional by department at the risk and cost of the contractor. The decision of the Engineer-in-charge in this regard shall be final & binding. He shall also remove all unwanted and waste materials arising out of the installation from the site of work from time to time.

23. After Sales Services

The contractor shall ensure adequate and prompt after sales service free of cost during guarantee period, and against payment after guarantee period is over, in the form of maintenance, spares and personal as and when required during normal life span of the equipments and shall minimize the breakdown period. In case of equipment supplied by other manufacturers, the firm shall submit the guarantee from manufacturer for the same before the entire installation is taken over.

24. Liaising and Co-operation with other agencies:

The successful tenderer shall co-ordinate with other contractors and agencies engaged in the operation and maintenance of the building so as to make the execution of this works contract smooth. If any unreasonable hindrance is caused to other agencies / damage is caused to the existing installation resulting in loss of work or disruption in services during the course of work, such expenditure incurred upon restoration and loss of work shall be recovered from the successful tenderer. Water proofing of pits shall not be damaged under any circumstances.

25. All the debris due to the works shall be cleared every now and then and site shall be kept clean by the contractor at all times.
26. The electrical work shall be carried out according to the drawing & schedule supplied subject to change if any made by the Engineer –in –charge.
27. Termination of wires/cables shall be crimped properly with copper/aluminum lugs connection. All the stranded wires must be terminated to the boards/ MCB's etc. through suitable lugs by crimping for which no extra payment will be made.
28. Proper sleeving should be provided to the bare earth conductor for which no extra payment will be made.
29. All chases, holes, recess etc. for conduits and other allied work shall be done to the original finish as per requirement without any additional cost.
30. Bad - workman ship is liable to be rejected in total.
31. The contractor or his authorized representative will have to sign the site order book and comply with the remarks therein every now and then.
32. Contractor has to follow the local security/safety rules and regulations and such instructions on restricted hours of work as may be imposed on him by the department / local authorities, while working in security/restricted zones, and no claim on account of the loss of labor/ idle labor will be entertained.
33. All repairs and patch works shall be neatly carried out to match with the original finish by the contractor to the entire satisfaction of the Engineer -in-Charge.





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34. The agency has to obtained approval of the department/Engineer-in-Charge to the drawings & more subsequent changes, additions, deviations etc. as required without extra charge.
35. No quantity deviation is permitted without written approval of the competent authority. Permissible deviation shall be sanctioned by the competent authority as per the agreement. Deviation beyond permissible limits shall be sanctioned by the competent authority as per the prevailing Local Market Rates only and the decision of the department is final and binding on the contractor.
36. The quantities given in schedule of work for all the items are tentative. The work shall be carried out as per actual requirement and as approved by the Engineer-in - Charge.
37. All statutory / Mandatory recoveries enforce and as notified by competent authority from time to time shall be recovered from the bills of the agency.
38. Contractor should submit completion plan and certificate along with final bill, failing which 2.5% of value of work, subject to a ceiling of Rs. 15,000/- will be deducted from the bills or the final bill shall not be paid. Decision of Engineer-in-charge shall be final and binding in this regard. However, the completion plan is not necessary for maintenance contractors and this recovery condition shall not be applicable.
39. The Contractor has to make his own arrangement for the safety of his workman. Department shall not be responsible in case of any accident taking place during the work.
40. All the staff engaged by the contractor shall be purely his liability and department in no way shall be responsible for any compensation for any of their acts/ accidents. In case any accident occurs during the execution of the work leading to injuries, damages to human being equipment and or loss of life, the contractor shall be fully responsible for setting all claims and indemnity the department against any claims arising out of such accident.
41. **2.5% of Bill Amount will be deducted as Security Deposit for defect liability period of 36 months and which will be released after successful completion of Defect Liability period.**

LOCATION / SITE DETAILS

- | | |
|---|----------------------------------|
| 1 Address of site | IIT Indore |
| 2 Location | Simrol, Indore (Madhya Pradesh.) |
| 3 Ambient temperature | 42 °C max., 10 °C min, |
| 4. Latitude - 22.52°N,
Longitude - 75.92°E | |

CONTRACTORS ARE ADVISED TO VISIT THE SITE BEFORE QUOTING THE RATES. OTHERWISE IT WILL BE ASSUMED THAT THE PARTY HAS ALREADY VISITED THE SITE BEFORE QUOTING THE TENDER. AN UNDERTAKING SHOULD BE FURNISHED IN ACCORDANCE WITH ANNEXURE ENCLOSED.





PART -II

PROFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of quantities (as per PWD.3)

As per enclosed BOQ.

SCHEDULE 'B'

Schedule of materials to be issued to the contractor.

S.No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
1	2	3	4	5
---- Nil ----				

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S. No	Description	Hire charges per day	Place of Issue
1	2	3	4
---- Nil ----			

SCHEDULE 'D' Extra schedule for specific requirements/ document for the work, if any.	NIL
SCHEDULE 'E' Reference to General Conditions of contract.	GCC for Central PWD Works, 2014 incorporating amendment up to last date of submission of tender.
Name of Work	"Installation, Testing , Commissioning of Freight Lifts at PHY-3 and PHY-1 with statutory clearances and making operational freight lift at CSE-1 at IIT Indore (At Risk & Cost)."
Estimated cost of work	Rs. 27,71,900
Earnest money	Rs. 55,438 (to be returned after receiving performance guarantee)
Performance guarantee	5% of tendered value
Security deposit	2.5% of billing value (from each running bill)
SCHEDULE 'F'	
GENERAL RULES & DIRECTIONS: Officer inviting tender	Project In-Charge (I), IIT Indore
Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3:	See under Clause 12
Definitions:	



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2(v) Engineer-in-Charge	Project In-Charge, IIT Indore		
2(viii) Accepting Authority	Director, IIT Indore		
2(x) Percentage on cost of materials and labour to cover all overheads and profits:	15%		
2(xi) Standard Schedule of Rates	Market rates.		
2(xii) Department	Infrastructure Development Office		
9(ii) Standard CPWD Contract Form	General Conditions of Contract for Central PWD Works 2014 incorporating amendments upto last date of submission of tender.		
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 Welfare Board or proof of applying thereof from the date of issue of letter of acceptance.	As per Part-A		
(ii) Maximum allowable extension with late fee at 0.1% per day of performance guarantee amount beyond the period provided in (i) above	As per Part-A		
Clause 2			
Authority for fixing compensation under clause 2	Director IIT Indore		
Clause 5			
Number of days from the date of issue of letter of acceptance for reckoning date of start	As per Part-A		
Table of Milestone(s)			
Milest one No.	Description of Milestone	Time allowed from date of start (Month)	Amount to be withheld in case of non achievement of milestone
<u>As per Part-A</u>			
Note : The withhold milestone will only be released when subsequent milestone is achieved within the specified time.			
Time allowed for execution of work		45 Days	
Authority to decide:			
(i)	Extension of time	Dean, Infrastructure Development, IIT Indore	
(ii)	Rescheduling of milestones	Project In-Charge (I)	
(iii)	Shifting of date of start in case of delay in handing over of site	Project In-Charge (I)	
Schedule of handing over of site		Site is already available for handing over	





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Schedule of issue of Designs		Already included in NIT
Clause 5.2 Nature of Hindrance Register (either Physical or Electronic)		Physical
Clause 5.4 Schedule of rate of recovery for delay in submission of the modified program in terms of delay days		
SI No.	Contract Value	Recovery (Rupees)
I.	Less than or equal to Rs 1 Crore	500
II.	More than Rs 1 Crore but less than or equal to Rs 5 Crores	1000
III.	More than Rs 5 Crore but less than or equal to Rs 20 Crores	2500
IV.	More than Rs 20 Crores	5000
Clause 6, 6A Clause applicable - (6 or 6A)		As per Part-A
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		Deleted
Clause 7A Whether Clause 7A shall be applicable		As per Part-A
Clause 8B		
(i) This shall not apply for maintenance or upgradation contracts not involving any services. (ii) For other works, the limit shall be as below:		
SI No.	Contract Value	Limit (Rupees)
I.	Less than or equal to Rs 1 Crore	2000
II.	More than Rs 1 Crore but less than or equal to Rs 5 Crores	5000
III.	More than Rs 5 Crore but less than or equal to Rs 20 Crores	25000
IV.	More than Rs 20 Crores	50000
Clause 10A List of testing equipment to be provided by the contractor at site lab. As per directions of Engineer-in-charge.		

CLAUSE- 2A Incentive for Early Completion:-Not Applicable

CLAUSE- 8A Contractor to Keep Site Clean :- Applicable

CLAUSE- 9A Payment of Contractor's Bills to Banks :- Deleted

CLAUSE- 10 B Secured Advance on Non-Perishable Materials:- Deleted

CLAUSE-10B Mobilization Advances:-DELETED

Plant Machinery & Shuttering Material Advance :- DELETED

Interest and Recovery:- DELETED





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CLAUSE 10-C

Payment on Account of Increase in Prices / Wages due to Statutory Order(s) :-
DELETED

CLAUSE- 10CA

Payment due to Variation in Prices of Materials after receipt of tender:-
DELETED

CLAUSE- 10 CC
Tender for Works

Payment due to Increase / Decrease in Prices / Wages after Receipt of
- DELETED

Clause 12

12.2 & 12.3

Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for work 30%

Clause 16

Competent Authority for deciding reduced rates

Project In-charge (I)

Clause 25

Constitution of Dispute Redressal Committee (DRC)

Chairman – Dean, Infrastructure Development

Member - Project In-charge (I)

Member - Dy. Ex. Engineer (Electrical)





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BILL OF QUANTITY

Sr. No.	Description	Unit	Quantity
1	Installation, Testing, Commissioning, statutory clearances and handing over of Freight Lift (Capacity ;2 Ton, G+5 floors) at PHY-1 (POD-1C) with DLP of Three Years. (Make: Schindler). Item includes all necessary work and other accessories required for completeness of work. This also includes supply of any defective or missing item required for proper and safe operation of lift. (For detail refer scope of work of tender)	Nos.	01
2	Installation, Testing, Commissioning, statutory clearances and handing over of partly installed Freight Lift (Capacity ;2 Ton, G+5 floors) at PHY-3 (POD-1C) with DLP of Three Years. (Make: Schindler). Item includes all necessary work and other accessories required for completeness of work. This also includes supply of any defective or missing item required for proper and safe operation of lift. (For detail refer scope of work of tender)	Nos.	01
3	Testing, Commissioning and handing over of partly installed Freight Lift (Capacity ;2 Ton,G+5 floors) at CSE-1 (POD-1C) with DLP of Three Years. (Make: Schindler). Item includes all necessary work and other accessories required for completeness of work. This also includes supply of any defective or missing item required for proper and safe operation of lift. (For detail refer scope of work of tender)	Nos.	01





SCOPE OF WORK

SCOPE OF WORK:

The scope of work for this tender is installation, testing, and commissioning of the following Elevator systems along with their maintenance during guarantee and defect liability period:

PHY-01 building with G+5 Floors – One freight lift (Make: Schindler)

PHY-03 building with G+5 Floors – One freight lift (Make: Schindler)

CSE-01 building with G+6 floors – One freight lift (Make: Schindler)

The scope also includes supply of any missing / defective items required for completeness of the system / installation and its safe operation. Bidder has to check the correctness of the installation already executed at site and any deficiency or defect found is to be rectified at no extra cost. Bidder shall visit the site and see the status of installed lifts and under-progress lifts on "as is where is" basis before making the offer for more clarity and understanding of scope. Bidder has also to take note that the material of elevators to be installed is available at site for installation.

The scope of the bidder includes supply of initial requirement of oil, lubricants & cleaning/ flushing fluid including replenishment of the quantity spent during erection, testing and commissioning along with tools & tackles of the elevator.

PHY-01 Building:

This includes installation, testing and commissioning of complete components of Freight Elevator of make M/s Schindler 2.0 ton capacity.

The scope includes providing and fixing of all three nos. ISMB 200 as per manufacturer datasheet at headroom. Also, supply and installation of light fixtures and power sockets is included in scope of contractor. One bulkhead fitting at 1Mtr. above car cabin at each landing level to be provided with one 16A switch+socket for maintenance at each such location. Light fitting –LW-07-141-XXX-57-XX or equivalent. Also, lighting to be provided at pit location and headroom. Two nos. 2-way switches for lighting control (one at top and at pit), conduiting & wiring etc. are also included in scope of the bidder. Laying and termination of separate power cable for lift lighting and lift power supply (Cable shall be provided by institute). Earthing of lift through earth strip from nearest earth pit. Necessary statutory clearances shall also be under contractor's scope

Details of work balance are as follows:

1. Setting of template and plumb lines
2. Scaffolding required as per site condition
3. Fixing of guide rails brackets at every 2.5 mtr or as per manufacturer standard drawing.
4. Installation of guide rails with support bracket
5. Machine base plate and hitch plate installation at headroom
6. Installation of landing doors with header, lower sill rails, panel guide shoe, light curtain, door panels etc. complete in all respect. Installation of landing operator panel.
7. Car frame and counter weight frame installation
8. Traction machine installation.
9. Installation of counter weight, pulley and STM belts.





10. Safety gear installation, limit switch, load measuring sensor, control cabinet, inverter etc. as per manufacturer standard.
11. Roping
12. Car cabin platform and car panel installation with other accessories like car door operator, mirror and handrails. Light, ventilation fans etc.
13. Car operating panel installation
14. Pit arrangement
15. Electrical wiring, cabling and earthing of equipment.
16. Testing and commissioning of Elevator as per manufacturer recommendation and other relevant standard like over load, free fall operational and functional check, auto rescue device etc. Bidder has make all the provision for testing of elevator like weight for overload test etc.
17. Bidder to supply and lay power cable and earth strip. Details are as follows: Power cable laying from Main Panel to liftwell (4CX10-110 mtr. Approx & 3Cx4. – 110 mtr. Approx) and Earth strip laying from earth pit to liftwell. (25X3 strip- 30 mtr. Approx.)

PHY-03 Building (freight lift):

Scope is same as above in PHY-01 except the following work

1. Laying of power cable for lift lighting and lift power
2. Brackets are installed.
3. Guide rails are installed.
4. Lighting and power socket work completed.
5. ISMB Beam installed at site.

The scope of work for PHY3 lift include termination of already laid cable (4Cx 10 sq.mm and 3C X 4 Sq.mm) at panel side and lift side to be executed by lift contractor.

CSE-01 Building (Freight lift):

Scope of the bidder includes checking of system for its completeness and rectification, if required, of any leftover job. Testing and commissioning of freight Elevator as per manufacturer recommendation and other relevant standard.

Status on site: Elevator is installed. Lighting of shaft and cabling done. (Make: Schindler)

DEFECT LIABILITY:

For all the above lifts, scope of work includes Defect Liability Period of 36 (Thirty Six) months that shall commence from the date of handing over of lift to client. This period means the duration of validity of the warranties given by the contractor commencing from the date of handing over of the lifts. During this period the contractor shall be responsible for defects with respect to the lifts.

MAINTENANCE:

The contractor shall maintain the elevator system in a proper working condition with utmost safety during defect liability period. Responsibility entails daily inspection by the supervisor / technician and unlimited call back service including nights, weekends and holidays.

Apart from the above, this maintenance shall include 1 visit by Engineer per week for the first 6 months from the date of acceptance of the elevator system. Call back service shall be provided for emergencies, and responded within 2 Hrs.





Engineer's Visits for the next six months shall be not less than 1 per fortnight with visit timings adjusted so as not to coincide with the busiest usage period. Call back service shall be responded within 2Hours and service involving more than one stalled or erratic elevator shall be immediately provided regardless of the time of day or night.

Emergency call back service for trapped passengers shall be responded to within 10 minutes. There shall be no compensation for callback service regardless of the hour/ day, etc.

The elevator contractor shall maintain the elevator system in a professional, first class manner and keep and maintain elevator machines with other equipment in a neat workman like order.

The contractor shall anticipate demand on supplies and parts and keep an inventory of a reasonable number of spare parts, at his own cost, on site in a self provided lockable metal cabinet.

TOOLS AND TACKLES:

All tools, tackles, supports, scaffolding and staging etc. required for erection and assembly of the equipment and installation covered by the contract shall be provided by the Contractor himself. A list of such tools& Tackles shall be furnished. In addition, all other materials such as foundation bolts, nuts etc. required for the installation of the equipment shall also be provided by the contractor at his cost.

UPTIME GUARANTEE:

The contractor shall guarantee for the installed system an uptime of 98%.In case of shortfall in any month during the defects liability period, the defects liability period shall get extended by a month for every month having shortfall.

MISCELLANEOUS:

The following shall be in the scope of the successful elevator contractor and it shall be his responsibility to arrange the items in order to complete the installation.

- i) Scaffolding
- ii) All steel items included.
- iii) Stainless Steel Jamb Panel & sill Angles.

QUALITY ASSURANCE PROGRAM & TEST PROCEDURE FOR ACCEPTANCE:

Following test procedures shall be carried out prior to acceptance of elevator system.

- a. Test to determine that the insulation resistance between power and control lines and earth is as per specified IS codes.
- b. Test to determine that the earthing of all conduit, switch, casings and similar metal works is continuous and of low resistance.
- c. Test to determine that the motor, brake, control equipment and door locking devices and limit switches function correctly.
- a. Load test with 100% and 110% of rated load of IS 14665 (Part 2/Sec 1): 2000.
- e. Brake to be tested to check whether it can sustained a car at rest with 25% of contract load.
- f. Test to determine that the lift car achieves the specified speed.
- g. Test to determine that the safety gear stops the car with the rated load.
- h. Test for rated power against actual power consumption under full load.
- i. Check for current drawn by each elevator during starting and full load operation.
- j. Sound level check for motors.



- k. Visual inspection for all components.
l. The contractor shall guarantee the smooth and noiseless performance of the elevators System as per IS-1860 —1980 & IS-6620-1972 (Reaffirmed 1991).
m. Any other test felt necessary by Purchaser and supplier to ensure proper functioning and installation of the lift.
Test load & other equipment (stop watch etc.) shall be arranged by the contractor.
Besides the above, contractor shall submit his standard quality assurance program and test acceptance procedures to Owner / Consultant.

Performance Guarantee Parameters & Rejection Limit

Sl. No.	Performance Guarantee Parameters	Capacity	Tolerances	Rejection Point Limits
1.	Capacity of various equipment without undue noise etc.	As per rated capacity indicated	(-) 0.00%	Below rated capacity
2.	Noise Level	90 dBA at 1:86 meter	(+/-) 0.00 %	Above this level
3.	Bearing Vibration Level	40 microns	(+) 0.00 %	Above this level (peak to peak)

ALL INCLUSIVE MAINTENANCE CONTRACT:

- a. Routine Preventive Maintenance Schedule to be submitted
- i. Schedule to cover manufacturer's recommendation and/or common engineering practice (for all plant and machinery under contract).
ii. Plant and machinery history card giving full details of equipment and frequency of checks and overhaul.
iii. Monthly status report.
iv. Performance guarantee parameters.
- b. Uptime during maintenance contract
- i. 98% uptime of all systems under contract.
ii. Up time shall be assessed every month and in case of shortfall during any month the contract shall be extended by a month.
iii. There shall be no reimbursement for the extended period.
iv. Break-downs shall be attended to within two hours of reporting.
- c. Manpower
- i. Adequate number of persons to the satisfaction of the Owner's site representative shall be provided including relievers.
ii. Statutory requirements of EPF, ESIC and other applicable labour legislations to be complied with; and monthly certification to that effect to be submitted.
iii. Duty allocation and Roaster control shall be contractor's responsibility.
iv. No overtime shall be payable by Owner for any reason whatsoever.
- d. Shut Downs
- i. Routine shut downs shall be permitted only with prior permission.





ii. Contractor shall be at liberty to carry out routine maintenance as and when required but with prior permission of the Owner.

e. Payment Terms

i. Quarterly payment at the beginning of each quarter on prorated basis.

TECHNICAL SPECIFICATIONS FOR ELEVATORS

A) TECHNICAL DESIGN AND SPECIFICATIONS FOR TRACTION LIFTS:

1.0 GENERAL:

These specifications are intended to cover the complete installation of the elevator plant in the first class work men like manner and include all work and material as specified. The supply and installation of lift is on turnkey basis. Any item not mentioned in the detailed specifications but required to be provided stands included in the contract amount and nothing extra shall be payable for that. The elevators shall be suitable for 24 hour round the clock operation. Safe access for maintenance and removal of all mechanical and electrical parts shall be ensured, without additional scaffolding. All parts requiring replacement or inspection or lubrication shall be easily accessible without the need for dismantling of other parts/equipment. All electrical cables shall be so laid that they are not liable to damage and can be easily inspected and maintained.

2.0 STANDARDS:

The standards shall be as indicated in clause for governing codes & permit.

3.0 DRIVING MECHANISM:

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 -20% and shall be placed directly above the hoist way on steel beams resting on machine room floor slab or as per technical parameters. The elevator machine shall have high efficiency and low power consumption and shall be designed to withstand peak currents in elevator duties. Resilient anti-vibration mountings of suitable design shall be provided to minimize vibration transmission to the building structure. The elevator machine shall be gearless type and shall consist of a motor, electromechanical brake, sheave shaft and sheaves. 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 wears. Adequate means of lubrication shall be provided for all bearings. Means of manual operation of the elevator car shall be made by providing winding wheel suitably marked to indicate the direction of the movement to enable to elevator car to be brought to the nearest landing. There shall be a warning display for switching off electrical supply before the manual operations.

3.2 Brake:

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



4.0 CONTROL:

The elevators shall have state of art microprocessor based AC variable voltage variable frequency (ACVVVF) drive. Two/ Three/ Four elevators adjacent to each other in one location shall be provided with Directional Collective Control for two/ three/ four cars with Group Supervisory Control as stipulated in para 8.2.8 of IS 14665 (Part – II/Section – I) : 2000 also called Duplex/ Triplex/ Multiplex Full Collective Control respectively. The control system shall regulate dispatching of individual cars and shall provide service to all floors as different traffic conditions arise minimizing unproductive factors. The system shall respond automatically to UP and DOWN peak, balanced or light traffic etc. Complete detail of these features shall be furnished along with the tender. Some of the technical parameters required are innumerate below. Tenderers shall categorically confirm their compliance or otherwise in the tender.

- a) Starting Current - 1.2 – 1.5 time full load running current
- b) Power saving - 50 – 55%
- c) Leveling accuracy - ± 3 mm
- d) Acceptable Voltage Fluctuation - + 10 to -20%
- e) Rate of acceleration/deceleration (M/S²) - 0.6 – 1.5 (Adjustable at site)
- f) Maximum jerk (M/S³) - 0.7 – 1.5 (Adjustable at site)
- g) Maximum vibration in car horizontal/vertical - 20/18 dBA
- h) Maximum noise level in car during travel - 48 dBA
- i) Maximum noise level in machine room at 1 mtr from machine - 62 dBA
- j) Maximum door noise level while closing and opening at a distance of 1 mtr from car door - 52 dBA

The controller 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. An inbuilt voltage stabilizer shall be provided in the controller for the purpose.

The controller shall be complete with relay protection against the following:

- a) Over current
- b) Under voltage
- c) Single phasing
- d) Phase reversal
- e) Earth leakage
- f) Over voltage

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 tenderer shall state clearly the form of protection provided 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. Tenderers shall stipulate the type of devices used and the material of the contacts. Tenderer shall support their offers with complete details of experience, number of elevators installed and operational in India, collaboration for equipment design and manufacture etc.

a. CAR ENCLOSURE:

The car shall be enclosed on all sides by means of car body and door. The sides of the car shall be lined with heavy gauge stainless steel sheet plate properly braced and reinforced.



The enclosure shall be flush on the inside and securely fastened to the platform. The car body floor shall be of M.S steel construction with chequered plate top. Side panel of the enclosures shall be constructed out of stainless steel grade 304 scratch resistant.

Flooring shall be stainless steel chequered plate with all welded seams for liquid tightness. Elevators shall have provision of 20- 30mm recess in floor for fixing of granite/floor as per owners choice. (The weight of flooring and Granite should not have any adverse effect on the passenger/load carrying capacity of the lift. In other words, it should not be considered as the weight being carried by the lift and it is in addition to the capacity.)

The top flooring shall be of steel with decorative false ceiling/Acrylic ceiling as per owner's choice.

A selector switch and a set of push buttons shall be provided on the top above the ceiling of the car to operate the elevator locally for inspection and maintenance. The selector switch when set to position "Inspection" shall exclude control from other places and movement of the car in the desired direction shall be effected by the push buttons. A three pin plug socket with a switch for head lamp shall be fitted on the top of the car for use during maintenance. The roof shall be strong enough to support at least two persons. Provision for slow speed (1/2 of rated speed) operation from car top in up and down directions in independent mode shall be made to facilitate maintenance of devices in the hoist way. Necessary fittings shall be provided for this purpose.

The light & fan fittings shall have automatic sleep provision.

Necessary provisions shall be made for adequate ventilation of the car.

Hand railings shall be provided on the three sides of the car.

All finishing materials shall be fireproof or fire resistant conforming to applicable codes.

Car enclosure shall withstand a thrust of 35Kg applied at normally at any points without permanent deformation.

5.0 DOORS:

5.1 Car Door:

The car entrances for elevators shall be protected by minimum 1000 mm W x 2100 mm (H) automatic power operated, center opening, power doors with stainless steel hairline finish with emergency key opening at all landings as per standard manufacture of respective manufactures (details to be furnished along with the tender). Vision panel shall be provided if required by the owner.

5.2 Hoist way Landing Doors:

The hoist way landings for elevators shall be protected by minimum 1000 mm W x 2100 mm (H) automatic power operated, center opening power door with stainless steel brushed finish with emergency key opening at all landings as per standard manufacture of respective manufacturers (details to be furnished along with the tender). Vision panel shall be provided if required by the owner.

5.3 Car & Hoist way Door Protection:

full door curtain of rays by multiple infra red cell electronic door detector shall be provided to regulate the closing motion of the doors for entry of the passengers. When a person is entering the car while the doors are closing the detector shall sense the same and hold the doors to permit entry. There shall be no zone in the entire opening that is not monitored by the device.

5.4 Car & Hoist way Door Operation:





The equipment shall be complete with electric door operator for opening and closing of Car & Hoist way landing door. The equipment shall consist of a motor on the elevator car to operate the door when the car is stopping at a landing. The car & 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 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 elevator 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.

5.5 Door Hangers and Tracks:

The car and the landing doors 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 required.

5.6 Car Frame:

The car frame shall be in accordance with clause-4 of IS 14665 (Part 4-Sec 3) : 2001 made of stainless steel of rigid construction to withstand without permanent deformation the operation of safety gear. The car shall be so mounted on the frame that vibration and noise transmitted to the passengers inside is minimized.

6.0 CABIN FAN:

A Noiseless 400mm sweep pressure fan or blower shall be provided in the elevator cabin with supply grill matching with the interior of the car.

7.0 EMERGENCY LIGHTS:

In addition to normal lighting an emergency light unit using sealed Nickel/ Cadmium Maintenance free battery power pack with charger and fluorescent lamp to operate automatically and to illuminate the car for minimum 30 minutes in case of power failure shall be provided in each elevator care.

a. AUTOMATIC RESCUE DEVICE & EMERGENCY CRANKING

Each elevator shall be provided with an electronic state of art Emergency Rescue Drive along with complete accessories including necessary batteries for automatically rescuing trap passengers from the elevator during power failure. The rescue device shall automatically bring the elevator car to the nearest landing and open the door so that the trapped persons can walk out of the elevators. The elevators shall resume normal operation on restoration of power supply.

The hoisting machines shall be provided with a set of special tools including a hand crank to allow release of hoist brake and provide for manual movement of the car in case of emergency. These tools shall be hung up on a tool board fitted to a wall in overhead area, with instructions for their use clearly written on the board both in English and the local language. The elevator system supplier shall qualify his bid with respect to manual cranking.





An automatic switch shall be provided to interrupt power to the elevator mains. Upon withdrawal of crank and manual resetting of power monitor switch, power shall be restored.

8.0 OPERATION BUTTONS AND INDICATIONS:

The following operation buttons and indications shall be provided:

8.1 In each Elevator Car:

Full height car operating panel in Stainless steel mirror finish flush mounted shall be provided on one side of the door having:

- a) Led illuminated Push buttons of micro pressure type with Braille markings.
- b) Door open and door close button.
- c) Emergency stop button.
- d) Emergency alarm button.
- e) Two position key operated switch for 'with attendant' and 'without attendant' operation.
- f) Ventilation fan & lights ON/OFF switch with auto OFF facility when there is no call after 120 seconds.
- g) Built in intercom of the hands free type as well as space for providing EPABX telephone instrument and 5 pair telephone trailing cable to communicate from car to machine room receiver and car to Central Monitoring Station (at remote location) and vice-versa.
- h) Digital Display of position and level indication display in the built into COP (Dynamic car direction display) .
- i) Audio/Visual overload warning indicator.

8.2 At Landings:

- ☐ Combined hall buttons at both the entry of lobby with digital display and led illuminated Push buttons with Braille markings.
- ☐ Hoist way panel to have multiplex collective control (in case of multiple lifts) with ACVVVF drive according to the no. of cars.
- ☐ Car Position and direction indicator, Floor arrival light and ding indicator.
- ☐ The Threshold at the door landing should be in SS.

9.0 SAFETY DEVICES:

All safety devices statutorily required by all prevailing byelaws and Rules/Codes/ Elevator Inspector, including but not restricted to the following shall be provided:

9.1 Terminal and 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 power should the car travel beyond the terminal landings.

9.2 Interlocking:

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

9.3 Car Safety and Governor:

The car shall be provided with over speed governor to stop the car whenever excessive descending speed is attained and safety gears shall be applied automatically if necessary.

9.4 Emergency Stop Switches:

An emergency stop switch for use by maintenance personal shall be provided in each elevator car and lift pit.





9.5 Self Leveling:

The elevators shall be provided with automatic self-leveling features of $\pm 3\text{mm}$ accuracy.

10.0 FIREMAN SWITCH:

Each Elevator shall have a Fireman switch with glass from for access by the Fireman. The operation of this switch shall cancel all calls to this elevator and will stop at the next nearest landing if traveling upwards. The doors will not open at this landing and the elevator 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 bypassing all calls enroute. The emergency stop button inside the car shall be rendered inoperative.

11.0 SAFETY ITEMS:

Following safety items shall be provided in BY Contractor to cover the cost of these items in his quoted rates, nothing extra shall be paid on this account.

First Aid Box

Fire buckets

Danger Plates

Fire extinguisher in car

Any other safety item that may be required by authorities.

12.0 GUIDE RAILS:

The car rails should be 'TEE' section, duly machined, tongued and grooved. Counter weight rails shall be 'TEE' section, duly machined, tongued and grooved. The guide rails shall have sections, the properties of which shall comply with the requirement of the relevant IS code. The guides shall be capable of withstanding forces resulting from the application of the car or counter weight safety devices.

13.0 BUFFERS:

The suitable heavy-duty spring buffers shall be placed below the car and counter weight but in the pit & arranged to sustain any shock, should the lift over travel past the terminal limits. Buffers shall be mounted on RCC foundation blocks. Dowels for the purpose shall be left while casting the pit floor alternatively floor reinforcement could be exposed by chipping for welding additional reinforcement for dowels.

14.0 ROPES & SHEAVES

These will be self lubricated; round standard steel wire ropes manufactured from high grade steel and special flexible material and shall conform to the relevant Indian Standards. The number and size of the hoist way ropes shall be so selected that it have the combined breaking strength calculated with a minimum factor of safety of 12 times the combined weight of car with full load and also have adequate traction for the elevator. The governor ropes shall also be wire ropes. Sheaves shall be machined, balanced and shall maintain cable/sheave ratio well within requirements. Lubrication points shall be extended to a location that is easily accessible.

15.0 SILLS:

The sills to be provided should be aluminium grooved, with self-supporting sill M.S. angle of adequate size.

16.0 AC MOTOR:





The make, type and capacity of hoisting motors should be mentioned. The motor should be suitable for elevator service (S 4 duty) with high starting torque & low starting current. Thermistor shall be embedded in starter windings to indicate the temperature rise in the motor.

17.0 ELECTRIC POWER:

The available system of electric supply is 415 Volts +10% -10% between phases and 240 Volts between phase and neutral – 3 phases, 4 wires AC 50 Hz system. In addition, for illumination and control, power at 240 volts AC single phase 50 Hz shall also be available. Any equipment/ component operating at other than the above mentioned power supply should be provided with necessary transformers/voltage stabilizers. The amount of power required for elevators shall be indicated in the tender. All subsequent electrical systems shall be the responsibility of the tenderer.

18.0 ALARM BELL:

A butterfly operated emergency alarm bell, including wiring to be provided and connected to a properly marked push button in the car-operating panel. The alarm bell shall be located at the ground floor, at the floor landing outside and adjacent to hoist way or as desired by Project Manager.

The alarm unit shall be solid-state siren type, operated by Nickel/Cadmium maintenance free batteries to give a waxing and warning siren when the alarm button in the car is pressed momentarily.

19.0 HOIST WAY GATE INTERLOCKS:

Each Hoist way gate shall be provided with an approved interlock and which shall prevent the movement of the car away from the landing unless all gates are closed and locked. The interlock shall also prevent opening of gate except at the landing where the car is stopping or has stopped.

20.0 COUNTER WEIGHT:

The counter weight shall be made of cast iron and consist of structural steel frame which shall travel between rigid guides and also shall be capable of withstanding buffer impacts. The counter weight shall have weight equal to that of the complete elevator car and approximately 50% of the contact load. Suitable metallic counter weight guard of required length shall be provided at the bottom of the hoist way. Compensating chain shall be provided.

21.0 HITCHES PLATES:

Self-aligning hitches plates of better roping shall be provided.

TRAVELING CABLES:

Fireproof compound coated traveling cable shall be used and shall conform to IS: 4289 - 1967 with latest amendment. The firm can also use flat traveling cables (imported only) with the approval of the consultant.

22.0 GUIDE RAILS SHOES:





To prevent car shaking automatic adjustable guide rails shoes should be used. The firm should use Teflon guide ribs on lubricated guide rails.

23.0 REVERSE PHASE RELAY:

Reverse phase relays should be provided on the controller, which should be designed to protect the lift equipment against phase reversal and single phasing and phase failure.

24.0 CONTROLLER:

Single automatic push button control shall be used. The design of the controller should be such that it can be mounted on a wall and is dust protected, providing sufficient protection against lizards, rodents etc.

25.0 TECHNICAL PARAMETERS:

The technical parameters give requirement of various parameters of passenger elevators. Tenderers shall fill in their item wise confirmation/comments in the column provided for the purpose in this annexure. Deviations, if any, from tender requirements shall be clearly brought out in this annexure, failing which it shall be presumed that the offer conforms to the tender requirements fully. Tenders in whom these technical parameters are not duly filled in by the tenderer are liable to be summarily rejected.

26.0 ELEVATOR PIT AND SHAFT:

Adequate lighting in lift pit lift & shaft and ladder in lift pit shall be provided.

27.0 MACHINE ROOM

Adequate lighting & ventilation of machine room shall be ensured.

Necessary & adequate arrangement shall be provided for handling of elevator machinery in the machine room shall be provided.

28.0 AUTOMATIC ELEVATOR RETRIEVAL SYSTEM (FIRE PHASE- I)

All elevators shall be equipped with automatic elevator retrieval system which shall, upon signal from the central fire alarm system or manually operated key switch, cause all elevators to be dispatched automatically to the ground floor. Elevators shall, open their doors and remain at the ground floor. All floor and car buttons shall be rendered ineffective until the system is manually reset. A smoke detector shall be placed in close proximity to each elevator bank on the ground floor. If this device senses smoke, system shall land elevators at a pre-selected, alternate, landing floor. A key operated switch shall be provided at the ground floor to activate and reset the retrieval system manually.

a. Emergency operation shall return the elevator/s to a designated floor, most commonly, the Lobby, by means of a signal from the automatic fire alarm system.

b. On initiation from the fire alarm system, all elevators travelling away from the lobby floors shall stop and reverse without opening their doors indicating fire mode-operation to passengers, ignoring all car and hall calls and express to the lobby or assigned floor.

c. Cars travelling toward lobby shall express to lobby ignoring all car and hall calls. Cars parked on intermediate floors shall close their doors and express to lobby. Cars parked at lobby shall open their doors ignoring car and hall calls. All hall and car buttons shall extinguish and shall accept no further hall or car registration.

d. All elevators shall, in addition and where allowed by code, be provided with a key operated switch where designated by the Architect, for use by in-house fire brigade.

e. The elevator contractor shall coordinate and cooperate with the fire detection & alarm system supplier / installer for his system interfacing responsibilities.

Fireman Emergency – Phase – II





Actuation of fire mode shall put all car functions as described here under fireman control by means of a key switch.

- a. Hall button giving car call indication shall cause the doors to close.
- b. Applying constant pressure to the door open button shall cause door to begin to open. Releasing the button before door is fully open shall cause the door to close.
- c. Hall buttons shall be rendered inoperative.
- d. Car position indicator shall indicate floor when car is within door operating range, and if in motion it shall indicate nearest floor by flashing. When a car is within operating zone, the position indicator shall light uninterrupted.
- e. All electrical door safety locks shall remain effective.
- f. Car position, direction of travel and floor conditions shall be displayed on the car position monitor in the lobby, and at elevator system monitor in engineering room.
- g. Returning the car to the designated landing floor, deactivating the lobby switch shall render the car to original pre fire mode condition.
- h. Resetting the Fire Alarm contacts in the car monitoring panel shall restore the system to normal condition.

29.0 OPERATION

29.01 One Car Simplex (Passenger or Service)

- a. Operation shall be automatic by means of the car and landing buttons. Stops registered by the momentary actuation of the car or landing buttons shall be made in order in which the landings are reached in each direction of travel after the buttons have been actuated. All stops shall be subject to the respective car or landing button being actuated sufficiently in advance of the arrival of the car at that landing to enable the stop to be made. The direction of travel for an idle car shall be established by the first car or hall button actuated.
- b. "UP" landing calls shall be answered while the car is travelling in the up direction and "DOWN" landing calls shall be answered while the car is travelling down. The car shall reverse after the uppermost or lowermost car or landing call has been answered, and proceed to answer calls and landing calls registered in the opposite direction
- c. If a car without registered car calls arrive at a floor where both up and down hall calls have registered, it shall initially respond to the hall call in the direction that the car was travelling. If no car call or hall call is registered for further travel in that direction, the car shall close its doors and immediately reopen them in response to the hall call in the opposite direction. Direction lanterns shall indicate the changed direction and initiate gong when the doors reopen.

29.02 Group Control for Passenger Elevators

- a. The building shall be divided into three (3) zones with one car assigned to the "Lower" zone and the other car assigned to the top zone. Each car shall park in its assigned zone when there are no unanswered calls.
- b. The lower zone shall include the lobby, lower levels, and adjacent floors immediately above the lobby. The remainder of the floors shall be divided between the top zone and the middle zone. Either car may answer calls in the middle zone, but neither car shall park in that zone.
- c. The first car entering a parking zone without hall or car calls shall be assigned to that zone. The car in the lobby zone shall park at the lobby or other predesignated floor. The car entering the top zone with no calls registered shall stop at the lowest floor in that zone.
- d. Optimized response to hall calls shall be achieved by computing a relative system response (RSR) time for each registered hall call. The computation of each car's RSR time to a call shall be based on, but not limited to, such relevant factors as distance, service to





previously assigned car and hall calls, car load, direction, door and car motion status, and coincidence of car and hall calls. The car with the least RSR shall have such a call assigned to it.

e. RSR computations for each hall call shall be repeated several times a second and the hall call assignment might be changed if a more suitable car is found available.

f. A car arriving at a floor to park shall not open its doors. Cars shall open their doors only when stopping in response to a car or hall call.

g. If for any reason the doors are prevented from closing and the car is unable to respond to a call, it shall lose its zone assignment and the call shall be transferred to the other car.

h. When a car is filled to a predetermined load setting, it shall no longer stop for hall calls. Any registered hall call shall remain registered for the next elevator to respond.

i. When the independent service switch in the car operation station is actuated, that elevator shall be disconnected from the hall button riser/s and operate independently from car buttons only.

30.0 Electrical Details

General

The scope of work of the tenderer shall include design, manufacture, shop testing, supply, erection, testing and commissioning of all electrical equipment severally and integrated with the lift operation. The electrical scope of work shall commence from the Purchaser's power supply points in machine room and shall include but not limited to the following: -

All cables (power , control & signal) , motor, brakes, motor control panel (lift panel) including VVVF control(digital) for AC drives, limit switches, digital indicators, illumination system inside the elevator, flexible cables required for the system, combined luminous buttons with luminous digital hall position indications at all floors, digital car position indicators inside elevator car, battery operated alarm bell, emergency light, cabin fan, ventilation fan, overload warning indicator inside the car, fireman's switch, rescue device etc. to make the system complete in all respect for efficient operation of the elevator.

415 V +/- 10%/, 50 Hz +/- 5% , 3 phase, 4 wire power supply shall be taken from the power supply feeder of the Power Distribution Board. One no suitably rated isolator shall be considered in the lift machine room. One no 15 Amp. 240 V socket outlet for hand lamp shall be provided on top of car by tenderer. Control supply shall be 110V A.C, 50Hz.

The tenderer shall indicate the make of all equipment, components used for the electrics of the elevator car in their offer.

The equipment offered shall be suitable for trouble free and efficient service in the tropical humid climate with an ambient temperature of 50°C and maximum relative humidity of 90%. The maximum temperature of 50°C and maximum humidity of 90%, however, may not occur simultaneously.

The electrical equipment shall comply with the latest revision of relevant Indian Standards and wherever such Indian Standard is not available, it shall comply with the generally accepted International codes and practices. The equipment shall be dust and waterproof.

All Electrical equipment shall conform to latest Indian Electricity Rules and regulations and the statutory requirement of Government of India and the Govt. of the **State** regards to safety requirement, earthing and other essential provisions specified therein.

The materials used and the equipment supplied shall be new, reliable and of the class most suitable for the purpose for which they are intended. The equipment design and installation shall allow easy access to facilitate inspection, maintenance and repair. Test certificates of all equipment shall be submitted before inspection of the same.

Design Construction and Performance Requirement





A. Low voltage squirrel cage induction motor

The design and performance of motors shall conform to IS: 325 -1978

1) Constructional Features

- Frame sizes and rating as per IS: 1231-1974, IS: 2223-1983, and IS: 2254-1985.
- Motor shall be with cast steel body.
- Motor feet shall be integral with motor body.
- Degree of protection for motor, bearings and the terminal box shall be IP 55.
- The shaft ends shall be cylindrical.
- The bearings/fan shall be suitable for running the motor in either direction.
- Two numbers earthing studs shall be provided on the motor body.
- The motors shall be painted with paint of shade no. 632 as per IS: 5-1991

Electrical Design

- Motors shall be cage induction motor suitable for DOL starting/VVVF control. Motors shall be suitable for 415V+10% /-10%, 50HZ+5% /-5% supply. Motor shall be suitable for frequent start/stop operation.
 - Rating of the motor selected shall be based on the class of duty and the load imposed by the equipment.
- The accelerating characteristics of the motor shall be matched with those of the coupled machine so that smooth acceleration is obtained without over heating the motor.
- Motors shall be capable of starting and running up with normal load and 85% of rated voltage at its terminals. The pull out torque of the motor shall not be less than 275 % of the full load torque.
 - Motor shall be suitable for heavy duty, reversible, frequent starting, elevator service.
 - The motor KW shall be de-rated for 50OC ambient and heating due to VVVF control.
 - The class of insulation shall be 'F'. Under normal running conditions the temperature rise shall be limited to class B as measured by resistance method.

Terminal Box

- The terminal box shall be amply dimensioned to receive PVC insulated and armoured cables with aluminium conductors.
- The terminal box shall normally be provided on the top.
- A suitable earthing stud shall be provided inside the terminal box.
- It shall be possible to rotate the terminal box by 90 degrees.

Cooling

- Motors shall be of TEFC design.
- Cooling shall be effective in either direction of rotation.

Quality of Operation

- Motors shall be dynamically balanced with full key in the shaft and the fan.
- The vibration levels shall be as per IS: 12075-1987.
- Continuous noise level shall not exceed 85 db at a distance of 1(one) m from the motor body.

Additional requirements for LT VVVF duty Motors:

Parameters Description

Type - AC Squirrel cage induction motor.

- Inverter Duty, Standard - IPSS 1-03-001/ IS 325

- NEMA Standard MG1-1993 Part 31, or the latest revision in so far as it is applicable.

Constructional Features Frame size & rating - As per IS 325

- 10:1 constant torque speed range motors may exceed frame standard by one frame rating.



Motor body Grey iron casting as per IS: 210-1978
Motor Feet Integrally cast with the stator
Body Design - Prevent breakage or other failures due to vibrations normally encountered in heavy industries.
- Motors shall be of weather proof construction.
- Designed to operate in the humid air stream.
Protection for Motor & Bearing IP – 55 (with canopy for motor)
Motor Shaft Shall be provided with an external recessed slinger at the drive end of the motor to provide additional (minimum IP-54) protection from moisture and foreign material.
Shaft ends & Extension Cylindrical as per requirement
Shaft shall be extended for encoder / tacho. mounting, accordingly suitable hole shall be drilled and tapped.
Internal Encoder Motors with speed variation of 1000:1 at constant torque shall have internal built in
Encoder for speed feedback
Bearing Roller type bearing up to 5 kW.
Ball Bearing at NDE end for above 5 kW
All motors shall have fully re-greasable, antifriction bearings.
All motors shall have cast iron inner bearing caps.
Bearings shall be oversized.
All motors shall have a charged lubrication system to inhibit moisture condensation.
Standard motors shall have extended grease fittings on the opposite drive-end to facilitate re-lubrication. Grease ports shall be located on the periphery of the motor end shield.
Motor shall be fitted with a shaft slinger or Vring seal on the drive end for a minimum of IP-54 protection (to help protection of bearing from ingress of dust, dirt or fluids).

Terminal box

Location RHS viewed from DE / on top
Suitability 4 Core Aluminum Cable
The terminal box shall be oversize as compared to NEMA requirements. Rotation 4 X 90 deg.
Earthing stud Inside Terminal Block
Miscellaneous shall be gasketed between the terminal box halves. The conduit box shall be field convertible to cast iron.
External screws and bolts shall be grade five, hex heads and be plated to resist corrosion.
Cooling TEFC, Effective bi-directional
Motor with 1000:1 speed range and constant torque shall have external fan .
External fan motor shall be 3 phase, 415 V AC

Quality of operation

Vibration intensity shall be limited as per IS 12075-1986.
Shall not exceed 08 inches / second velocity.
Noise level As per IS: 12065-1987

Electrical design

Power Supply 415 V +/- 10%, 3-phase, 50 Hz + 5% & - 5%, 4-wire AC, 50 kA for 1 second, solidly earthed.
Starting VVVF Drive
Service factor 1.0 for VFD power.
1.15 For sine wave power.
Peak transient voltage 1600 V
Minimum rise time 0.1 microseconds





- Starting Torque 200 % rated torque for 1 minute below base speed
Constant horsepower operation 1.5 times base speed.
- ☐ ☐ Duty S1 / Suitable for operating with Elevator duty motor
 - ☐ ☐ Max speed permissible 150 % rated for 2 minutes
 - ☐ ☐ De-rating for VVVF As per above mentioned standard
 - ☐ ☐ Insulation Minimum Class F or better insulation materials with additional phase insulating material, extra end-turn bracing and Class H spike resistant wire.
 - ☐ ☐ Torque Type Normal / High / High slip type / Stall Torque type
 - ☐ ☐ Space Heater for Outdoor motors above 45 kW and Indoor Motor above 110 kW
 - ☐ ☐ Temperature Rise By resistance shall be 80 degrees C or less when measured at rated load on sine wave power, on inverter power ratings shall be 105 degrees C or less.
 - ☐ ☐ No. of Poles 4/As per the tenderer recommendation

31.0 Operating Characteristics

- ☐ ☐ Operation with variation in the voltage or the frequency Motor shall able to start and accelerate with 85% of rated voltage.

Motors shall operate successfully under running conditions at rated load with variation in the voltage or the frequency not exceeding the following conditions:

+/-10% rated voltage at rated constant V/f ratio except for specific torque boost situations. Motors shall operate successfully under running conditions at rated load and V/f ratio when the voltage unbalance at the motor terminals does not exceed one percent.

- ☐ ☐ Torques

Motors shall meet or exceed the minimum locked rotor (starting) and breakdown torques specified in NEMA Standard MG1 Part 12 for Design B for the rating specified when on sine wave power.

- ☐ ☐ Locked rotor (starting) current - Shall not exceed NEMA Design B values for the specified rating on 5:1 constant torque or less and variable torque motors. NEMA Design A values are allowed for 6:1 constant torque or higher value constant torque rated motors. Motors shall be capable of a 20 second stall at six times full load current without injurious heating to motor components.

B. BRAKES

- Brakes shall be DC electromagnetic type .
- Brake power supply 220V DC obtained through individual transformer rectifier set.
- Brakes shall be of heavy duty type suitable for elevator operation having long mechanical life.
- Brakes shall be self-aligning and quick acting type.
- Brakes shall be electrically released and spring applied for fail safe operation.
- Brakes shall have facility for torque adjustment.
- The coil connection shall be brought out to a suitable terminal box.
- The necessary rectifier and brake control panel shall be supplied along with the brake.

C. LIMIT SWITCHES

- Limit switches shall be of robust construction capable of withstanding repetitive operations.
- Limit switches shall be heavy duty type either lever or rotating cam operated.
- The limit switch contacts shall be rated at least for 10A at 110 V AC.
- The limit switches shall be housed in robust metallic oil and dust tight enclosure conforming to IP:65.
- At least 2 NO and 2 NC contacts shall be provided for each limit switch.

D. L.T. MOTOR CONTROL PANEL

1. Basic Design Parameters





- Power Supply system - 415 V+10%/-10% 3 phase and neutral 50 HZ +5%/-5%
- System Neutral
- Earthed
- Insulation level - 2.5 kV for 1 minute
- System short circuit level - 50 kA for 1 second.

2. Constructional Features

- Floor mounting, free standing with base channel for fixing on the inserts in the floor.
- Single front, totally enclosed.
- Enclosure conforming to IP:52 as per IS:2147-1962.
- Suitable for cable entry from bottom with detachable gland plate
- Rear access through removable rear cover.
- Minimum operating height of devices on panel to be 400mm and maximum operating height to be 1900 mm.
- Clear legible identification labels shall be provided for all compartment panels and control devices.
- To ensure good earth continuity, all bolted joints shall be provided with tooth spring washers.
- Two separate earthing terminals shall be provided for earthing.
- The motor control panel of the elevator shall be provided with base channel of 75 mm (ISMC 75).
- Painting shall be shade no. 631 as per IS:5-1978
- Pilot devices operable from the front.
- Components and devices accessible from the front.
- Protection against accidental contact with live parts while maintaining a compartment and keeping others in services.
- Compartment door interlocked with main power isolating devices.
- Bus bar sizes to be selected in accordance with the nominal current rating of incoming load break switch and for full short circuit power.

E. Incomers and Isolators

- The motor control panel shall have one incomer switch of AC 23 duty
- The incomers shall be provided with voltmeter and ammeters complete with fuse, selector switches and CTs.
- All switches shall be double break type.
- All fuses shall be HRC fuses and shall not be of bolted type in switch fuse units.

F. Contactors

- All contactors shall be AC4 duty as applicable with min. 25A rating.
- Shall have at least 2 NO + 2 NC auxiliary contacts with minimum rating of 16A at 110 V AC.
- For reversible drives mechanically interlocked, contactors shall be used.
- All coils shall be suitable for 110 V, AC with no economy resistor.
- Insulation of coils shall be class 'E' or better. Shall pick up positively at voltage between 85% and 110% of the rated value.

G. Thermal Overload Relay

- Bimetallic Triple Pole, ambient temperature compensated
- Inverse time lag, and reset type.
- Shall conform to IEC - 292-1.
- Shall have built in single-phase protection.
- At least one make and one break auxiliary contacts shall be provided.
- Manual reset push button shall be located on the compartment door.





H. Auxiliary Relays

- Coil voltage 110V AC
- 4 NO + 2 NC contacts rated for 10A

I. Timers

- Coil voltage 110V AC
- ON/OFF relay as required
- 2 NO + 2 NC contacts

J. Control Transformer

- Control transformer shall be double wound dry type conforming to IS: 2026-1977 with tapping at +/- 2.5% and +/- 5% on the primary side.

K. Switches & Fuses

- Isolating switches shall be triple pole/ double pole, air break, heavy duty type(MCCB), capable of safely breaking the full load current of the associated feeder.
- All MCCB shall be suitable for rated system fault level.
- Control circuit shall be protected by individual control MCB's with min.short ckt. rating 9kA and rating 16A.

L. Cables

All power cables for fixed wiring inside the premises shall be 1100 V grade, Copper Conductor, PVC insulated and sheath conforming to IS:1554 (Part1)-1988 armored or unarmored depending on application.

- All flexible cable shall be EPR insulated and CSP sheathed or better.
- Control cable shall be 1100 V grade, copper conductor PVC insulation and sheath conforming to IS:1554 (Part1)-1988.cable shall be armored or unarmored depending upon application.
- The motor for the elevator shall be squirrel cage induction motor with speed resistance control/VVVF control for controlling the speed during starting and stopping at landings

M. Earthing

All structure electrical equipment conduit/ Tray etc. shall be effectively grounded in accordance with Indian Electricity rules. Earthing conductors are to be connected with earthing grid of the building. Earthing on the car including interconnection with main grid) shall be under the tenderer's scope.

N. Wiring

- ☐ All wiring shall be accessible from the front and shall be done by 1.1 KV grade PVC insulated flexible copper wires.
- ☐ Not more than two connections shall be done at any one terminal.
- ☐ Interlocked type identification ferrules shall be provided.
- ☐ Auxiliary wiring shall be properly marked as per IS: 5578 -1984
- ☐ 20% spare terminals with a minimum of 6 no's shall be provided.
- ☐ All power terminals shall be stud type. All control terminals shall be Elmex type rated at least for 10A and suitable for terminating 2 no's 2.5sq. mm copper conductors.
- ☐ All hoist way and car wiring shall be done with armored cable as per IS:1554 (Part 1) - 1988 and IS:5571-1979 and flexible cable as applicable.
- ☐ The cables used in the elevator installation shall conform to latest revision of IS: 4289-1984.





☐ A trailing cable, which incorporates conductors for the control circuit, shall be separate and distinct from that which incorporates lighting and signaling circuits. All control and signaling cables shall have stranded copper conductor of minimum size 2.5-sq mm copper. 20% spare cores shall be provided in each control/ signaling cable.

O. VVVF DRIVE

1. Basic Design Particulars

☐ Rating as per class IV of IEC 146 viz., 100% continuous, 125% for two hours, 200% for 10 seconds

☐ The protection class shall be class I as per IEEE- 444 - Direct voltage capability

☐ Shall be able to maintain rated DC bus voltage at rated DC current at 94% rated AC voltage.

☐ The converter shall safely perform inverter duty at 90% rated voltage and rated DC voltage

☐ The drive shall be designed suitable for the following Input parameter variations:

- Input AC voltage : +/- 10%

- Frequency : + 5%/-5%

- Combined variation : +/- 9%

☐ Control and regulation equipment shall be designed suitable for the following parameters variations:

Voltage: +/- 10%

Frequency : +3%/- 6

2. VVVF assembly

The drive shall be Thyristor/Transistor/IGBT based three phase out put supply as per requirement. The Inverter shall be suitably rated to take the load of total system for a duration of app. 10 minutes.

The suitability of rating, control & indication for the battery, battery charger & Inverter shall be checked during approval of drawing for the above system. The Inverter shall be designed as per relevant IS & IEC standard.

P. Battery, Battery Charger

1. Battery unit.

Battery unit shall be maintenance free Nickel Cadmium type. The capacity of the battery shall be selected based on minimum site ambient temperature and shall be suitable to supply for short time rating of approx. 10 minutes to automatic rescue device control circuit, alarm bell & emergency lighting. The capacity of battery shall be supported with battery calculation and shall be checked at the time of approval of drawing.

2. Battery Charger

The charger shall have 3 phase full wave controlled rectifier bridge with their protective device. Input voltage shall be 415 V $\pm 10\%$ & -10% , 50 Hz $\pm 5\%$ & -5% . Charger shall be suitable for float charge and boost charging.





CSE01-FREIGHT LIFT (1 No.)		
S.NO	Items	Requirement as per Tender
	Type & Location	FREIGHT LIFT
1	Capacity :	
	a) No. of Passengers	
	b) Load	2.0 Ton
2	Speed	.75 mps
3	Floor Designation	Ground , 1st, 2nd, 3rd,4th,5th Floor,& Terrace
4	No. of stops	7
5	No. of openings	7
6	Opening position	All openings on same side
7	Lift Shaft	2700mm wide x 3200mm deep
8	Car	
9	Travel Height	Refer Drawing
10	Car Size	As per Manufacturer's design
11	Car Entrance	
	a) size	1800mm wide x 2350mm high
12	Pit depth	1800mm (Approx.)
13	Pit Positions	Ground Floor
14	Over Head room above last landing	4800mm (Approx.)
15	Machine room	<u>Machine Room Less</u>
16	Operation	Collective selective Automatic control
17	Position of counter weight	To be furnished by the Tenderer
18	Three way communication between car and security desk/ BMS Room	YES- to be provided
19	INTERFACE WITH FIRE ALARMSYSTEM TO STOP ELEVATOR AT THE NEAREST FLOOR AND "OPEN DOORS & KEEP THEM OPEN"	YES- to be provided
20	AUTO RESCUE DEVICE	YES- to be provided





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PHY01-FREIGHT LIFT (1No.)

S.NO	Items	Requirement as per Tender
	Type & Location	FREIGHT LIFT
1	Capacity :	
	a) No. of Passengers	—
	b) Load	2.0 Ton
2	Speed	.75 mps
3	Floor Designation	Ground , 1st, 2nd, 3rd,4th,& Terrace
4	No. of stops	6
5	No. of openings	6
6	Opening position	All openings on same side
7	Lift Shaft	2650mm wide x 3200mm deep
8	Car	
9	Travel Height	REFER DRAWING
10	Car Entrance	Center Opening
	a) size	1800mm wide x 2350mm high
11	Car Size	As per Manufacturer's design
12	Pit depth	1800mm (Approx.)
13	Pit Positions	Ground Floor
14	Over Head room above last landing	4800mm (Approx.)
15	Machine room	Machine Room Less
16	Operation	Collective selective Automatic control
17	Position of counter weight	To be furnished by the Tenderer
18	Three way communication between car and security desk/ BMS Room	YES- to be provided
19	INTERFACE WITH FIRE ALARMSYSTEM TO STOP ELEVATOR AT THE NEAREST FLOOR AND "OPEN DOORS & KEEP THEM OPEN"	YES- to be provided
20	AUTO RESCUE DEVICE	YES- to be provided





PHY03-FREIGHT LIFT (1 No.)		
S.NO	Items	Requirement as per Tender
	Type & Location	FREIGHT LIFT
1	Capacity :	
	a) No. of Passengers	
	b) Load	2.0 Ton
2	Speed	.75 mps
3	Floor Designation	Ground , 1st, 2nd, 3rd,4th Floor,& Terrace
4	No. of stops	6
5	No. of openings	6
6	Opening position	All openings on same side
7	Lift Shaft	2700mm wide x 3200mm deep
8	Car	
9	Travel Height	Ref. Drawing
10	Car Entrance	Center Opening
	a) size	1800mm wide x 2350mm high
11	Car Size	As per Manufacturer's design
12	Pit depth	1800mm (Approx.)
13	Pit Positions	Ground Floor
14	Over Head room above last landing	4800mm (Approx.)
15	Machine room	<u>Machine Room Less</u>
16	Operation	Collective selective Automatic control
17	Position of counter weight	To be furnished by the Tenderer
18	Three way communication between car and security desk/ BMS Room	YES- to be provided
19	INTERFACE WITH FIRE ALARMSYSTEM TO STOP ELEVATOR AT THE NEAREST FLOOR AND "OPEN DOORS & KEEP THEM OPEN"	YES- to be provided
20	AUTO RESCUE DEVICE	YES- to be provided



Make of Material

S.No	Material Description	Brand and Manufacturer
1	Copper conductor PVC insulated wires/stranded flexible wires (FRLS)	Finolex/Havells/RR Kable/Rajnigandha
2	Light fixtures LW-07-141-XXX-57-XX or equivalent	Wipro/Philips/Havells
3	Modular Switches, socket outlets and wiring accessories with moulded cover plates	Legrand(Myrius)/Crabtree(Athena)/Schneider (Opal)/ABB(Cheroin)
4	Cable Glands (Double Compression)	Comet/Dowell's/Jainson
5	Cable Lugs	Comet/Dowell's(Biller)/Jainson
	PVC Conduit (FRLS) and accessories (ISI approved)	AKG/Precision/BEC





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PART-III

TECHNICAL BID





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List of Documents to be submitted within the period of bid submission:

- (a) Online deposited receipt/acknowledgement against EMD.
- (b) Certificate of Registration for GST.
- (c) Certificate of Registration for EPF.
- (d) Certificate of Registration for ESIC.
- (e) Certificate of Registration for PAN Card.
- (f) Certificate of Registration for company/firm.
- (g) Certificate of Registration for Building & other construction works (BOCW).
- (h) Certificate of Registration for labor license.
- (i) Valid 'A' class electrical contractor's license issued from Govt. of M.P. or Govt. of India.
- (j) Duly signed & stamped of complete downloaded tender document with other required document mentioned in the tender
- (k) OEM authorized certificate required OEM authorized partner/vendor.
- (l) In case of OEM self declaration on letter head for manufacturing and SITC of lifts.





(B) Data Sheets to be filled up by the Tenderers/ Bidders

Sl. no.	Information	Format of submission	Compliance
1	Obligation / Compliance To Be Insured By Contractor	Annexure- "A"	Yes/No
2	Tax	Annexure- "B"	Yes/No
3	Indemnity by contractor	Annexure- "C"	Yes/No
4	Joint Venture Details (if applicable)	Annexure- "D"	Yes/No
5	Certificate in prescribed format	Annexure- "E"	Yes/No
6	Letter of Transmittal	Annexure- "F"	Yes/No

Note:

- 1 If necessary, additional sheets may be added to the forms.
2. Some of the forms will require attachments. Such attachments should be clearly marked as follows: Attachment 1 to Form # Attachment 2 to Form #. etc.



Annexure- "A"

Obligation/Compliance to be insured by Contractor

Sr. No.	Items	Compliance of Contractor to be filled by Contractor	
		YES	NO
1	Registration		
2	Compliance of provisions of Child Labor Act, and Workmen compensation Act		
3	To ensure treatment in case of accident / injuries suffered in Performance of work including wages and compensation under WC Act.		
4	Send accident report to Regional Labor Commissioner (RLC)		

Annexure –"B" TAX

Attach copy of current last three years' income tax returns details.





Annexure- "C" INDEMNITY

(To be filled by Contractor)

I on behalf of M/s hereby agree and undertake that I have understood all the safety rules and procedures and all staff working on behalf of M/s..... will follow all safety rules and procedures. I declare that I M/s will be responsible for any safety violations/ accident etc. IIT Indore will not be responsible in case of any accident / incident and will not compensate financially or otherwise.

I hereby declare that I am sole responsible on behalf of M/s.....

..... for giving such declaration.

Name of Indemnifier

Signature of Indemnifier

Stamp/Seal of the Indemnifier /Contractor





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Annexure- "E"

CERTIFICATE

(to be provided on letter head of the firm)

I hereby certify that the above firm has not been ever blacklisted by any Central/State Government/Public Undertaking/Institute on any account.

I also certify that the above information is true and correct. In every respect and in any case at a later date, if it is found that any details provided above are incorrect, any contract given to the above firm may be summarily terminated and the firm blacklisted.

Date:

Place:

Signature of Contractor





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Annexure-“F”

LETTER OF TRANSMITTAL

From:

To

The Project in Charge,
IIT Indore (MP).

Name of work: - “Installation, Testing , Commissioning of Freight Lifts at PHY-3 and PHY-1 with statutory clearances and making operational freight lift at CSE-1 at IIT Indore (At Risk & Cost).”

Sir,

Having examined the details given in Press Notice and bid documents 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 A to G 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 submit the requisite certified solvency certificate and authorize PIC, IIT Indore to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I / we also authorize PIC, IIT Indore to approach individuals, employers, firms and corporation to verify our competence 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 similar works:

Name of work

Certificate from

1.
2.
3.

1.
2.
3.

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/ cancellation of enlistment in case any information furnished by me / us found to be incorrect.

Enclosures:-

Seal of bidder

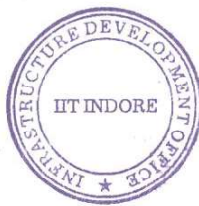
Date of submission

SIGNATURE(S) OF BIDDER(S)



(C) Data Sheets to be filled up by the Tenderers/ Bidders

Sl. no.	Information	Format of submission	Compliance
1	Financial Information	Form - "A"	Yes/No
2	Solvency Certificate	Form - "B"	Yes/No
3	Experience of Similar Nature of Works	Form - "C"	Yes/No
4	Performance Reports of above referred works in Form 'C'	Form - "D"	Yes/No
5	Structure & Organization details	Form - "E"	Yes/No
6	List of the projects under execution or awarded	Form - "F"	Yes/No
7	Compliance Sheet	Form - "G"	Yes/No





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FORM 'A'

FINANCIAL INFORMATION

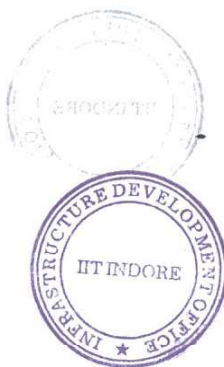
- I Financial Analysis - Details to be furnished duly supported by figures in balance sheet / profit & loss account (after tax) for the last five years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached).

Financial Year	15-16	16-17	17-18	18-19	19-20
Gross Annual turnover on construction works					
Profit/Loss					

- II. Financial arrangements for carrying out the proposed work.

Signature of Chartered Accountant with Seal.

SIGNATURE OF BIDDER(S)



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Solvency Certificate from Bankers of bidders in the prescribed Form "B".

FORM 'B'

FORM OF BANKERS' CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information that M/s / Shri..... 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 officer.

(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.





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FORM 'C'

DETAILS OF ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING THE LAST SEVEN YEARS ENDING PREVIOUS DAY OF LAST DATE OF SUBMISSION OF TENDERS

S. No.	Name of work/project and location	Owner or sponsoring organization	Cost of work 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 officer to whom reference may be made	Whether the work was done on back to back basis—Yes/No
1	2	3	4	5	6	7	8	9	10

*Indicate gross amount claimed and amount awarded by the Arbitrator.

Signature of bidder(s)





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FORM 'D'

PERFORMANCE REPORT OF WORKS REFERRED TO IN FORMS "C"

1. Name of work/project & location :
2. Agreement no. :
3. Estimated cost :
4. Tendered cost :
5. Date of start :
6. Date of completion :
 - (i) Stipulated date of completion :
 - (ii) Actual date of completion :
7. (a) Whether case of levy of compensation for delay has been decided or not? : Yes / No
(b) If decided, amount of compensation levied for delayed completion, if any. :
8. Performance Report
 - (1) Outstanding/Very
) Quality of work : Good/Good/Poor
 - (2) Outstanding/Very
) Financial soundness : Good/Good/Poor
 - (3) Outstanding/Very
) Technical Proficiency : Good/Good/Poor
 - (4) Outstanding/Very
) Resourcefulness : Good/Good/Poor
 - (5) Outstanding/Very
) General Behavior : good/Good/Poor

Dated:

Executive Engineer or Equivalent





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FORM 'E'
STRUCTURE & ORGANISATION

- 1 Name & address of the bidder
- 2 Telephone no./Telex no./Fax no.
- 3 Legal status of the bidder (attach copies of original document defining the legal status) :
 - i. An Individual
 - ii. A proprietary firm
 - iii. A firm in partnership
 - iv. A limited company or Corporation
- 4 Particulars of registration with various Government Bodies (attach attested photocopy)
Organization /Place of registration/Registration No.
 - 1.
 - 2.
 - 3.
- 5 Names and titles of Directors& Officers with designation to be concerned with this work.
- 6 Designation of individuals authorized to act for the organization
- 7 Has the bidder or any constituent partner in case of partnership firm, Limited Company /Joint Venture ever were convicted by the court of law? If so, give details.
- 8 In which field of E&M Engineering construction the tenderer has specialization and interest.
- 9 Any other information considered necessary but not included above.

Signature of bidder(s)





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FORM 'F'

List of the projects under execution or awarded

S. No.	Name of work/project and location	Owner or sponsoring organization	Cost of work in crores of rupees	Date of commencement as per contract	Stipulated date of completion	Upto date percentage progress so far	Slow progress if any and reasons thereof.	Name and address / telephone Number of officer to whom reference may be made	Remarks
1	2	3	4	5	6	7	8	9	10

Certified that the above list of works is complete and no work has been left out and that the information given is correct to my knowledge and belief.

Signature of bidder(s)





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FORM 'G'

Sr. No.	Description	Compliance	Remarks
1	Name of the Contractor/Agency		
2	Address & Contact number		
3	Name of person, who has signed the tender		
4	Details of EMD (Receipt/Acknowledgement) (copy should be attached)	YES/NO	
5	GST Registration number (copy should be attached)	YES/NO	
6	EPF registration number (copy should be attached)	YES/NO	
7	ESIC registration number (copy should be attached)	YES/NO	
8	Permanent Account Number (copy should be attached)	YES/NO	
9	Company/Firm Registration Number (copy should be attached)	YES/NO	
10	Building & other construction works (BOCW) Registration (copy should be attached)	YES/NO	
11	Labour License Registration (copy should be attached)	YES/NO	
12	Valid "A" Class Electrical Contractor license. (copy should be attached)	YES/NO	
13	Duly signed & stamped of complete downloaded tender document. (copy should be attached)	YES/NO	
14	OEM authorized certificate for OEM authorized partner/vendor	YES/NO	
15	OEM self declaration on letter head for manufacturing and SITC of lifts.	YES/NO	





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PART-IV FINANCIAL BID



PRICE BID

PRICE BID - Schedule of price bid in the form of BOQ format:

1. The below mentioned Financial Proposal/Commercial bid format is provided as BoQ along with this tender document at <https://eprocure.gov.in/eprocure/app>
2. Bidders are advised to download this BoQ.xls as it is and quote their offer/rates in the permitted column and upload the same in the commercial bid.
3. Bidder shall not tamper/modify downloaded price bid template in any manner. In case if the same is found to be tampered/modified in any manner, tender will be completely rejected and EMD shall be forfeited.
4. Any element of cost, taxes, duties levies etc. not specifically indicated in the BOQ, shall not be paid by the purchaser. If GST amount is not quoted in the BOQ (Financial Bid), the total cost will be treated as inclusive of GST. No further communication will be entertained later or else the EMD will be forfeited.
5. The tender shall remain valid for acceptance for 180 days, from the date of tender opening.

OTHER CONDITIONS FOR PRICE BIDS

1. No unilateral revision in price will be admissible.
2. INCOTERMS (in case of imported item) should be clearly mentioned on the bid
3. Rates should be quoted in the accounting units (A/U) mentioned in this tender. Rates must be quoted clearly on free delivery basis at IIT Indore and total value is also indicated in words.
4. Any optional indicated in techno-commercial bids must be priced separately.
5. In case spares/accessories are applicable, their list and price should be clearly indicated separately.
6. The price must be stated for each item separately. The percentage of reduction, in the unit price should also be quoted, should an order to that extent be placed with you.

Signature of the Tenderer

Name of the Firm:

Contact No.:

Email:

Seal:



BLANK

Signature Not Verified

Digitally signed by SHASTRI VIJAYENDRA
Date: 2020.11.18 16:12:43 IST
Location: eProcure-EPROC