AN ISO 9001 & 14001 COMPANY

TENDER DOCUMENT

e-TENDER No: ERO/MMD/710/1096

FOR

e-Tender For Supply, Installation, Testing & Commissioning and handing over of Elevators & associated electrical works for 1st Phase (B+G+IV) of Administrative Building of New Town Kolkata Development Authority at Plot No. DG/13, Premises No.04-3333, Action Area – 1D, New Town Kolkata.

VOLUME – II

Additional Purchase Conditions (APC), Technical Specification & Approved Make and Drawing

ENGINEERING PROJECTS (INDIA) LIMITED

(A GOVT. OF INDIA ENTERPRISE)

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ADDITIONAL PURCHASE CONDITION (APC)

The following Additional Purchase Condition shall be read in conjunction with General Purchase Conditions. If there are any provisions in these Additional Purchase Conditions, which are at variance with the provisions of General Purchase Conditions, the provisions in these Additional Purchase Conditions shall take precedence.

1.0 Introduction

New Town Kolkata Development Authority, intends to undertake the construction of Administrative Building, at Plot No. DG/13, AA-1D Premises No.04-3333, Action Area – 1D, New Town, Kolkata.

New Town Kolkata Development Authority (NKDA) is keen to develop their own office in the heart of this township which is eventually become a multiple/corporation office. The Authority has a dream that this multifunctional city will get a unique landmark building as its office with good aesthetics, which will enhance urbanscape.

In addition to providing of office facilities along with Conference room & Cafeteria, the building will also have landscaping features like foundation, water bodies, terrace garden etc. Internal roads & pathway area lighting will be of standard with good architectural views. Within the project area there will also be security & management staff room.

2.0 Description of the Project:

- The project site is located at Premises no: 04-3333, DG-13, Action area-1D, New Town, Kolkata
- The area of the plot is approximately 7001.888 Sq.m.
- Total Built up Area is 14009.016 Sq.m The first phase built up area is 9619.269 Sq.m.
- Proposed FAR to be consumed is 2.001. The first phase FAR will be 1.37
- Proposed Ground Coverage is 19.71%.

3.0 Scope of Work:

The brief scope of work as mentioned below included in this tender shall include Supply, Installation, Testing & Commissioning and handing over of Elevators (3 passenger & 1 food lift) & associated electrical works for Construction of Administrative Building, at Plot No. DG/13, Premises No. 04-3333, Action Area – 1D, New Town, Kolkata.

Apart from above, any other services not covered above but required as per direction of EPI are deemed to be included in the scope of work. The work is to be carried out on item rate basis as per bill of quantities and tender conditions.

4.0 Conflict in Documents

If there are varying or conflicting provisions made in anyone document forming part of the contract, the Engineer-in-charge of EPI shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the Supplier.

5.0 Price:

The following shall be also read with clause no 03 of GPC:
‘The quoted price shall be inclusive of all Taxes & Duties including GST.’

Freight, Insurance, packing, forwarding, loading & unloading to be included in the quoted rate.

6.0

a. The set of tender documents shall contain one set of hard copy of tender drawings. The original hard copy of tender drawings shall be returned along with the tender documents duly signed and stamped by the tenderer and shall form part of agreement.

b. The tenderer who have downloaded the tender documents and drawings from EPI’s website shall also submit one set of hard copy of tender documents along with set of tender drawings duly signed and stamped by the tenderer and shall form part of agreement.

7.0 Specifications

i) All works are to be carried out in accordance with the General Conditions of Contract and Specifications including mode of measurement of West Bengal P.W.D Schedules in force at the time of acceptance of the tender.

ii) The specification for work not covered by the specifications laid down in the PWD (WB) Schedules, DSR or Schedule of MES, CPWD shall be followed.

iii) Items of Works not covered in the above schedules should be governed by I.S.I code of Practice, National Building Code, Technical specifications as laid in this tender document, and as per best practice according to the Engineer-in-Charge and the Consultant.

iv) In addition to the above, the Technical specifications as mentioned in the Tender documents shall be applicable.

v) This contract shall be governed by the Indian Laws for the time being in force. The contract is confidential and must be strictly confined to the purposes of the contract.

vi) The contractor shall provide everything necessary for the proper execution of the works according to the intent and meaning of the specifications and drawings taken together whether the same may or may not be particularly shown or described therein provided that the same can be reasonably inferred there from and if the contractor finds any discrepancy in the specifications & drawings and between the drawings, he shall immediately and in writing refer the same to the employer who shall decide which is to be followed.

vii) The Work Order / LOI will be issued by EPI and handing over of the site and date of commencement of the contract shall be within 10 (ten) days of issue of such letter.
8.0 Taxes and Duties
The entire job will be treated as Work Contract as defined in Section -2 (119) of the CGST act 2017. All Taxes, Duties, Statutory levies such as GST or any other similar Tax in the State concerned, Cess, Labour cess, Octroi, Entry Tax, Turn over Tax, Consignment Tax, Toll Tax, Royalties, Levies and other Tax(es) or Duty(ies) etc as imposed by State / Central / Local Government Bodies from time to time for the Works, are included in the contract price. Income Tax and other Deductions of Taxes as applicable shall be deducted from RA Bills / due payment of the Supplier.

a) The bidder / supplier must be registered with GST and should have valid GSTIN number.
b) The bidder/supplier must submit as an compliances of GST Act, the invoices in GST compliant format failing which the GST amount shall be recovered/adjusted by EPI without any prior notice from the next invoices or available dues with EPI

c) The bidders/suppliers are requested to update/upload the GST/Taxes data periodically so as to avail ITC credit by EPI failing which it shall be recovered/ adjusted by EPI without any prior notice from the next invoices or available dues with EPI.
d) Rates to be quoted in this tender all inclusive with all taxes and duties etc. including GST
e) Bidder while quoting the rates in the tender must also consider the ITC credit applicable for the works, if any.
f) In case any reduction in rate of GST or other taxes in future or the project getting exemption status prior to the last date of bid submission or afterwards, the subcontractor shall pass on the benefit to EPIL immediately, failing which EPIL shall have the right to recover the differential amount from the amounts due to sub-contractor. Further, in case of any increase in rate of GST or other taxes in future or the project losing exemption status prior to the last date of submission or afterwards, the said increase of taxes shall be paid/ reimbursed to the subcontractor, subject to the condition that the client reimburses the said increased taxes to EPIL.

9.0 Retention Money
The Retention Money shall be deducted from each running bill of the supplier at 8% (eight percent only) of the gross value of the Running Account Bill. The Earnest Money Deposited by the tenderer in the form of Demand Draft will be treated as part of the Retention Money. The Retention Money shall be refunded to the supplier after expiry of Defects Liability Period (referred to in Clause No- 74) or on payment of the amount of the final bill whichever is later.” If the amount of Retention Money deduction in cash is more than Rs.10.00 lakhs (Rupees Ten lakhs only), the excess amount can be refunded to supplier against submission of Bank Guarantee of equivalent amount from a Nationalized bank / Scheduled Bank in the prescribed proforma of Performance Guarantee of EPI.

10.0 Extra or Deviation Items
The rates of extra or deviation items for EPI are to be derived from PWD (WB) current schedule of rates or DSR or MES or item rate analysis. If not possible, rates will be derived as cost as per market analysis. After the rates approved by client (NKDA), EPI will keep margin of 7% and pay 93% of the approved cost to the tenderer.

11.0 Security Deposit cum Performance Guarantee
Clause No.09 and 18 of GPC stands deleted and shall be read as under:
The Security Deposit cum Performance Guarantee is the 2% of the contract value. However Earnest Money already deposited may be converted as security Deposit Cum Performance Guarantee.
A final certificate of rectification of all defects pointed out by the handing over taking over board detailed by NKDA/EPI and / or during defect liability period shall be obtained from the nominated officer of NKDA/EPI prior to releasing of the Security Deposit by EPI.

12.0 Arbitration

Modification of arbitrations clause no. 23.0 of General Purchase Conditions (GPC).

Clause No- 76.0 ARBITRATION

Clause No- 76.1 Before resorting to arbitration as per the clause given below, the parties if they so agree may explore the possibility of conciliation as per the provisions of Part III of the Arbitration and Conciliation Act, 1996 as amended by Arbitration and Conciliation (Amendment) Act, 2015. When such conciliation has failed, the parties shall adopt the following procedure for arbitration:

(i) Except where otherwise provided for in the contract, any disputes and differences relating to the meaning of the Specifications, Design, Drawing and Instructions herein before mentioned and as to the quality of workmanship or materials used in the work or as to any other questions, claim, right, matter or things whatsoever in any way arising out of or relating to the Contract, Designs, Drawings, Specifications, Estimates, Instructions, or these conditions or otherwise concerning the works of the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the Sole Arbitrator appointed by the Chairman & Managing Director (CMD) of Engineering Projects (India) Limited (EPI) or any other person discharging the functions of CMD of EPI. The person approached for appointment as Arbitrator shall disclose in writing circumstances, in terms of Sub-Section of Section (12) of the Arbitration and Conciliation Act, 1996 as amended by Arbitration and Conciliation (Amendment) Act, 2015 as follows:

a) such as the existence either direct or indirect, of any past or present relationship with or interest in any of the parties or in relation to the subject- matter in dispute, whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to his independence or impartiality; and

b) Which are likely to affect his ability to devote sufficient time to the arbitration and in particular his ability to complete the entire arbitration within a period of twelve months.

c) The Arbitrator shall be appointed within 30 days of the receipt of letter of invocation of arbitration duly satisfying the requirements of this clause.

(ii) If the arbitrator so appointed resigns or is unable or unwilling to act due to any reason whatsoever, or dies, the Chairman & Managing Director aforesaid or in his absence the person discharging the duties of the CMD of EPI may appoint a new arbitrator in accordance with these terms and conditions of the contract, to act in his place and the new arbitrator so appointed may proceed from the stage at which it was left by his predecessor.

(iii) It is a term of the contract that the party invoking the arbitration shall specify the dispute/ differences or questions to be referred to the Arbitrator under this clause together with the amounts claimed in respect of each dispute.
(iv) The Arbitrator may proceed with the arbitration ex-parte, if either party, in spite of a notice from the arbitrator, fails to take part in the proceedings.

(v) The work under the contract shall continue as directed by the Engineer-In-Charge, during the arbitration proceedings.

(vi) Unless otherwise agreed, the venue of arbitration proceedings shall be at the venue given in the “Memorandum” to the “Form of Tender”.

(vii) The award of the Arbitrator shall be final, conclusive and binding on both the parties.

(viii) Subject to the aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 as amended by Arbitration and Conciliation (Amendment) Act, 2015 or any statutory modifications or re-enactment thereof and the Rules made thereunder and for the time being in force shall apply to the arbitration proceedings and Arbitrator shall publish his Award accordingly.

Note: Notwithstanding anything contained herein above, this clause shall not be applicable where the dispute is between EPI and another Public Sector Enterprise or Govt. Department for which a separate Arbitration Clause is provided vide Clause No. A given below:-

A. ARBITRATION BETWEEN PUBLIC SECTOR ENTERPRISES INTERSE/GOVERNMENT DEPARTMENTS

1. In the event of any dispute of difference relating to the interpretation and application of the provisions of the contracts, such dispute or differences shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 and The Arbitration and Conciliation Act, 2015 shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law-Secretary or the Special Secretary/Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator”.

2. Subject to any amendment that may be carried out by the Government of India from time to time the procedure to be followed in arbitration shall be as is contained in F. No. 4(1)/2013-DPE(PMA)/FTS-1835 Dated: 11/04/2017 of Department of Public Enterprises, Ministry of Heavy Industries & Public Enterprises or any modification issued in this regard.

13.0 Jurisdiction
Clause No. 24 of GPC stands modified as under:

The courts in Kolkata alone will have jurisdiction to deal with matters arising from the contract, to the exclusion of all matters.
### 14.0 Completion Schedule

<table>
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<th>Description of work to be completed during the period specified under column no. 2</th>
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<td>From the date of start of 1st month to the end of 15th days of 1st month.</td>
<td>Submission of GA Drawings for approval from NKDA/EPI.</td>
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<tr>
<td>2</td>
<td>From the 16th day of 1st month up to the end of 15th day of 3rd month.</td>
<td>Manufacturing &amp; Supply of Equipment. All these items shall be inspected by EPI/NKDA.</td>
</tr>
<tr>
<td>3</td>
<td>From the 16th day of 3rd month to end of 4th month.</td>
<td>Installation testing and commissioning of Lift system &amp; handing over of Elevator to EPI/NKDA with proper documentations.</td>
</tr>
</tbody>
</table>

**Note:** In case of mismatch in financial and physical progress as at col. No. 2 & 3, above at any milestone stage, the financial progress shall be considered for levy of compensation of delay, if any. All infrastructural development works shall be completed within the stipulated time frame.

### 15.0 Plant & Machinery

All plant & machinery required for execution of work shall have to be arranged by the supplier at his own cost.

The supplier will not be allowed to take out equipments from the site without the written permission of Engineer-in-Charge.

### 16.0 THE FINAL BILL

The **THE FINAL BILL** will be submitted by the supplier within 90 days from the date of acceptance of completion of work accompanied by the following documents:

a) Completion certificate issued by the Engineer-in-Charge specifying the handing over of the work including list of inventories (fittings & fixtures).

b) Computerized stage wise payment schedule.

c) No claim certificate by the contactor.

d) No claim certificate from the sub-agencies / vendors engaged by the supplier.

e) ‘As built’ drawings.

f) Periodical services and measurement books.

g) Drawings for layout of underground cables and details showing location of sluice valves, electric cable joints etc.

h) All operation and maintenance manuals.

i) All statutory approvals from various state / central govt. local bodies, if required for completion & handing over of the work as included in scope of supplier.

j) Manufacture’s guarantee of various machines / equipments installed as part of works.

### 17.0

The Tenderers must understand that the items marked in schedule of work are actual items to be executed. Alteration, omission, deduction or addition from / to these items is at the discretion of the employer without effecting the terms of the contract.

### 18.0 ENVIRONMENTAL CONSIDERATIONS

The supplier shall be concerned with the impact of his work upon the Environment. This
applies to the effect upon the residential community, adjacent industrial facilities and upon the area outside the site boundary. Areas of concern will include but are not limited to:

i) Use of clean fuels to minimize air polluting emissions.
ii) Control of other air pollutants.
iii) Recovery and recycling of usable materials.
iv) Control of vehicle noise
v) Control of noise from power facilities.
vi) Limitation of vibrations.
vi) Preservation of natural land to the extent possible.
vii) Preservation of archaeological features.

19.0 Custody of Drawings

All the approved Drawings shall remain in the sole custody of the Engineer-in-Charge but one copy thereof shall be furnished to the supplier free of charge. The supplier shall provide and make at his own expenses any further copies required by him. At the completion of Contract the supplier shall return to the Engineer-in-Charge all drawings provided under the Contract.

One copy of the Drawings, furnished to the supplier as aforesaid, shall be kept by him on the site and the same shall at all reasonable times be available for inspection and use by the Engineer-in-Charge and his Representatives and by any other person authorized by the Engineer-in-Charge.

20.0 Delay in Getting Site of Work

If at any time after the issue of work order, the work, and/or any part thereof cannot be started or shall remain suspended due to public opposition, non-availability of site, delay in shifting public utilities or for any other reason whatsoever within the period of completion of work, the Supplier shall be granted necessary extension of time. But he shall have no claim to extra payment or compensation whatsoever on the grounds of above delay.

If, however, the above hindrances are not removed within the schedule time and the Supplier is not agreeable to execute further works in the extended time, the Contract may be terminated and the Supplier shall have no claim to any payment on account of idle labour, establishment etc. or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the aforesaid work in full or in part.

21.0 Survey : Layout and Access

The Supplier shall satisfy himself regarding the correctness of the Lift pits, Lift wells provided at site etc. as shown in the drawings or given in the specifications. Before starting the work he shall also carry out survey of the whole work site jointly with the Department at his own cost. Discrepancies noticed between Departmental drawing and the joint survey shall be informed in writing to the Engineer-in-Charge and got corrected by the Engineer-in-Charge. Such deviations as may arise out of the joint survey shall not vitiate the provisions of contracts and shall not entitle the Supplier to any extra payment of claim in any way.

After the joint survey a survey plan shall be prepared by the Supplier at his cost and got approved by the Engineer-in-Charge. Reference line and points shall be established by the
Supplier at his own cost so as to serve as reference and “Dimensional Checking” of works. He shall prepare and submit a plan in quadruplicate to the E.I.C. showing such reference points with their full description at his cost.

The Supplier shall provide for all arrangements labour, equipments and materials needed for carrying out survey, setting out, layout checking, inspections measurements, testing at his own cost for which no separate payment will be made.

The Supplier shall also provide proper approach and access to all the works and stores including clearance of sites at his own cost.

22.0 Arrangement of Land

If on account of restriction of space within the project site, the Supplier experiences difficulties (on installation of plant and machinery and also) in stacking construction materials within the project site, he may have to arrange for lands (Road side flank, private land etc.) adjacent to the project site on his own and at his cost. The Supplier will not be entitled to any payment or any other incidental charges caused due to such arrangement.

23.0 Fire Fighting Arrangement

The Supplier shall provide at his own cost suitable arrangement for fire fighting. For this purpose he shall provide requisite number of Fire Extinguishers and adequate number of buckets, some of which are to be always filled with sand and some with water. These equipments shall be provided at suitable prominent and easily accessible places and shall be properly maintained.

24.0 Terms & Stages of Payment for the Gross Work Done at Site.

Sixty percent (60%) of the BOQ rate of the item/ equipment/ material shall be paid on receipt at site, and on production of Inspection Report issued by the Inspector (in case inspection is done at manufacturing unit), Maker's Test Certificate, consignment note, and Interim Joint Inspection report after proper storage at site and submission of Indemnity Bond in the prescribed pro-forma.

Twenty percent (20%) of the BOQ rate of the item/ equipment/ material shall be released after erection, testing & commissioning and final inspection.

Ten percent (10%) of the BOQ rate of the item/ equipment/ material shall be released after the Handing Over and getting the NOC from the statutory authority of the item / equipment / materials by EPI / Client.

Balance ten percent (10%) of the BOQ rate of the item/ equipment/ material shall be released after expiry of the defects liability period as per Clause No. 62 of APC

25.0 Reduced Rates and Part Rates

25.1 Reduced rates as decided by the E.I.C. shall be allowed for the works, which in the opinion of the E.I.C. are not done in strict conformity with specification and schedule of works but are acceptable. The relevant item rates in such cases shall be reduced and approved by the Tender Accepting Authority, on the basis of analysis, which shall be binding to the supplier.
Works which are not in conformity with the specification and not acceptable in the opinion of E.I.C. will not be paid for and the cost of rectification or dismantling of such unacceptable work will have to be fully and solely borne by the supplier.

25.2 Part payments for items, which are not fully complete as per specification of the contract, may be made by EPI/NKDA in cases when it is ensured that the items can be completed as per specification, in following days, by the supplier, when so allowed by the E-I-C. Application of this provision shall be very restricted and can only be exercised under specific case wise approval of the E-I-C strictly.

26.0 Supplementary and Substituted works:

a) NKDA/EPI may require the supplier to do some additional work, newly or in substitution of items in the schedule of work, in the interest of the work under the contract. In such cases ‘Supplementary’ and / or ‘Substituted’ items may result. The specification and other details shall be governed and directed by the Tender Accepting Authority. The rate of such items shall be finalized and approved by competent authority of NKDA/EPI. The claim sheets, serially in triplicate, shall have to be furnished by the supplier, duly checked and forwarded, with item wise comments of approval by E-I-C. The claim sheet forms a part of the original contract and shall have all the relevant bearings of the contract. The limitations of such claims shall be governed by prevailing financial powers and provisions of NKDA.

These claims are usually termed as ‘extra claims’ and relates to extra works. Thus, no such extra works can be taken up by the supplier until their written appeal is allowed by the Tender Accepting Authority.

Notwithstanding to what has been stated elsewhere, any item of work which can be legitimately considered as not stipulated in the ‘Scope of work’ of the contract, but becomes necessary as a reasonably contingent during actual execution of the work, it will have to be done by the supplier as and when directed by the E-I-C.

The admissibility of any claim of supplementary / substituted item or the acceptance thereof including award of item wise rates and all other related matters will rest with the tender / quotation accepting authority and shall be binding to all concerned.

b) Rates for Supplementary and Substituted item of works: The schedule of rates shall mean the schedule of rates of the Presidency circle, PWD, West Bengal, DSR, MES or any references made in similar other authorities, as been settled by NKDA/EPI, applicable during the tenure of this contract. Rates for any other item (or part thereof), which are not covered in the said schedule of rates, will be analyzed from various other references and market rates, in which usual profit and overhead (as per state PWD schedule) will be included.

27.0 Time of Completion

The entire work as per offer shall be completed within 4 (Four) months from the date of issue of work order. The time of completion is firm and final and supersedes any other time mentioned elsewhere in any clause(s) of tender document.

The period of completion given includes the time required for mobilization and testing as well, rectifications, if any, re-testing and completion in all respects to the entire satisfaction of the Engineer-in-Charge including the monsoon season.
The Supplier shall scrupulously adhere to the targets/program as envisaged in his micro-plan of work program by deploying adequate personnel and construction tools and tackles and he shall also supply all materials of his scope of supply in time to achieve the targets set out.

Time is the essence of contract and the allotted work must be completed within the specified time. Extension of time may be granted in very exceptional circumstances. If the work gets delayed due to the reason beyond control of the successful bidder. These clause of extension of time will have precedence over any other similar clauses. If they are at variance with this clause .There will be penalty for non completion of the work in time as indicated elsewhere.

**28.0 Information to be supplied by the Supplier during the execution period.**

A senior representative of the SUPPLIER shall attend weekly meetings at the site and in addition, meetings as arranged by the EMPLOYER to discuss the progress of work and sort out problems if any and ensure that the work is completed in the stipulated time. The SUPPLIER shall submit to the Engineer-in-Charge, every fortnightly:

- Detailed industrial statistics regarding the labour employed by him daily. A fortnightly progress report along with requisite photographs.
- Special incident at site.
- Whether the work is progressing according to schedule, or not. If not, what are the problems and the remedial measures to be taken to regain schedule.
- Record of the approvals by EMPLOYER
- Record of the discussions by EMPLOYER
- Fortnightly Construction Schedule
- Monthly Construction Schedule

Detailed Schedule indicating when the REPRESENTATIVE’S presence is required at site.

**29.0 The Supplier shall comply with all the provisions of the following statutory acts or any modifications thereto and the rules made there under from time to time.**

- Indian Factories Act 1948
- Payment of Wages Act 1936
- Minimum Wages Act 1948
- Employers Liability Act 1938
- Apprentices Act 1961
- Workmen’s Compensation Act 1923
- Industrial Disputes Act 1947
- The Maternity Benefits Act 1961
- Contract Labour (Regulation and Abolition) Act 1970
- Employment of Children Act 1933
- Provident Funds and Miscellaneous Provisions Act 1952
- The Employee’s Pension Scheme 1995

**30.0 Should a report be made by an Inspecting Officer, as defined in the Contract Labour (Regulation and Abolition) Act 1970, EPI shall have the right to deduct from any money due to the Supplier any sum required, or estimated to be required, for making good the loss(es) suffered by a worker or workers by the reason of non-fulfilment of the Conditions of the Contract relating to the benefits of workers, non-payment of wages or**
of deduction made from their wages which are not justified by the terms of the Contract or non-observance.

31.0 The Supplier shall indemnify the employer against any payments to be made as hereunder and for the observance of the provisions of the aforesaid Acts.

32.0 In the event of the Supplier committing a default or breach of any of the provisions of the aforementioned Acts, as amended from time to time, of furnishing any information or submitting or filling in any Form/Register/Slip under the provision of these Acts which is materially incorrect, then on the report of the Inspecting officers, the Supplier shall, without prejudice to any other liability, pay to the employer a sum not exceeding Rs. 1000.00 as Liquidated Damages. This shall be applied to each incident for every default, breach or furnishing of, submitting, making and/or filling-in materially incorrect statements, the exact amount shall be fixed by the Engineer in Charge.

33.0 In the event of the Supplier committing a default or breach of any of the provisions of the aforementioned Acts, as amended from time to time, of furnishing any information or submitting or filling in any Form/Register/Slip under the provision of these Acts which is materially incorrect, then on the report of the Inspecting officers, the Suppliers shall, without prejudice to any other liability, pay to the employer a sum not exceeding Rs. 1000.00 as Liquidated Damages. This shall be applied to each incident for every default, breach or furnishing of, submitting, making and/or filling-in materially incorrect statements, the exact amount shall be fixed by the Engineer in Charge.

In the event of the Supplier’s default continuing in this respect, the Liquidated Damages may be increased to Rs 100.00 per day for each day that default occurs up to a maximum of one percent (1%) of the Contract Amount.

34.0 The Engineer in Charge shall deduct such amounts from the interim application for Payment or the Security Deposit of the Supplier and credit the same to the Welfare Fund constituted under these Acts. The decision of the Employer in this respect shall be final and binding.

35.0 SPECIFIC CONDITIONS (Part-A)

A. Operation phase :

The project proponent shall obtain necessary permissions from the New Town Electrical Supply Co. through NKDA/EPI in connection with drawing approval towards installation, layout / testing & commissioning of Elevators if required.

Noise barriers will be provided at appropriate locations so as to ensure that the noise levels do not exceed the prescribed standards.

The solid waste generated should be properly collected, segregated before disposal to the City municipal facility.

Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored after commissioning of the project.
B. Elevator

The supplier shall comply with legal orders and by laws of other local bodies. The supplier shall give to the Municipality, Police, Local Bodies and concerned Government authorities all necessary notices relating to works that may be required under the law and obtain all requisite licenses, permissions for temporary obstructions, enclosures, collection and stacking of materials, etc. The supplier shall pay at his own cost all fees, taxes and charges that may be payable on account of these operations in executing the contract. Nothing extra shall be paid by EPI on this account.

The supplier shall be bound to follow the instructions and restrictions imposed by the administration / Police authorities on the working and / or movement of labour, materials etc. nothing extra shall be payable due to less/ restricted working hours at site or any detours in movement of vehicles.

C. Licenses of Elevator

The supplier shall arrange for obtaining the license for the operation, NOC and approval of drawings for lift and plant etc as required from the local bodies at his own cost & nothing extra shall be payable.

i) The construction of proposed Building being in Urban Area, the supplier shall have to make his own arrangements for getting the permission for plying trucks or any Plant & Equipment for execution of works from the Police Department at his own cost. No excuse as to delay in work due to non-availability of permission shall be entertained.

ii) The work shall be carried out in accordance with the drawings approved by the EPI/ NKDA. Before the commencement of any item of work, the supplier shall correlate all the relevant architectural and structural drawings issued for the work and satisfy himself that the information available there from is complete and unambiguous, the discrepancy, if any, shall be brought to the notice of Engineer-In-Charge before the execution of work. The supplier alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and / or incomplete information. Nothing extra shall be paid on this account.

iii) The supplier shall give performance tests of the entire installation (s) as per specifications and drawings before the work is finally accepted and nothing extra whatsoever shall be payable to the supplier for these performance tests.

36.0 GENERAL CONDITIONS (Part-B)

1) All the laborers to be engaged for construction works should be screened for health and adequately treated before the issue of work permits.

2) Financial provision should be made by the project proponent in the total budget of the project for implementation of the suggested safeguard measures.

3) NKDA/EPI reserves the right to add additional safeguard measures subsequently, if found necessary and to take action including revoking of the environment clearance under the provisions of the environmental (Protection) Act, 1986 , to ensure effective implementation of the suggested safeguard measures in a time-bound and satisfactory manner.

The supplier is to obtain license from the registering officer & assistant labour commissioner of the
respective division /office under the contract labour (Regulation and abolition ) act 1970 and rule framed there under and to submit the same to the concerned EIC within seven days from the date of issue of work order.

Any Typographical mistake /omission if found may immediately be brought to the notice of the authority for rectification. In case of any inadvertent typographical mistake in the specific price scheduler of rate, the same will be treated to be so corrected as to confirm with the prevailing relevant schedule of rates and /or technically sanctioned estimate.

37.0 Insurance

Clause 5 of GPC stands deleted and shall be read as below.

Supplier is required to take Contractor’s All Risk Policy or Erection All Risk Policy (as the case may be) including Marine Insurance etc. from an Approved Insurance Company in the joint name with EPI and NKDA and bear all costs towards the same for the full period of execution of works including the defect liability period for the full amount of contract against all loss or damage from whatever cause arising for which he is responsible under the terms of the contract and in such manner that EPI and the Supplier are covered during the period of execution of works and/or also covered during the period of defect liability for the loss or damage as under:-

a) The work and the temporary works to the full value of such works.

b) The materials and other things brought to the Site for their full value.

Supplier shall submit to EPI copies of all such insurance policies and receipts for payment of current premium and also whenever required by EPI the Supplier shall produce the original policy or the policies of insurance and the receipts for payment of the current premiums.

38.0 Electricity & Water

To be arrange by supplier on his own cost.

39.0 Liquidation Damages

Contractor / Supplier shall be liable to pay Liquidity Damages equivalent to an amount equal to one percent (1%) on the full tendered amount / contract sum for the whole work for every day that the due quantity of work remains incomplete or unfinished provided always that the entire amount of liquidity damages to be paid under the provision of the clause shall not be exceeding on the 10% on the accepted tender amount / contract sum of the work as shown in the tender.

40.0 Watching and Lighting

The supplier shall in connection with the works provide and maintain at his own cost all light, guards, fencing and watching when and where necessary or as required by the Engineer-in- Charge, for the protection of the works, or for the safety and convenience of the existing plant supplier’s employees, employers supervisors or for any other reason deemed fit by the Engineer-in-Charge.
41.0 Discrepancies

Should any discrepancy appear in any of the documents and drawings included in this contract or between different parts of the same documents or any ambiguity or insufficiency of information the supplier shall point out the same to the Engineer-in-Charge in writing and receive his instructions, explanations or decision in the matter. Decision of Engineer-in-Charge is final and binding on the Supplier.

42.0 Workmen’s Compensation

In every case in which by virtue of the provisions of the Workmen’s Compensation Act, 1923, and any other relevant Acts and Rules, compensation to a workman employed by the supplier, is payable, then this should be done by the Supplier. If the Department is obliged to make any compensation under the said Rules and Acts, then the amount shall be recovered without prejudice, from the bills and dues of the supplier. The Department shall not be bound to contest any claim made against it in respect of workmen’s compensation under Section 12 sub section 1 of the said Act, except on the written request of the supplier and upon his giving to NKDA/EPIL full security for all the costs for which NKDA/EPIL might become liable in consequence of contesting such claims.

43.0 Supplier’s Employees

No labour below the age of eighteen years shall be employed on the work.

Any labour supplied by the Supplier to be engaged on the work on day work basis either wholly or partly under the direct order or control of his representative shall be deemed to be a person employed by him.

The Supplier shall comply with the provision of all labour legislation including the requirement of the Payment of Wages Act and the rules framed there under and modifications thereof in respect of men employed by him in carrying out the contract.

The Supplier shall comply at his own cost with any order or requirement of any Health Officer of the State or any local authority and the Engineer-in-Charge regarding the maintenance of proper environmental sanitation of the area where the labourers are housed or accommodated, for the prevention of any communicable diseases. The Supplier shall provide, maintain and keep good sanitary condition and provide facilities for potable water at all times for the use of men engaged on the work and shall remove and clear away the same on completion of the work. Adequate precaution shall be taken by the Supplier to prevent nuisance of any kind in the site of work.

The Supplier shall provide efficient medical attendant and care for his staff and for the workmen employed to the satisfaction of the Engineer-in-Charge or his representative. The Supplier shall arrange to provide first aid and treatment facilities to the labourers engaged on the works and shall within 24-hours of the occurrence of any accident at or about the site in connection with the execution of the work, report each accident to the Engineer-in-Charge and also to the competent authority where such report is required by law.

44.0 Safety Measures and Public Convenience

The Supplier shall in the course of execution of the work take all necessary precautions for the protection of all persons and property at his cost.
The entire site of works shall be well illuminated from sunset to sunrise at his cost.

The Supplier shall take adequate measures to protect the work and prevent accidents during the Project work and prevent accidents during the construction. He shall provide and maintain temporary side-walks access to construction site and where necessary, danger signals, Road closed sign, watchman and necessary appliances for properly safeguarding life and site of work for safety. The lamp must kept lit from sunset till at least one hour after sunrise. He shall protect all equipment and materials with barricades and danger signals so that no life may be endangered.

The Supplier shall so conduct his operation as to cause the least possible obstruction and inconvenience to the other users and suppliers in adjacent site. He shall have under construction not more than such amount of work as he can handle properly with due regard to the right of others.

45.0 Loss and Damage

Neither the department nor the Engineer-in-Charge or his representative shall be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof or to any of the materials or other things used in the performing the work, or for injury to any person, either a workman or any member of the public, or for damage to any property for any cause which might have been provoked by the supplier. The supplier shall properly guard against all these injuries or damages to persons or property resulting from his operations under this contract at any time before issuance of the certificate of completion and maintenance. He shall indemnity and save harmless the Department from all suits or actions of every description brought for, or on account of, any injury or damage received or sustained by any person or persons by reason of the construction of the work, negligence in guarding the same, the use of improper materials or of any act of omission or deviation from the contract.

46.0 Supervision of Work

The Engineer-in-Charge shall have the power at any time and from time to time by notice to the Supplier to delay or suspend the progress of the work or any part of the work during unsuitable weather for any other adequate reasons and on receipt of such notice, the supplier shall forthwith suspend further progress of the work until further notice from the Engineer-in-Charge.

The supplier shall recommence work immediately on receiving a notice to do so from the Engineer-in-Charge. The whole or any part of the time lost for such delay or suspension shall, if the Department in its absolute discretion thinks fit but not otherwise, be added to the time allowed for completion. The supplier shall have no claim to extra payment or compensation whatsoever on the grounds of above delay.

47.0 Supplementary Specification

Whenever reference is made in these documents to certain special specifications, the reference shall be construed to include all subsequent amendments, changes or additions that are published and in effect at the date of signing of this contract.
The department reserves the right to issue additional conditions, specification etc. if necessary which will be incorporated with tender documents already sold to tenderers for the purpose of this work.

48.0 **Land for Supplier’s Establishment**

For the purpose of constructing Supplier’s Storeyard, godowns, site office and ancillaries, he may utilize portion of the land belonging to the Employer at such location as would not interfere with the execution of works. For all these, the Supplier shall have to obtain the requisite permission of the Engineer-in-Charge. The Supplier shall for this purpose submit to the Engineer-in-Charge for his approval a plan of the proposed layouts for the site facilities. The Engineer-in-Charge reserve the right to alter and modify the Supplier’s proposals as he may deem fit. In case sufficient land is not available with the Employer, the Supplier will have to arrange for private land of his cost to meet his requirement.

49.0 **First-Aid Facilities**

The Supplier shall provide at his own cost for medical attention to be promptly available when necessary. He shall for this purpose provide a number of First-Aid stations at suitable location within easy reach of the workmen and other staff engaged in the Works. Each First-Aid station shall be properly equipped and will remain in charge of a suitably qualified person. The supplier shall also provide for transport of serious case to the nearest hospital. All these arrangements shall be to the approval of the Engineer-in-Charge.

The Supplier shall provide, to the satisfaction of Govt. or Local Authority concerned, adequate medical attendance for his employees and labours.

50.0 **Damage to Persons and Property**

The supplier shall, except; if an so far as the contract provides otherwise, indemnify the Employer against all losses and claims in respect of injuries or damage to any person or materials or physical damage to any property whatsoever which may arise out of or in consequence of the execution and maintenance of the works and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto except any compensation or damages for or with respect to:

a) The Permanent use or occupation of land by the works or any part thereof.

b) The right of the employer to execute the works or any part thereof on over, under, in or through any land.

c) Injuries or damage to persons or property, which are the unavoidable result of the execution or maintenance of the works in accordance with the contract.

d) Injuries or damage to persons or property resulting from any act or neglect of the supplier, his agents, servants or other suppliers, not being employed by the supplier or for or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or where the injury or damage was contributed to by the supplier, his servants or agents such part of the compensation as may be just and equitable having regard to the extent of the responsibility of the Employer, his servants or agents or other suppliers for the damage or injury.
51.0 **Accidents or Injury to Workmen:**
The Employer shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workman or other, person in the employment of the supplier, have and except any accident or injury resulting from any act or default of the employer, his agents, or servants. The supplier shall indemnify and keep indemnified the Employer against all such damages and compensation, save and except as aforesaid and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

52.0 **All Insurance at Supplier’s Cost:**
The insurances referred to in this Tender document shall be entirely at the cost and expense of the supplier.

52.A **Remedy on Supplier’s Failure to Insure:**
If the supplier shall fail to effect and keep in force the insurances referred to Clauses hereto, or any other insurance which he may be required to effect under the terms of the Contract, then and in any such case the Employer may effect and keep in force any such insurance and pay such premium or premium or premiums as may be necessary for that purpose and from time to time and deduct double the amount so paid by the Employer aforesaid from any money due or which may become due to the supplier, or recover the same as a debt due from the supplier.

53.0 **Idle Labour**
No claim for idle labour would be entertained under any circumstances.

54.0 **Inspection Facilities.**
The supplier shall provide necessary facilities for inspection of work for quality control by the Engineer and for the purpose of carrying his instructions as may be recorded in writing in site Order Book.

55.0 **Labour Act**
The supplier should obtain the license under the provision of the Contract Labour (Regulation and Abolition) Act 1970 and the Contract Labour (Regulation and Abolition) General rules, 1971 including the provisions of amendments made there under of the same.

56.0 **Site Clearance before final acceptance of the work.**
Before final acceptance, all items of work shall be completed, ready to operate and in a cleaned condition. All debris, unused material and temporary structures shall be removed from the site of work. Tools and construction machinery (except which is needed for repair and adjustment of the work consequent to operational tests) shall not remain on the site.

57.0 **Minimum Wage Act**
The supplier is required to follow the provisions of Minimum Wage Act.
58.0 **Precedence of Contract Documents**

If any stipulation indicated in any component of contract documents are at variance in any respect with those in the other, the decision of the Engineer in charge will stand final and binding.

59.0 **Action for Non-Compliance**

Failure to comply with above conditions and specifications will result in the department taking action at the risk and cost of the supplier. Execution of agreement binds the supplier for complying with requirements of the above conditions and specifications without any extra payment on any account.

60.0 **Typographical Error**

Typographical errors detected or pointed out are subject to corrections by E-I-C. Any party on account of such error can derive no benefit. Any Typographical error shall immediately be brought to the notice of the authority for rectification. EPIL / NKDA reserves the right to rectify mistake / omissions if detected, at any point of time even during execution of work.

61.0 **Completion of Work and Guarantee**

The work shall be deemed to be completed when all works itemized in the Schedule of work and the entire work as per drawing or otherwise undertaken have been completed in all respect including successful testing.

The supplier shall guarantee for successful operation of the project for 12 months from the date of successful completion of the project and shall within the operation and maintenance period remove/rectify/make good any such deficiency forthwith at his own cost. During the guarantee period after the trial run period the firms representative shall visit the site once in a month and advise in writing the engineer in charge about the condition, operation and maintenance procedure of the project. The Supplier shall within the operation & maintenance period train the NKDA officials regarding operation and maintenance work.

The successful tenderer shall also give the following guarantee in respect of the equipment supplied by him.

1. All equipments shall be free from any defects due to faulty design of the components, material, and/or workmanship and shall operate satisfactorily with highest performance efficiency.

2. Formal acceptance of the work or equipment covered under the contract will not be made by the engineer until all the work done by the supplier have satisfactorily passed all tests required and run for a reasonable period to his satisfaction.

If during testing of work including equipment prior of formal acceptance of the same or the material there of fails in respect of meeting the specification guarantee or otherwise, the supplier shall replace all the accessories etc. in such a condition which will meet the
guarantee performance and shall be up to the specification, in both material and workmanship. The supplier will provide back to back guarantee to NKDA for all kind of supplied equipments. The Final Bill for the work shall be processed by EIC on completion of work in all respect including submission of all test certificates by the supplier in quadruplicate.

62.0 Defect Liability Period

a) Defects Liability Period shall be twelve (12) calendar months after actual completion of the work. Any defects in material of workmanship observed in the entire work during execution or work or within defect liability period shall be notified in writing by the Employer to the supplier and shall be rectified by him at his own cost within time as specified by Employer.

b) To facilitate prompt attention to the defects the supplier shall employ a team of tradesmen like Elevator & associated electrical equipments etc. A supervisor will also be available along with the maintenance team to take instructions from Employer. The maintenance team will be available throughout the defects liability period. The composition of the tradesmen will vary according to the nature of recurring defects noticed in the buildings. In case of default the Employer may employ any other person to rectify or make good such defects. All expenses consequent thereon or incidental thereto shall be borne by the supplier and shall be recoverable from him by the Employer and shall deduct from RA bills or Security deposit as the case may be.

c) Should any defective works have been done or material supplied by any sub supplier employed, the supplier shall be liable to make good in the same manner as if such work or material has been done or supplied by the supplier. The supplier shall remain liable under the provisions of this clause notwithstanding the signing by engineer in charge of any certificate or passing any account.

63.0 Safety Requirements:

supplier shall use safety belts, whenever his workmen will have to work at a high altitude to avoid risk of any accident or fall Hard Top Hats to be used by the supplier's workmen at the places wherever required.

Necessary Fire Protection arrangements by installing portable fire extinguishers on suitable locations at work site and material storage area. The supplier shall also use Safety devices like Welder’s apron, hand gloves, goggles, helmets etc. and other accident preventive arrangement at work site as per prevailing safety code.

64.0 COMPLETION AND TAKING OVER

As soon as the project is finally completed, the supplier shall inform EPI and EPI shall in turn inform to NKDA. NKDA shall nominate a Board of Officers for checking/ verification of completed work as per the scope of work for final taking over the project.

65.0 I.E. Act.

The supplier is required to comply with the I.E. Act and Rules framed the under. He will have to produce to the EIC evidence of possession of Electrical Contractor’s license with current validity and also copy of Electrical Supervisor’s Certificate with qualification, registration no. etc. in respect of employees involved in electrical works.
66.0 Foreclosing of Work

If at any time after the acceptance of the tender the Employer shall for any reason whatsoever not require the whole or any part of the works, to be carried out, the Employer shall give notice in writing of the fact to the supplier, who shall have no claim to any payment of compensation or otherwise, whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the foreclosing of whole or part of the work.

67.0 Measurements

i) The supplier along with representative of E-I-C shall measure the work done according to PWD mode of practice and enter into their measurement book, sign and submit it in triplicate to the engineer in charge for verification and certification. The measurement so taken shall be checked by the concerned Assistant Engineer in charge of the work.

ii) If any alterations or additions (other than those authorized) have been covered up by the supplier without his having given notice of his intention to do so, the engineer-in-charge shall be entitled to appraise the value thereof and in the event of any dispute the decision of the Employer thereon shall be final and binding.

iii) Payments for Works: On account payment will be made till completion of the work. Rate quoted shall be inclusive of all taxes, octroi, cess, toll etc. or any other new taxes or levies etc. and shall be payable by the supplier. The employer will not entertain any claim whatsoever in this respect. Income tax will be deducted from the RA Bills/Final Bill.
GENERAL TECHNICAL SPECIFICATION OF ELEVATOR

GENERAL
This specification covers the minimum requirements for the design, engineering, Manufacture, inspection, testing, supply and installation of three nos. of Passenger and one no. of Freight Elevator. This Elevator shall be provided for transportation of goods and passengers from grade to the highest platform with number of intermediate landings as described in the Architectural drawings. All elevations, number of landings shall be reviewed post order stage for compliance with operational requirements of the plant.

1. SCOPE OF SUPPLY AND SERVICES

2. SCOPE OF SUPPLY:
The Contractor shall supply one (4) no. Passengers & Freight Elevator of different weight as per BOQ complete with, but not be limited to, the following:
Complete Car body with door, Fan on top, Operating device(s), Car Guide etc. with all other accessories.
Counterweight and its guide rails with suitable fixtures.
Drive mechanism with rope & sheaves - located in machine room.
Accessories such as limit switches, landing stop switches, door contacts, alarm bell, car buffers, counterweight buffer and all other necessary accessories for ensuring safe operation of lift.
Operating device at landing with necessary indicating devices.
Landing door with necessary contacts.
Landing door with emergency unlocking facility.
Over speed safety mechanism
Pit ladder.
Lighting in the car.
Lighting in hoist way and pit
CP Block of adequate capacity in machine room for maintenance purpose.
All Electrical equipments as per attached data sheets and Electrical specification.
Supply of Lubricants.
Commissioning spares.
Special tools and tackles for maintenance.

3. Scope of services:
The scope of services shall include, but not be limited to, the following. Design, Engineering, Manufacture, Testing, Painting and Supply of the complete equipment at
Technical Specification

site. Erection of Passenger & Freight Elevator equipment complete including cutting holes, welding supports brackets and counterweight rail brackets. Properly framed and enclosed hoist way including its extension (machine room) above the roof. All civil & foundation works.

Passenger & Freight Elevator pit of proper depth below the lowest landing.

Continuous sill bearing area for each hoist way entrance of proper construction so as to achieve anchorage and support for each sill, if & wherever required.

Monorail beam in the machine room and rolled steel sections with bearing plates for support of the machine with metal grating, buffer support channels in the pit.

All safety norms as per statutory regulations shall be complied by Elevator Package vendor.

Elevator over weight safety shall be considered by elevator package vendor.

In case of power failure the lift should travel to the nearest floor and stop with gate wide open till power resumed.

Contractor shall arrange inspection and initial certification of Elevator installation at site by statutory authorities. All inspection/certification expenses shall be borne by contractor. However, statutory fees shall be paid by the Purchaser.

Contractor / Vendor's free maintenance shall be available on the Passenger & Freight Elevator for a period of one year after the Passenger & Freight Elevator equipment is commissioned and handed over to the purchaser. During free maintenance period, Contractor / Vendor shall carry out load testing and safety checks once in six month to meet the statutory requirement.

After free maintenance period, the Elevator Vendor's AMC services shall also be available for regular maintenance of Elevator on chargeable basis, for which Elevator Vendor shall quote AMC charges separately on yearly basis to Client. Elevator Vendor shall be obliged to provide AMC (renewable every year) for lifetime of equipment.

Maintenance (Free as well as AMC) shall be for routine inspection of Elevator, checking of clearances, necessary adjustment, lubrication etc. The replacement of damaged parts shall be by Elevator Vendor within AMC.

Attending breakdowns of Elevator within short notices shall also be part of maintenance work.

4. CODES AND STANDARDS:

Following codes and standards (latest edition) shall be followed for design, fabrication, testing etc.


The installation and testing shall be carried out as required by the local codes and as per normal practice prevalent in the Lift Industry, Lift Act & Rules. All electrical equipment / works in connection with electric Passenger & Freight Elevator shall be in accordance with the latest provisions of Indian Electricity Act 1910 and Indian Electricity Rules.

5. TECHNICAL REQUIREMENTS:

The Passenger & Freight Elevator shall generally be endowed with following minimum features. Additional features required as per Elevator Vendor’s standard design shall also be provided.
6. DRIVE UNIT:
The Drive Unit shall be of the single wrap traction type, and shall include a motor, electro-mechanical brake, reduction gear, sheave, shaft, all compactly mounted on a single base plate. The worm shaft and sheave shaft shall be provided with suitable bearings. The bearings shall be selected for minimum 40,000 hrs life. The driving sheave shall be grooved to ensure sufficient traction and minimize rope wear. Adequate means of lubrication shall be provided for all bearings and gearbox.

7. BASE PLATE:
A properly machined drive unit base plate of steel construction shall be supplied.

8. FOUNDATION:
The machine shall be placed directly above the hoist way in machine room on suitable steel structure and RSJ sections with suitable anti vibration pads in between machine base plate and its support to reduce vibration.

9. BRAKE:
The direct current brake shall be spring applied and electrically released and designed to provide smooth stops under variable loads.

10. CONTROLLER:
An automatic controller shall be provided which shall control all the operations starting/ stopping, application of brake in case of power failure etc. An automatic rescue device shall be provided, that will move lift to the nearest upward and downward landing (subject to load) in the event of power failure.

11. ROPES:
The Passenger & Freight Elevator shall be provided with traction steel hoist ropes (galvanized).

12. CAR FRAME:
The car frame consisting of car enclosure and the floor shall be fabricated out of rolled sheet sections. Suitable guides shall be provided for smooth up/down movement of the car. The car safety device shall be located underneath the car frame. Floor plate shall be chequered type. The car frame shall be robust enough to withstand occasional impact loading by a forklift or platform truck.

13. OPERATING DEVICES:
These shall be furnished as flush type finished metal panel containing buttons marked to correspond with landings served. An emergency stop switch and an alarm button connected to a bell shall serve as an emergency signal. It shall be possible to operate the Passenger & Freight Elevator both from inside the car and from various landing floors.

14. DOOR OPEN & EMERGENCY BELL:
A bell, furnished and installed in the car, shall ring while a landing button is pressed
and the car gate or hoist way door is open. Emergency call bell shall be provided at
ground floor. Contractor shall also make provision to extend the alarm to nearby
control room.

15. CAR GATE CONTACT:

An electric contact shall be provided for the car door or gate. The contact shall be
designed to prevent movement of the car away from a landing unless the door or
gate is in properly closed position. For starting the lift, the door shall be closed
manually and a button shall be pressed.

16. CAR OPERATION:
The car shall not start unless the car gate is in the closed position and all hoistway
doors are locked in the closed position. Momentary pressure of car or hallway button
shall send the car to the landing selected where
the car will automatically stop. Car operation shall be of “simplex full collective up and
down” type. Momentary pressure of a landing button shall bring the car to the desired
landing. Car position shall be indicated at all the floors and also inside the car.

17. GUIDES:

Contractor shall furnish steel Tee guides with necessary brackets for car and

18. HOIST WAY DOOR AND CAR DOOR:
The hoist way door as well as the car door shall be of sliding shutter collapsible type
(vertical bi- parting) of steel construction and shall be suitable for manual operation.
Each hoist way door shall be provided with an interlock, which shall prevent
movement of car away from the landing unless all the doors are closed and locked.
The interlocks shall also prevent opening of the doors except at the landing where the
car is stopping or has stopped.

19. HOIST WAY LANDING:
Suitable Push button shall be provided at each landing. It shall be possible to load the
Passenger & Freight Elevator at any floor and send unmanned to any floor.

20. COUNTER WEIGHT:
For economical operation of the Passenger & Freight Elevator suitable counter
weight arrangement, moving in guided structural steel frame, shall be provided.

21. OVER-SPEED SAFETY:
An over speed safety device to stop the car whenever the car achieves runaway speed
limit resulting from high speed descending of the car, shall be provided. The device shall
be operated by a centrifugal governor, which continuously and automatically senses the
car speed. The actuation of the safety device shall cut off the power supply to the motor
and apply the brake immediately. An alarm shall be activated.
Afterwards it shall be possible to bring the car safely to the nearest landing to rescue men and materials.

22. TERMINAL AND FINAL LIMITS:

Terminal limit switches shall be provided to slow down and stop the car automatically at the terminal landing. To arrest movement of car beyond the terminal landings, final limit switches shall be provided which on operation shall cut off the power and apply the brake immediately. Inching device shall be provided for accurate positioning of the car with the landings.

23. TERMINAL BUFFERS:

Spring buffers shall be installed as a means of stopping the car and counterweight at the extreme limits of travel. Buffers in the pit shall be mounted on steel channels provided by purchaser, placed between both the car and counterweight guide rails.

24. INDICATIONS:

Following signals shall be provided:
1. Hall buttons with Up/Down arrows at all floors
2. Car position indication with arrow in the car.
3. Car position indication with arrow in hall on all floors.

25. FOLLOWING DETAILS SHALL BE DISPLAYED INSIDE CAR:

1. Name plate indicating capacity of lift.
2. Operating instructions in English and Hindi language.

Emergency rescue procedure shall be displayed in machine room.

26. ELECTRICAL EQUIPMENT:

One point power supply of 415V, 3 Phase, 4 Wire + 10% and 50Hz + 3% shall be provided to the package unit Power Distribution Board (PDB) / Panel in machine room, further distribution shall be by vendor. Electrical works for the Elevator shall be in Elevator Vendor’s scope and shall be as per enclosed Electrical specification. Electrical equipments as listed below but not limited to following shall be in package vendor's scope.

Motors.
Power distribution board (Package unit panel)
VVVF drive.(As required for Vendor design)
Power and control cables along with accessories i.e. cable gland (brass/Nickel cadmium, double compression) and lugs including hardware.
Cable specification shall be as follows,
MV Power cables shall be with stranded Aluminium conductor, XLPE insulation, PVC inner sheath, armoured and overall FRLS PVC outer sheath. All Control cables shall be copper conductor, XLPE insulation, PVC inner sheath, armoured and overall FRLS PVC outer sheath.
Cable type shall be selected to meet the statutory requirements.

Lighting panel, Lighting fixtures, Emergency light fixtures(With 2 hour battery backup) and receptacles for maintenance along with cables, Cable gland, Lugs and junction boxes including hardware etc. for Lighting inside Car(Elevator), hoist way, Pit and
machine room etc.
Earthing material including hardware and accessories for all equipments under
Elevator package. Package Earthing shall be connected to nearest main earth grid.
Paging handset, speaker, Power and Signal cables upto Junction box (at ground
floor near staircase) with all accessories including hardware.
Push buttons switches, Selector switches and Alarms bell etc. required for package.
Junction boxes as required.
Miscellaneous items for completing Electrical works in all respect.

Provision shall be made in Elevator control panel to hook-up Signal for Emergency
operation from Fire alarm System.

Make of major Equipments shall be as below.
Motor: Bharat Bijlee / Crompton Greaves / Siemens / Marathon Electric / Kirloskar or
own.
VVVF drive: Rockwell / L & T / Siemens / ABB / Hitachi / Toshiba / Fuji. Switchgear
components: L & T / Siemens / Schneider.
Power and control cables: Nicco / Polycab / RPG / Universal cables. Lighting
Fixtures: Bajaj / Crompton / Philips.
Cable glands and Junction boxes: Baliga / FCG flameproof / FCG Power / Flexpro
Electrical.

Access to elevator door should not be less than the width of the car.

Also, forklift access to the grade level landing shall be ensured while making layout. If
there is not enough space for the forklift access, suitable double door arrangement
on the other side of the lift shall be provided with proper approach the ground floor.

27. INSPECTION AND TESTING:
All equipment shall be subjected to stage wise expediting, inspection and testing at
vendor’s/sub-vendor’s works by purchaser/ authorized inspection agency. Contractor
shall submit Quality Assurance (QA) procedure before commencement of fabrication
for review. Approved QA procedure shall from the basis for equipment inspection.
Contractor shall carry out the tests as required by the local code and as per normal
practice of the lift industry. Over-load testing will be done as per IS Code for Freight
Elevator.

28. APPROVAL OF ELEVATOR INSTALLATION:
Contractor / Elevator Vendor shall comply with the requirement of local laws
and statutory authorities. Lift inspection etc. and getting the requisite
certification for operation of lift at site from Statutorily Clearance / safety
certificate from the Govt. body etc. are included in Contractor’s scope of
services. All inspection / certification expenses shall be borne by Contractor.

29. GUARANTEE:
The Contractor shall stand guarantee specifically for the following performance.
- Rated capacity of the Elevator.
- Speed of the Elevator.
- Accurate positioning of the Elevator at all landings.
The above shall be proved at site during Performance Guarantee Run.
30. LIST OF APPROVED VENDOR FOR ELEVATOR:

1. M/s OTIS INDIA
2. M/s SCHINDLER.
3. M/s KONE ELEVATORS
4. M/s THYSSEN KRUPP
5. M/s BHARAT ELEVATOR CO. LTD
6. M/s ENGINEERS VERTICAL SERVICES
7. M/s ELECTROMET
8. M/s UNITED ELEVATOR
9. M/s ESCON
10. M/s JOHNSON
11. M/s OMEGA
12. M/s L T ELVATOR

Note: The vendor must have a city office & service centre at Kolkata.