



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**FACE SHEET TO ACCOMPANY THE TENDER DOCUMENTS**

- A. 1. Name and full address of the Contractor  
to whom the Tender Documents are issued. :
2. Whether registered with Engineering (Civil)  
Department, if so, class of registration. :
3. If not registered, reference to the letter of the Chief  
Engineer authorising issue of the tender Documents. :
4. Date of issue of Tender Documents. :

---

**Asst. Engineer (Accts)**

- B. 1. Name of work: **Supply, Installation, Testing and Commissioning of Two  
Numbers of Elevators For Cruise Terminal Building at  
Mormugao Harbour.**
2. Cost of each set of Tender Documents : Rs.2,500/-
3. Date of Sale of Tender Documents : From : 05.07.2016  
To 26.07.2016 upto  
15.00hrs.
4. Date of receipt of tender and time : 27.07.2016  
Upto 15.00hrs
5. Amount of E.M.D. : Rs.45,000/-
6. Date of opening of tender and time : On 27.07.2016  
at 15.30 hours.
- 7 a) Whether E..M.D. received : Yes/No.  
b) if so, in which shape : Demand Draft
8. Form of contract : Item Rate
9. Whether tender received in duplicate : Yes/No
10. Whether rates have been quoted in : Yes/No.  
the tenders both in words and figures.
11. Total No. of Tenders received for the work :

---

Sr. AO (CWC)

---

EXECUTIVE ENGINEER (P&C)



**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

<b><u>CONTENTS</u></b>	<b><u>PAGE NOS.</u></b>
<b>FIRST COVER</b>	
Short Notice for Inviting Tender (NIT)	4
i) Undertaking by the Tenderer	5
ii) Detail Tender Notice	6 - 13
iii) Form of Tender	14- 17
iv) Appendix to the Tender Notice	18 - 21
v) Performa – 1, 2, 3 & 4.	22 - 25
vi) Instructions for Preparation and Submission Tender	26 - 30
vii) Form of Agreement & Form of Bank Guarantee for Security Deposit	31 - 35
viii) General Conditions of Contract	Vol – I (Printed booklet)
ix) Scope of Work	36
x) Additional Special Instructions	37 - 39
xi) Additional Specifications	40 - 81
xii) Check List for submission of tender	82 - 83
xiii) Vendor Registration Form	84 - 85
xiv) Drawing	



**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two  
Numbers of Elevators For Cruise Terminal Building at Mormugao  
Harbour.**

**F I R S T C O V E R**

**(TO BE SUBMITTED IN SEPARATE SEALED ENVELOPE / COVER)**

Architects

**WTE** Wadia Techno Engineering Services Limited.  
Mumbai.



**MORMUGAO PORT TRUST**  
**SERVING THE NATION SINCE 1885**

**ENGINEERING (CIVIL) DEPARTMENT**

[www.mptgoa.com](http://www.mptgoa.com)

**NOTICE INVITING TENDER**

**TENDER NOTICE NO.: CE/N-55/2016**

**TENDER No.: CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

Item Rate tenders in the prescribed form in sealed covers super scribing the Tender No. and due date and time are invited by the Chief Engineer for the above work as per the details given in the table below:

Cost of tender document	Estimated cost	Tender Sale From/To	Submission on	Opening on
EMD	Completion Time	Pre-Bid Meeting		
Rs.2,500/- (Rupees Two thousand five hundred only)	Rs.32,00,000/-	05.07.2016 to 26.07.2016 Upto 15.00 hrs.	27.07.2016 Upto 15.00 hrs.	27.07.2016 at 15.30 hrs. Technical Bid (Cover No.I)
Rs.45,000/- (Rupees Forty five thousand only)	Six (6) Months	18.07.2016 at 15.30 hrs.		

Detailed tender notice along with complete tender documents can be downloaded from our website [www.mptgoa.com](http://www.mptgoa.com) on or before the last date of sale of tender document. Tenders are also available for sale at the Civil Engineering Department of Mormugao Port Trust.

For further details and general enquiries, prospective bidders may contact the Executive Engineer (Planning), telephone No. 0832 2594611, mobile 09764006075, during working hours before the last date and time of sale of tender document.

**[sd/-]**  
**Chief Engineer**



**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**i) - UNDERTAKING BY THE TENDERER**

To,  
The Trustees of the PORT OF MORMUGAO,

I/We, M/s \_\_\_\_\_ have gone through the tender document carefully and hereby confirm as under:

The complete tender set i.e. First Cover and Second Cover in sealed cover separately and together in a separate cover is returned WITHOUT any defacement, addition, alternation or interpolation. All details have been indicated separately in our tender covering letter with all the relevant Annexures and Proformae duly filled in.

I/We have submitted our tender alongwith Earnest Money Deposit separately enclosed in the Envelop. I/We have not indicated anywhere in the first cover the amount of our Price Bid.

I/We have not made any counter stipulation and conditions and I/We agree that in the event of any such counter conditions my/our tender will be summarily rejected and such offer will not be evaluated and considered at all by you. Percentage Rate quoted by me/us in the schedule of quantities along with other submission will remain valid for the period of 180 days from the submission of the tender.

I/We hereby declare that, all information furnished by me/us with this tender is true to best of my/our knowledge, belief and in case, if it is found that, the information furnished is not true or partially true or incorrect, I/We agree that, my/our tender shall be summarily rejected without prejudice to the right of the Board of Trustees of PORT OF THE MORMUGAO to take further action into the matter.

Witness's :  
Signature : \_\_\_\_\_  
Name : \_\_\_\_\_  
Designation : \_\_\_\_\_  
Address : \_\_\_\_\_  
Tel. No. : \_\_\_\_\_  
Date : \_\_\_\_\_

Tenderer's :  
Signature : \_\_\_\_\_  
Name : \_\_\_\_\_  
Designation : \_\_\_\_\_  
Address : \_\_\_\_\_  
Tel. No. : \_\_\_\_\_  
Date : \_\_\_\_\_



**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**ii) DETAIL NOTICE INVITING TENDER**

**TENDER NOTICE NO.: CE/N-55/2016**

**TENDER No. CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

1. SALE OF TENDER COMMENCES : **On all working days between 05.07.2016 to 26.07.2016 from 9.30 hrs. to 12.00 hrs. and 14.00 hrs. to 15.00 hrs.**
2. LAST DATE FOR SALE : **Upto 15.00 hrs. on 26.07.2016**
3. LAST DATE FOR SUBMISSION OF TENDER (DUE DATE) : **Upto 15:00 hrs. on 27.07.2016**
4. OPENING DATE FOR FIRST COVER (Technical Bid) : **At 15:30 hrs. on 27.07.2016**
5. Pre-Bid Meeting : **At 15:30 hrs. on 18.07.2016**

Note: Any clarification on the bid document bidders may contact the Executive Engineer (Planning), telephone No. 0832 2594611, mobile 09764006075, during working hours before the pre-bid meeting. Port's website [www. mptgoa.com](http://www.mptgoa.com).

MORMUGAO PORT TRUST  
Civil Engineering Department,  
Administrative Office Building  
Headland – Sada. 403804,  
Tel: 0832 252 1160

CHIEF ENGINEER  
MORMUGAO PORT TRUST



**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**ii – DETAIL TENDER NOTICE**

**1. INVITATION**

1.1 Mormugao Port Trust (MPT) invites \*sealed Item rate tenders in original under two cover bidding procedure and to the MPT's designs, drawings, relevant I.S. codes and specifications contained and referred directly/indirectly in this tender document and on Item basis for the work of " **Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**"

\* "Sealed" shall means sealed with wax or closed with gum, to the satisfaction of authority opening the tender.

1.2. **Minimum Eligibility Criteria for tendering will be as follows:**

**(A) Financial Criteria :**

i) The average annual financial turnover during the last three years ending 31<sup>st</sup> March 2015 of the tenderer should be at least **Rs.9.60 lakh.**

Note: **The above information shall be submitted along with documentary proof i.e. Income Tax Returns acknowledgement, Audited Statement of Accounts duly certified by the Statutory Auditors of the firm.**

**(B) Technical Criteria**

(ii) The firm shall have experience of successfully completing the "similar works" during last seven years ending March, 2015, in either of the following:

(a) **Three similar works each costing not less than Rs.12.80lakhs.**

OR

(b) **Two similar works each costing not less than Rs.16.00lakhs**

OR

(c) **One similar work costing not less than Rs.25.60 lakhs**

Note : (i) "**Similar works**" means Supply, Installation and Commissioning of elevators of any capacity and any height/floors. The contractor should clearly specify name of client and copy of orders & value of works handled.

1.2.1 The Tenderer should have executed similar works in the Railways/ Public Sector Govt. Undertakings/ State Governments / Private Sector/ Port Authorities.

**1.2.3 Mode of Selection of Contractor:**

Tenderer shall have to satisfy minimum Financial and Technical eligibility Criteria mentioned in the tender at 1.2 above. Only those tenderers who satisfy minimum Financial and Technical eligibility Criteria will be pre-qualified for opening of Cover No.2 (Price Bid). Lowest Price offer is the sole criteria for award of work among qualified tenderers. During scrutiny of Price offer, lowest price offer will be considered.

1.2.4 The tenderer shall furnish relevant information in respect of their firm, etc. to ascertain their financial and technical capabilities and work experience in Proformae 1 to 4.

1.2.5 Offers received from the tenderer with counter stipulation and conditions will be summarily rejected and such offers will not be evaluated and considered at all.

1.2.6 The Port reserves the right to get any information from the tenderer before opening of the Price offer.

**1.3 Scope of the Work :**

1.3.1 The proposed work comprises of Schedule of Works covered in **“Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour”**.

1.4 The tenderer will have to work in close co-ordination with the other contractors employed, if any.

1.5 The quantities provided in the tender are approximate and may vary. The tenderers are strongly advised to inspect the site of work and acquaint themselves with the site conditions and quantum of works involved etc. so that they are fully aware of the nature and scope of the works to be carried out before tendering. No claim will be entertained due to variations in the quantities.

1.6 **The tenderers will be prequalified based on the information furnished by them. The Second Cover of the only those qualified tenderers will be opened on the date which will be intimated to them.**

**2. PROCEDURE FOR OBTAINING TENDER DOCUMENTS**

2.1 The tender documents can be obtained in person from the Office of the Chief Engineer, Mormugao Port Trust, Administrative Office Building, Headland Sada, Mormugao, 403804. Telephone No.0832 2594628 during working hours from 9.30 hours to 12.00 hours & 14.00 hours to 15.00 hours on any working day upto the last day stipulated for the sale of tender documents, on submission of an application in writing on the firm's letterhead and on payment of the



prescribed charges set out below:

a ) For the complete set including drawings : **Rs.2,500/- per Set**

The above charges are NON-REFUNDABLE.

- 2.2** The interested firms may alternatively download the tender documents from the Mormugao Port Trust web site [www.mptgoa.com](http://www.mptgoa.com). The payment of Rs.2,500/- ( Rupees Two thousand five hundred only) will have to be made in that case, before the time of submission of the offers and evidence of payment made shall be enclosed or disclosed during opening of Technical cover. **Volume I containing the General Conditions of Contract can also be downloaded from the Port's website. Volume – I shall also form the part of Cover No. I.**
- 2.3 The above prescribed charges should be paid in cash or by Demand Draft drawn in favour of "**FA & CAO**", **M P T** on any branch of a Scheduled Bank within the jurisdiction of State of Goa.
- 2.4 Tender sets will not be sent by Post OR Courier Service.
- 2.5 The tender documents are NOT TRANSFERABLE.

**3. EARNEST MONEY TO BE DEPOSITED FOR THIS TENDER:**

The Earnest Money to be deposited in respect of this tender is Rs.45,000/- (Rupees Forty five thousand only) shall be in the form of Demand draft of any Nationalised or Scheduled Bank within the jurisdiction of State of Goa payable at Vasco.

**4. NUMBER OF COPIES OF TENDER TO BE SUBMITTED:**

The tenderer shall submit only one (original) copy in each of First cover and Second cover separately.

**5. RELEASE OF SITE:**

- 5.1 The site will be released after the work is awarded. Contractor shall commence the work immediately and same shall have to be complete in all respect within a period of **Six (6) months**. It shall be the responsibility of the contractor not to cause any hindrance to other contractors working at site. All the contractors shall work in close coordination and shall not obstruct the daily routine works in the vicinity. The dust, dirt and debris resulted at the site shall be controlled properly and removed regularly. The complaints received in this respect will be viewed seriously and the cost of resultant damages, if any will be recovered without any reference. The Tenderer should take all these aspect into account while quoting for the tender and to complete the work within stipulated completion period.

6. **TIME FOR COMPLETION OF THE WORK:**

- 6.1 The total completion period for the work is **Six (6) months** and period completed as 7days from the date of receipt of acceptance letter or from the date of release of site or part thereof, whichever is later.
- 6.2 Contractor shall commence the work immediately for building and same shall have to be complete in all respect within a period of **Six (6) months including monsoon.**
- 6.3 Time is essence of the contract. If the tenderer stipulates a completion period longer than the one stipulated above, the same is liable for rejection.
- 6.4 Tenderer's specific attention is invited to the conditions of the proposed work site. The site will be released after the work is awarded. The site for building being close to road and parking of vehicles. Accordingly, contractors are required to plan their construction activities accordingly without causing any hindrances to the road traffic and other activities of MPT contractor operating / working in the area.
- 6.5 Proposed work site of building is not within Port operational area, hence contractor is not required to make Harbour Entry Permit (HEP) for all labour and materials. However, contractor shall safe guard its building materials at their own cost. Port is not responsible to any damage or shortfall to building materials.

7. **LIQUIDATED DAMAGES AND PENALTY:**

- 7.1 Liquidated damages for delay in completion of the works are 1/2 percent (0.5 %) of the Contract Price of work for delay of each week or part of a week subject to a maximum ceiling of 5 percent of the Contract Price. However, if the work is delayed by more than 25% of the contracted completion period, the contract is liable to be terminated and the balance works are liable to be got completed by Mormugao Port Trust through some other agency at the risk and cost of the defaulting Contractor.

8. **PROGRAMME OF WORKS:**

Every tenderer must prepare and submit with his tender detailed CPM network based programme or Bar Chart and list of control milestones for the execution of the work, keeping in mind the site conditions and the possible hindrances due to monsoon, etc. duly signed and dated in accordance with Clause 15 of General Conditions of Contract & the Instructions for Preparation and Submission of Tenders. The Bar Chart and list of control milestones will form part of the tender.

9. **MAINTENANCE PERIOD:**

The free maintenance period is 1 (one) year from date of completion of the entire work as certified by the Chief Engineer.

10. **FACILITIES TO THE CONTRACTOR:**

Tenderers are advised to price their bids after taking into account, among other provisions of the tender documents:

- a) MPT will not supply any material for the work.
- b) MPT will supply water for construction purpose subject to availability as per the Special Condition of Vol. I Clause No.9.19. In the event water is not supplied by MPT, the contractor will have to make his own arrangements for water which shall be from an approved source (Refer Appendix – II).
- c) It is possible to give electric supply by MPT subject to availability during building construction as per Special Conditions of contract Vol.I, Clause No. 9.20. The contractor will have to make his own arrangements for drawing the electricity which shall be approved by MPT. Contractor has to maintain generator set of the adequate capacity for the electrical supply in case of emergency at his own cost (Refer Appendix – II).

11. **FACILITIES NEED TO BE PROVIDED BY THE CONTRACTOR:**

Tenderer's are advised to price their bids after taking into account the facilities need to be provided by them free of cost to the Employer, which shall include following facilities.

- a) The contractor shall have to submit electrical contractors licence and electrical supervisors licence before execution of work.
- b) Contractor shall have to submit necessary test reports of testing of material at his cost at site or has to conduct all the required tests from approved laboratory as directed by Engineer. No payment for testing of cubes at site/reputed laboratory will be made to the contractor.
- c) Stamp Duty on the Contract Agreement will be borne by the contractor.

12. **EXPENSES INCURRED BY THE TENDERER:**

Mormugao Port Trust will not reimburse any costs or expenses incurred by the tenderer in connection with the preparation or delivery of this tender, including costs and expenses related to visit the site.

13. **INSPECTION OF SITE:**

Tenderers are strongly advised to inspect the site of work and acquaint themselves with the site conditions and quantum of work involved, etc. before tendering. Access to the site for inspection will be arranged by Executive Engineer, Engineering Civil Department, Mormugao Port Trust, Administrative Office Building ,Headland Sada, Mormugao Vasco, Goa - 403804, Telephone No. 0832 2594611. Mobile: 09764006075.

14. **RIGHT OF ACCEPTANCE / REJECTION OF ANY TENDER :**

The Board of Trustees of the Port of Mormugao reserves the right to reject any or all tenders or to accept any tender in part or whole and does not bind itself to accept the lowest or any tender.

15. **DEADLINE FOR RECEIPT AND OPENING OF TENDER:**

- 15.1. The tenders duly completed in accordance with the "Instructions for preparation and submission of tenders" contained in this tender document should be placed in the tender box (marked "Tender No. **CE/28R1/2016**") kept outside the cabin of the Asst. Engineer (Accts), Civil Engineering Department, Mormugao Port Trust, upto due date as indicated in face sheet.

The First Cover – Technical Cover will be opened at 15.30 hrs. on the due date in the presence of such of the tenderers who may wish to remain present.

- 15.2 The tenders whether sent by Courier/ Post or by hand delivery must reach this office on or before the due date and time. OFFERS RECEIVED LATE WILL NOT BE CONSIDERED EVEN THOUGH POSTED BEFORE THE DUE DATE AND TIME.
- 15.3 Offers sent by telex/telegram/fax will not be considered.
- 15.4 Unsigned tenders will not be considered.

16. **PROCEDURE FOR SUBMISSION OF TENDERS:**

The tenders are required to be submitted in accordance with procedure set out at Clause No.4 of Instructions for Preparation and Submission of tenders.

17. Further to provision to this contract the other recoveries shall also include deduction of Income Tax at source, works contract tax, cess, etc. as may be applicable as per the prevailing rules and regulations.
18. Tax at source will be applicable on the value of works contract in terms of Section 28 of Goa Value Added tax (Act) 2005. The present rate of such tax is **5%** on the value of the work contract will be deducted from the bill(s) payable to the contractor. The contractor should indicate the registration number with all the applicable statutory authorities regarding Service Tax, VAT, Sale tax (LST & CST).
19. The tenderers are requested to obtain Certificate of Registration under Rule No.24 of the Building and other Construction Workers Central Rules, 1998 from the office of the Asst. Labour Commissioner, Mormugao.
20. The contractor should comply the provisions of the Building and Construction Workers (Regulations of Employment and Conditions of Services) Act, 1996. The Act envisages that every Contractor shall obtain registration certificate from the Registering Officer, if he engages 10 or more workers for the work.
21. Tenderers are requested to submit Audited Balance sheets along with their tender and quote their Permanent Account Number (PAN) / Employment Provident Fund No (EPF) and ESI No. In the absence of this information, The Board of Trustees of the Port of Mormugao will be at the liberty not to consider their tender, which will be deemed to be void. The tenderers who have applied for fresh EPF/ESI registration should submit proof of the same.

22. **VALIDITY OF THE TENDER:**

The tenders shall remain valid for a period of 180 days from the date of submission of Bid offer.

CHIEF ENGINEER  
MORMUGAO PORT TRUST  
MORMUGAO – GOA

Mormugao, Headland Sada.  
Dated:



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**iii - FORM OF TENDER**

**The Chief Engineer,  
Mormugao Port Trust,  
MORMUGAO HEADLAND SADA (GOA).**

I/We \_\_\_\_\_ do hereby offer to execute the work comprised in the annexed Tender Notice “**Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**” in strict accordance with the Instructions to Tenderers, General Conditions of Contract (GCC), Specifications, etc. at the rate entered in the attached Schedule of Quantities and Rates.

2. I/We undertake to complete the work included in the Schedule of Quantities and Rates in Part – I within **Six months** from the date receipt of work order or date of release of site whichever is later. I/We also agree that this tender will remain open for acceptance until disposed off by the Trustees of Port Mormugao. I/We have independently considered the question of the amount of loss or damage likely to result to the Trustees from the delay on my/our part in the performance of the contract and I/We agree that the Liquidated damages at the rate of 0.5% of the contract price per week or part thereof delay in work subject to a maximum ceiling at 5% of the contract price represents a fair estimate of the loss likely to result from the delay.

3. I/We enclose herewith a sum of **Rs.45,000/- (Rupees Forty five thousand only) towards earnest money deposit** in the form of Demand draft as proof of my/our willingness to enter into the contract if my/our tender is accepted.

4. In the event of my/our tender being accepted, I/We agree to enter into a contract in the prescribed form with such alterations or additions thereto which may be necessary to give effect to the acceptance of this tender and such contract shall contain and give full effect to the specifications, Schedule of Quantities and Rates attached to this tender.

5. I/We also agree, if awarded the contract that the earnest money lodged with this tender will be retained by the Trustees towards part of the Security Deposit and to make further deposit by cheque/demand draft of a Bank Guarantee, within seven days or such extension of the period permitted by the Chief Engineer, in writing, after receipt of information that my/our tender has been accepted by the Port Trust.

6. I/We further agree, if awarded the contract, to lodge the Retention Money equivalent to 5% of the contract price of my/our tender by way of deductions from my/our bills at the rate of 10% of the gross value of work certified in each bill till the amount of 5% of the contract price is accumulated.

7. Should this tender be accepted, I/we hereby agree to abide by and fulfil all the terms and conditions of the said tender annexed hereto, so far as applicable or in default thereof to forfeit and pay the Board of Trustees and/or its assignees, the sum of money mentioned in the said conditions and to execute and agreement in the prescribed form with the Mormugao Port Trust within 30 days of the award of the contract, or in default thereof, to forfeit the Earnest Money deposited by me/us. Unless and until, a formal agreement is prepared and executed, this tender together with your written acceptance thereof shall constitute a binding contract between us.

8. I/we undertake, if our tender is accepted, to commence the work within 7 days of receipt of the Chief Engineer's orders to commence and to complete and deliver the whole of the work comprised in the contract within the time allowed for the work.

9. A sum of **Rs.45,000/- (Rupees Forty five thousand only)** has been deposited by me/us with the Financial Adviser and Chief Accounts Officer of Mormugao Port Trust as Earnest Money, the full value of which is to be absolutely forfeited to the Board of Trustees without prejudice to any other rights or remedies of the said Board, should I/we fail to commence the work specified in the above mentioned memorandum, otherwise the said sum of **Rs.45,000/- (Rupees Forty five thousand only)** shall be detained by the Port Trust as a part of the Security Deposit as aforesaid.

10. I/we agree to abide by this tender to be valid for the period of six months from the date fixed for receiving/opening the same and it shall remain binding upon me/us and may be accepted any time before the expiration of that period.

11. I/we further agree that if I/we withdraw the tender before the expiration of this period of six months, or fail to execute an agreement in the form aforesaid within 30 days from the date of award of contract, the Earnest Money deposited shall be forfeited to the Board.

12. I/we understand that the Board is not bound to accept the lowest or any tender you may receive and may reject the same (the lowest) or any other tender without assigning any reason therefore.

13. "I have read and understood the General conditions and specification of the work which are printed in Volume – I supplied to me by the Department which will form a part of tender and this shall remain binding on me".

14. I/We have enclosed herewith the following completed documents as required under instructions to tenderers:-

- a) Organisation Chart.
- b) List of similar works carried out by me/us.

- c) Bar Chart/ CPM Chart.
- d) List and description of main plant and equipments proposed to be used on this work and Proforma 1 to 4.
- e) Check list and Vendor Registration Form

15. I/We have inspected the site and I am /we are fully aware of the work to be carried out while tendering for the contract.

16. (A) Mine is a proprietary firm and I am sole proprietor of the firm. My firm is/is not registered with Registrar of firms.

Name : \_\_\_\_\_ Age \_\_\_\_\_ Years

(B) Ours is a partnership firm and the names of all major partners are given below:

NAME	AGE
1. _____	_____ Years
2. _____	_____ Years
3. _____	_____ Years
4. _____	_____ Years

We understand and confirm that if our offer is accepted, the contract will be entered into with the above mentioned partners only and the Trustees will not recognize or deal with any minor partners of their guardians.

(C) Ours in a company with liability and a copy of our Memorandum and Articles of Association will be sent for perusal upon acceptance of our offer.

Proposed contract is intended to be signed by a duly constituted Attorney and original power of Attorney is his favour will be submitted for perusal immediately on acceptance of the tender.

17. The name and address of our Banker is \*\* \_\_\_\_\_  
\_\_\_\_\_

18. My/our permanent Income Tax Accountant No. is \_\_\_\_\_.

Witness's

Tenderer's

Signature \_\_\_\_\_ Signature \_\_\_\_\_

Name \_\_\_\_\_ Name \_\_\_\_\_

Address \_\_\_\_\_ Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



\_\_\_\_\_

Tel. No. \_\_\_\_\_ Tel No. \_\_\_\_\_

Hand Phone (Mobile) No. \_\_\_\_\_

Date \_\_\_\_\_ Date \_\_\_\_\_

N. B. : Strike out whichever is not applicable.  
Here the Name of the Bank should be stated.

NAME AND ADDRESS OF TENDERER:-

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
SIGNATURE OF TENDERER

Witness: - \_\_\_\_\_

Date: \_\_\_\_\_ Day of \_\_\_\_\_ 2016

Witness: - \_\_\_\_\_

Witness: - \_\_\_\_\_



**MORMUGAO PORT TRUST  
ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**iv) APPENDIX TO THE TENDER NOTICE**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**APPENDIX- I**

The following Clauses shall be read in conjunction with respective Clauses of General Conditions of Contract (GCC)

Sr. No.	Particulars	Clause of G.C.C.(Vol. I)	
1.	Amount of Initial Security and Period.	11(1)	Five percent of the contract price and 24 months.
2.	Period for commencement from the Chief Engineer's orders to commence.	38	7 days
3.	Period of Completion	40	6 (Six) months
4.	Amount of liquidated damages.	43	Calculated at 0.5% value of the contract per week of seven days, or part thereof subject to a ceiling of 5% value of the contract.
5.	Free Maintenance Period.	45(1)	12 (Twelve) months.
6.	Percentage of retention from each running account bill	54(1)	10%.
7.	Limit of Retention Money	54(1)	5% value of the contract.
8.	Total initial Security Deposit and Retention Money.	11(1) 54(1)	10% value of the contract.
9.	Minimum amount of interim Certificate	54(1)	Rs.10,00,000/-.
10.	Time within which payment to be made after contractor's submission of the bill based on joint measurement.	54(1)	100 % within 15 working days
11.	Mobilisation Advance	N.A	Not Applicable
12.	Interest rate on mobilization advance.	N.A	Not Applicable
13.	Mode of recovery of Mobilisation Advance	N.A	Not Applicable
14.	Variation in price of labour and materials.	70	Not Applicable to this contract.

15.	Arbitration Clause	66	Not Applicable to this contract.
16.	Minimum amount of third party Insurance.	Cl. No.13 to 16 of Special Instructions	5% of the tendered amount.
17.	Lease rent.	Cl. No.9 to 11 of Special Instructions	Refer Appendix III

Dated this ----- day of ----- 2016

Signature ----- in the capacity of \_\_\_\_\_

----- duly authorised to sign tender for and

on behalf of -----.

( IN BLOCK LETTERS )

ADDRESS : -----

-----

-----

Witness : \_\_\_\_\_

\_\_\_\_\_

Occupation : \_\_\_\_\_

\_\_\_\_\_



**iv) APPENDIX- II**

**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**MATERIALS TO BE SUPPLIED BY THE DEPARTMENT FOR THE WORK**

Sr. No.	Description of materials	Approx. qty. to be supplied	Unit	Rate in Figures/Words	Place of Delivery
1.	Water	--	Cubic Metre	Rs.37.5/m3 (Rupees thirty five only)	Ref. Clause No.9.19 of Special Conditions – Vol.I
2.	Electric Power	----	KWH	Electric supply as per the relevant rate applicable and supply point will be indicated by the CME's Department.	Ref. Clause No.9.20 of Special Conditions – Vol.I

\_\_\_\_\_  
SIGNATURE OF THE CONTRACTOR



**iv) APPENDIX- III**

**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**ESTATE RENTAL CHARGES**

**Name of Work: Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

<b>Sr. No.</b>	<b>Description</b>	<b><u>Rate*</u> Rs.</b>	<b>Remarks</b>
1.	Licence fees on Port land for maintenance office buildings and other structures.	Rate will be charged as per Scale of Rates prevailing during period of contract.	Payment shall be made to CDC Section, Finance Dept based on the recovery advice.

NOTE : Location of suitable area subject to the availability shall be decided by the Chief Engineer.

\* Rate per 10 sq. m. or part thereof per calendar month or part thereof.

---

SIGNATURE OF THE TENDERER



v) PROFORMA 1

**MORMUGAO PORT TRUST  
ENGINEERING ( CIVIL ) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**EXECUTION OF SIMILAR WORK CARRIED OUT AS PRINCIPAL CONTRACTOR DURING EACH OF LAST SEVEN YEARS ENDING 31<sup>ST</sup> MARCH 2015.**

(Rs. in lakhs)

Sr. No.	Tender No.	Name of the work	Employer	Amount Received Rs.
1	2	3	4	5

NAME, SIGNATURE  
& SEAL OF TENDERER :

DATE :



v) PROFORMA 2

**MORMUGAO PORT TRUST  
ENGINEERING ( CIVIL ) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Name of Work: Supply, Installation, Testing and Commissioning of  
Two Numbers of Elevators For Cruise Terminal Building at  
Mormugao Harbour.**

**EXECUTION OF SIMILAR WORK IN PROGRESS AS PRINCIPAL CONTRACTOR TILL  
DATE.**

(Rs. in lakhs)

Sr. No.	Tender No.	Name of the work	Employer	Amount Received Rs.
1	2	3	4	5

NAME, SIGNATURE  
& SEAL OF TENDERER :

DATE :



v) PROFORMA 3

**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**LIST OF MAJOR TOOLS, PLANT AND MACHINERY, SURVEY EQUIPMENTS,  
TESTING APPARATUS IN WORKING CONDITION AND  
OWNED BY THE TENDERER  
(USE CONTINUATION SHEET IF REQUIRED)**

SR. NO.	DESCRIPTION	NO. OF UNITS	YEAR OF PURCHASE	PRESENT CONDITION	PRESENT LOCATION
	MAKE				
	CAPACITY				
1	2	3	4	5	6

NAME, SIGNATURE  
& SEAL OF TENDERER :

DATE :





v) PROFORMA 4

**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Name of Work: Supply, Installation, Testing and Commissioning of  
Two Numbers of Elevators For Cruise Terminal Building at  
Mormugao Harbour.**

**LIST OF PROFESSIONALS TO BE DEPUTED FOR THE SUBJECT WORK**  
(USE CONTINUATION SHEET IF REQUIRED)

SR. NO.	NAME OF PERSON	AGE	PROFESSIONAL EXPERIENCE DETAILS	POSITION HELD IN THE FIRM	SINCE WHEN
		QUALIFICATION			
1	2	3	4	5	6

NAME, SIGNATURE  
& SEAL OF TENDERER :

DATE :



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**(vi) - INSTRUCTIONS FOR PREPARATION AND SUBMISSION OF TENDER**

**1. EARNEST MONEY DEPOSIT (EMD) :**

- 1.1 The Earnest Money shall be lodged by the tenderer on the understanding that in the event of the tenderer withdrawing his tender before the expiry of the tender validity period stipulated in the Tender Notice, the Earnest Money deposited by the tenderer shall be forfeited.
- 1.2 Earnest Money Deposit will be accepted only in the form of Demand Draft issued from any Nationalised or Scheduled Banks having office in the State of Goa. The same shall be drawn in favour of "FA&CAO/MPT" and payable at Vasco -de- Gama. **EMD in cash or in the form of Bank Guarantee will not be accepted.**
- 1.3 For Two cover bidding procedure i.e. one is Technical Bid and other is Financial Bid, the E.M.D. should be placed in a third cover. All the three covers shall be placed in fourth cover properly sealed. The inner envelopes should be separately marked "EMD", "Technical bid" and "Financial Bid". The outer envelope should bear identifications such as (i) Tender No., (ii) Description of work, (iii) Bidders Name and Address and (iv) Time and Date of Bid opening.
- 1.4 Bids if not accompanied by the requisite Earnest Money Deposit (EMD) and in the manner described at 1.2 and 1.3 above is liable to be rejected at the discretion of the Port.
- 1.5 Proper receipt for having received the Earnest Money Deposit (EMD) shall be issued to the bidders after opening the bids.
- 1.6 **Refund of Earnest Money Deposit:**  
Mormugao Port Trust will return, generally within 10 days of the opening of the Price Covers of the tenders; the Earnest Money Deposits lodged by all tenderers except for those whose offers are ranked as the first three lowest acceptable tenders. Such tenderers are requested to contact the Asst. Engineer (Accts), Engineering (Civil) Department in the Head Office for claiming the same.

1.7 E.M.D. of other tenderers, i.e. two among the first three lowest tenderers will be refunded to them only after acceptance of work order by successful tenderer. E.M.D. of successful Contractor will be retained as part of Initial Security Deposit (I.S.D.)

1.8 The return of Earnest Money will be effected through e-payment mode. Tenderers are therefore requested to submit details in Vendor Registration Form. The Mormugao Port Trust will not be responsible for reimbursing to the tenderers the Banker's commission.

2. **INSPECTION OF SITE**

Tenderers are advised to inspect the site before tendering and fully acquaint themselves about the nature and scope of the works to be carried out and other factors relating to the performance of the contract as no claims or complaint/s will be entertained after award of the contract in this context.

3. **PROCEDURE FOR PREPARATION OF TENDERS BY TENDERERS:**

3.1 The tenderer shall complete the annexed Tender, Schedule of Quantities and Rates and insert all the information called for therein, sign and date them. Unsigned tenders will not be considered. The tenderer shall furnish with the tender a notarized xerox copy of the Power of Attorney, or other acceptable authorisation of the person/s signing the tender, unless such copy is already registered with the Mormugao Port Trust.

3.2 Tenderers must return the complete tender set. The tender documents shall not be defaced or detached. Additions and alterations or interpolations shall not be made in the tender document.

3.3 Unless otherwise stipulated in the Tender Notice, the tenderer shall submit his tender strictly based on the official design and specifications.

3.4 All the tenderers shall submit/ furnish along with the tender the followings:-

(a) List of similar works executed by the tenderer.

(b) Detailed CPM network based programme for execution of the work for Part I. He has to plan all his activities in such a manner that work will be completed in the stipulated period.

(c) All tenderers must furnish complete information in accordance with this document alongwith Proformae 1 to 4.

(d) Check list and Vendor Registration Form duly filled in.

4. **SUBMISSION OF TENDER:**

The tenderer is required to submit his tender in the manner described below.

#### 4.1 **Tenders invited under Two cover system:**

4.1.1 The tender is required to be submitted in Two cover system and First cover shall contain:

- (a) All the tender document including the required information of the tenderer's along with the Proformae duly filled in **excluding** Preamble to Schedule of Quantities and Rates, Schedule of Quantities and Rates and Form of Tender which is required to be sealed separately in second cover.
- (b) All the accompaniments set out in Clause 4.4 above
- (c) The First sealed cover shall be superscribed with the Tender Number, Name of Work, Due Date and with the words "TECHNICAL BID (Cover No.1) – To Chief Engineer" and should bear in the bottom left corner, the Name of Tenderer.
- (d) Duly executed power of attorney in the name of Bidders authorised representatives to act on behalf of Bidder in case of Firms/ Partnership duly authenticated by a Notary Public.
- (e) **All Technical Certificates and Financial Statements shall be certified by the Statutory Auditors of the firm or self attested.**

4.1.2 The Second sealed cover shall contain Preamble to Schedule of Quantities and Rates, Schedule of Quantities and Rates for Part I and Form of Tender in the form as described in Clause No.4.1.1(a) above as the case may be. The Second sealed cover shall be superscribed with the Tender Number, Name of the work, Due date and with the words "FINANCIAL BID – (Cover No.2)" and should bear in the bottom left corner, the Name of the Tenderer.

4.1.3 **The Tenderer must ensure that his tendered amount or rates are not mentioned, either directly or indirectly in any of the papers enclosed in the First cover. If any such mention is made there, the tender is liable to be treated as invalid and will not be considered.**

4.1.4 The EMD shall be placed in "Third cover" marked as "EMD" and all the three covers shall be placed in "Fourth cover" properly sealed which shall be superscribed with the Tender Number, Name of the work, Due date and with the words "Complete Tender" and shall be addressed to the Chief Engineer, Mormugao Port Trust. The Name of Tenderer shall appear in the bottom left corner of the cover. Tenderer should also write on this cover whether the tender is submitted against EMD lodged with the tender or against Permanent Earnest Money Deposit.

#### 4.2 **Delivery of Tenders**

4.2.1 The tenders duly completed in accordance with the "Instructions for preparation and submission of tender" contained in this tender document should be placed in the Tender Box (marked "**Tender No.CE/28R1/2016**") kept outside the cabin of the Asst. Engineer (Accts), Civil Engineering Department, Administrative

Office Building, Mormugao Port Trust, Headland Sada, Mormugao, 403804, Tel: 0832 2594628. upto 3.00 pm on due date as indicated in face sheet and First cover Chief Engineer, Mormugao Port Trust offers will be opened at 3.30 p.m. on the same date in the presence of such of the tenderers who may wish to be present.

4.2.2. The tenders addressed to the Chief Engineer/MPT whether sent by post or by hand delivery must reach the office of the Asst. Engineer (Accts), Civil Engineering Department, Mormugao Port Trust, Administrative Office Building, Headland-Sada, Mormugao, 403804, on or before the due date and time. **OFFERS RECEIVED LATE WILL NOT BE CONSIDERED EVEN THOUGH POSTED BEFORE THE DUE DATE AND TIME.**

4.2.3. Offers sent by Telex/Telegram/FAX will **not** be considered.

4.2.4. Unsigned tenders will not be considered.

#### 5. **OPENING OF TENDERS:**

5.1 The tender will be opened at the time and date notified in the Tender Notice, in the presence of such of the tenderers who may wish to be present.

5.2 In the case of Two cover tenders, only the First cover marked to Chief Engineer, (MPT) will be opened at the time and date notified in the Tender Notice.

5.3 The Second cover i.e. **“Financial Bid”** of non-qualified bidders will be retained unopened and no correspondence on this decision will be entertained. The Second covers of only those tenderers, who are found to be eligible, will be opened later. The date and the time of opening the Second cover will be notified to the concerned tenderers and the Second cover will be opened in the presence of such of those tenderers who may wish to be present.

#### 6. **VALIDITY PERIOD OF TENDERS**

The validity period of the tender shall be 180 days after the submission of the Bid Offer. Tenders with a shorter validity period shall be rejected.

7. Tenderers should not send revised or amended offer after the closing day and the time of tender.

8. The contractor shall take special care to protect and support at their own cost the underground service like electrical cables, telephone cables, water-mains, drainage pipelines and other services lines etc. coming in the way of works. Damages if any will be at tenderer's cost.

9. Further clarification, if any, can be obtained from the Executive Engineer, (P&C Section) Engineering Civil Department, Mormugao Port Trust or by contacting the officer designated in the Tender Notice.

10. The tenderers are not allowed to fill in the tender or seal the tender in the MPT premises.

CHIEF ENGINEER  
MORMUGAO PORT TRUST  
MORMUGAO – GOA

Mormugao, Headland Sada.  
Dated:



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**(vii) FORM OF AGREEMENT**

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_ two thousand sixteen BETWEEN the Board of Trustees of the Port of Mormugao, a body corporate under the Major Port Trusts Act. 1963 (herein under referred to as “the Board” which expression shall unless repugnant to the context or meaning thereof mean and include their successors and assigns) of the ONE PART of M/s. \_\_\_\_\_, having their registered office at \_\_\_\_\_ (hereinafter referred to as “the contractor”, which expression shall unless repugnant to the context or meaning thereof, mean and include their heirs, executors, administrators, representatives and assignees or successors in office) of the OTHER PART.

WHEREAS the Board is desirous of executing the work of “ \_\_\_\_\_ ” on the terms and conditions stipulated in the contractor’s tender dated \_\_\_\_\_ and read with the conditions contained in the tender documents attached to the above mentioned tender.

AND WHEREAS the contractor by their above mentioned tender has offered to execute, complete and maintain such work, which tender has been accepted by the Board and such tender with correspondence, specifications, schedule. Amendments and acceptance thereof will constitute abiding contract between the Board and the contractor.

AND WHEREAS the contractor has furnished to the Board, a Bank Guarantee No. \_\_\_\_\_ dated \_\_\_\_\_ for a sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_)

\_\_\_\_\_ only) as Initial Security for the due performance and observance by the contractor of the terms and conditions of this Agreement.

**NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:**

01. In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the conditions of contract herein after referred to.

02. The following documents shall be deemed to form and be read and construed as part of this agreement.

(A) **COVER No. - I**

- a. Contents of Tender Document
- b. Undertaking by the Tenderer
- c. Tender Notice
- d. Clause of General Conditions of Contract.
- e. Appendix I
- f. Appendix II (Materials to be supplied by Department)
- g. Appendix III (Estate rental)
- h. Proforma 1, 2, 3 & 4.
- i. Instructions for preparation and submission of tender.
- j. Additional special instructions.
- k. Scope of Work
- l. Form of Bank Guarantee for EMD and Security Deposit and Form of Agreement (Annexures I & II)
- m. Indicative Drawing No.
- n. A printed set containing Instructions to tenderers, General and special conditions of contract. (VOLUME –I).

(B) **COVER No. II**

- i) Preamble to Schedule of Quantities and Rates



- ii) Schedule of quantities and rates
  - iii) Tender Form
  - iv) Contractor's acceptance letter No. \_\_\_\_\_ dated \_\_\_\_\_.
  - iv) Any other relevant correspondence exchanged upto the issue of work order which has not been specifically mentioned above.
  - v) All additional drawings, specifications and written Instructions when issued by or approved in writing by the Chief Engineer as per clause No.9 of the General Conditions.
03. The contractor hereby covenants with the Board to construct, complete and maintain the work in conformity in all respects with the provisions of the contract.
04. The Board hereby covenants to pay to the contractor the contract price in consideration of the construction, completion and maintenance of the work, at the times and in the manner prescribed by the contract.
05. IN WITNESS WHEREOF THE PARTIES HAVE placed their hand and seals, the day, month, year first above written

THE COMMON SEAL OF THE TRUSTEES OF

THE PORT OF MORMUGAO HAS HEREUNTO  
AFFIXED AND THE CHAIRMAN THEREOF CHIEF ENGINEER  
HAS HEREUNTO SET HIS HAND IN THE  
PRESENCE OF

1.

2.

SIGNED AND SEALED BY THE CONTRACTOR  
IN THE PRESENCE OF

1.

2.



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL ) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**(vii) FORM OF BANK GUARANTEE FOR SECURITY DEPOSIT**

In consideration of the Board of Trustees of the Mormugao Port Trust (hereinafter called "The Board") having offered to accept the terms and conditions of the proposed agreement between \_\_\_\_\_ and \_\_\_\_\_ (hereinafter called "the said Contractor(s)" for the work \_\_\_\_\_(hereinafter called "the said agreement") having agreed to production of an 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.

1. We \_\_\_\_\_ (hereinafter referred to as the "Bank") hereby undertake to (indicate the name of the Bank) pay to the Board an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) on demand by the Board.

2. We \_\_\_\_\_ do hereby undertake to pay the amounts due and payable (indicate the name of the Bank) under this Guarantee without any demur, merely on a demand from the Board stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor(s). 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 Board any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) 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 thereunder, and the Contractor(s) shall have no claim against us for making such payment.

4. We \_\_\_\_\_ further agrees that the Guarantee herein contained shall (indicate the name of the Bank) remain in full force and effect during the period that would be taken for the performance of the said agreement, and it shall continue to be enforceable till all the dues of the Board under or by virtue of the said agreement have been fully paid, and its claims satisfied or discharged, or till the Engineer-In-Charge, on behalf of the Board, certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s), and accordingly discharges this Guarantee.

5. We \_\_\_\_\_ further agree with the Board that the Board (indicate the name of the bank) 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 Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Board against the said Contractor(s) and to forbear 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 Contractor(s) or for any forbearance, act of omission on the part of the Board or any indulgence by the Board 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 \_\_\_\_\_ lastly undertake not to revoke this Guarantee except with (indicate the name of the Bank) the previous consent of the Board in writing.

8. This Guarantee shall be valid upto \_\_\_\_\_ unless extended on demand by the Board. Notwithstanding anything mentioned above, our liability against this Guarantee is restricted to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only), and unless a claim in writing is lodged with us within six months of the date of expiry or 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 the Bank)



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**(ix). SCOPE OF WORK**

The work involves supply, installation, testing & commissioning of machine-roomless passenger elevators (2 Nos) of capacity to carry 8 passengers at the Cruise Terminal Building at Mormugao Harbour.

The specifications are indicated in Annexure – I.

The tenderer shall inspect the site and assess the requirements of the works. The tenderer shall take into account while quoting any modifications, any other works not indicated in the BOQ, (Vol II- Financial Bid) but essential for overall completion of the work. All such works shall also be carried out by the tenderer.

**The rates quoted shall be inclusive of :**

- a) Providing slots for landing push buttons boards and indication.
- b) Grouting for the guides, rails and any supports of the lift structure including cutting and making good of holes in walls etc.
- c) Providing and fixing of frames for landing doors including slots for door locks as may be required.
- d) Providing scaffolding in the elevator shaft and to remove the same thereafter.
- e) Transportation, loading, unloading and handling of elevator equipments and clearing all the mess created thereafter before commissioning of the elevator.
- f) Installation of all safety devices/limits etc.
- g) Any other work essential for completion of work
- h) Civil Modifications shall have to be executed if required at each landing floor to match offered car dimensions to lift shaft provided.



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**(x) ADDITIONAL SPECIAL INSTRUCTIONS**

1. Tenderers are required to sign with date the Schedule of Quantities and Rates and the form of tender and fill in all the particulars and details called for therein. Unsigned tenders, without the details called for are liable for rejection.
2. **Measurements**  
The quantities provided for in the Schedule of Quantities and Rates are only approximate and are given to provide a common basis for tendering. The actual quantity may differ from those provided for in the Schedule in view of the special and complex nature of the work. Payments will be made according to the actual quantities of work ordered and carried out, jointly measured by the representative of Chief Engineer and the contractor.
3. **Rates and Prices to be inclusive.**  
The rates entered in the Schedule of Quantities by the tenderer shall include the provision of all supporting special equipment, labour of required skill, supervision, materials, overheads and profits, watch and ward, insurance charges, during execution and every incidental and contingent costs and charges, whatsoever, including sales tax on works contracts, Entry tax, etc. if any, for compliance with conditions of contract and specification. **Service tax is applicable as per relevant provisions of the act time to time and shall be paid extra.**
4. The tenderer shall inspect the site and fully study the work involved vis-à-vis the specifications etc. before tendering for the work.
5. Any damage to the property of Port should be made good or compensated by the contractor.
6. After completion of the days, work / contract period the contractor shall clean, clear the work site to the satisfaction of the Chief Engineer or his site representative.
7. Permission for working beyond the normal working hours of the Port or on Sundays and Public Holidays as stipulated under Clause No.43 of the General Conditions of Contract, Volume – I of the tender document will be given to the contractor subject to his agreeing to bear the cost of overtime, if any, which may have to be paid to the Port's supervisory staff.

8. Subject to the availability, land for construction of temporary sheds/stores/labour hutments, etc. will be given to the contractor in Port areas at Headland. The contractor shall clear away all the temporary structures built within a period of fourteen days after completion of the work and leave the whole of the site clean to the satisfaction of the Chief Engineer. In case the contractor fails to vacate the Port area / premises allotted to him for site office / store within the stipulated period after the completion of the work, the Board shall have the right to debar such defaulting contractors for future contracts of the Board by blacklisting him and shall also be charged penal lease rental at the prescribed rates.
9. Lease rent shall be charged to the contractors for the area allotted for construction of their temporary sheds for site office/store/labour hutments required in the contract works. The licence fee shall be as per Port's scale of Rates vide item (i) and (ii) of Part - I (Appendix-III).
10. No temporary structures/sheds which are constructed to house the contractor's office/store/labour hutments shall be permitted to be retained during the period of maintenance.
11. All the materials to be used in the structure shall be conforming to relevant ISI specifications or as specified in the Tender Schedule. Contractor shall undertake laboratory test as specified in the relevant I.S.I. at the discretion of Chief Engineer and only approved materials/approved brand of materials shall be used.
12. Electrical power and water required for the work shall be supplied as per the availability at the Port's Scale of Rates vide Item No. I & II of Part - I (Appendix - II).
13. The contractor or his Authorized sub-contractor for supply of labour shall have EPF and ESI Registration No. of the firm and shall contribute towards Employees Provident Fund (EPF) and ESI schemes and submit the copy of the same along with the details in prescribed format while submitting bills. However in case the contractor deploys sub-contractors for supply of labour for principal parts of the works and for such others as the Chief Engineer may direct a legal document should be provided by the tenderer along with Technical Bid.
14. Contractor may submit the following information in order to refund the EMD'S, BG'S/SECURITY DEPOSITS/ RETENTION MONEY, payment of bill's etc.
  - a. NAME OF BANK
  - b. PLACE
  - c. ACCOUNT No.
  - d. TYPE OF A/C No.
  - e. MICR / RTGS / IFS No.
  - f. Permanent Account Number

15. SITE REGISTERS:-

The contractor shall maintain following registers at Site, which shall be entered on day to day basis and produced on demand.

1. Progress of work Register
2. Hindrance Register
3. Site Instruction Book
4. Joint Record / Measurement Register.
5. Labour Register
6. Any other register required by the Chief Mechanical Engineer or his representative.

The Contractor shall keep all registers in safe custody.

16. All precautions to ensure safety of workmen must be taken while unloading & loading the materials during execution of work. Traffic rules should be strictly followed to avoid accidents & unforeseen incidents.
17. Before taking up any digging work, it is the responsibility of the contractor to get cable layout plan from Chief Mechanical Engineer or his representative of the work & arrange to demarcate at the same at the site. The contractor shall take special precaution while carrying out works at location where there is likelihood of any underground cables/OFC etc., & the work shall not be carried out without the presence of an authorized Port supervisor.
18. The Additional Special Instructions given above shall prevail over those stipulated elsewhere in the tender documents forming part of the contract. The volume containing the Instructions of Tenderers, the General conditions, Special conditions and Specifications forms an integral part of the tender document and the same shall be submitted along with the Volume - I of the tender documents all duly signed by the tenderer.



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**(xi) ADDITIONAL SPECIFICATIONS**

1.0 Intent of Specifications

1.1 This specification covers design, manufacture, and assembly, shop testing, inspection, transportation, supply, and delivery at site, installation at site, testing, commissioning and putting into successful operation of 2 Nos. Passenger Elevators (Machine room less) at site with all accessories and auxiliaries including comprehensive maintenance for a period of 5 years beyond free maintenance guarantee period.

In the event of any discrepancies with standards and other documents, the stipulations of this specification shall govern.

2.0 Scope of Work

2.1 Supply, Erection & Commissioning

2.1.1 The bidder will supply and install the lift in the lift shaft built by the Employer. Bidder shall furnish all the details of plumb line of lift shaft and pedestal details of machines in machine room before construction. Bidder shall ensure that the installations of inserts in the lift shaft are made by them. The typical constructional details of lift shaft and machine room are given in enclosed drawing. Bidder's offer should fit with these provisions as construction work is already in progress.

2.1.2 With the Lift, the bidder shall supply operation & maintenance manual which shall be given at the time of handing over.

2.1.3 It is not the intent to specify completely herein all details of design and construction of equipment. However, the equipment shall confirm, in all respects to high standards of Engineering, design and workmanship and be capable of performing safe proper and continuous operation in a manner acceptable to the Project Manager who will interpret the meaning of drawings and specifications and shall reject any work or material which, in his judgment, is not in accordance therewith.

2.1.4 The elevators shall comprise of the following minimum equipment and auxiliaries:

- a) A.C. Motors
- b) Driving machine brakes.



- c) Suspension ropes and their fixtures.
- d) Counter weight and counter weight frame, guide shoes, fixtures.
- e) Lift car complete with car frames, enclosures, platform, guide, shoes, fixtures etc.
- f) Car guides and fixtures.
- g) Counter weight guides and fixtures.
- h) Car doors.
- i) Landing doors with locking devices.
- j) Governors.
- k) Buffers.
- l) Lubricators.
- m) Car operating and distinctly visible indicating equipment.
- n) Electric interlock devices for landings and car doors.
- o) Terminal stopping and final limit switches.
- p) Junction box, switches, fuses etc.
- q) Wiring.
- r) Anchor bolts, base plates, nuts, inserts, sleeves, clips, clamps, rails, miscellaneous joints, screws etc.
- s) Car Light- controlled by a switch provided in the Control Panel.
- t) Car Fan.
- u) Built in emergency light and alarm unit.
- v) Car trailing cables.
- w) Any other parts or components for efficient operation of the lift.
- x) Telephone handset & cable from security control
- y) Steel covers in between door sill & top of door / bottom floor.
- z) ARD facilities should have battery bank of 12AHx4Nos. To facilitate at least 6-7 rescue operations till next recharge.

#### 2.1.5 Others:

1. All steel structures, members, components inclusive of hoisting beams and hoists to accommodate the elevators and its accessories in the lift shaft.
2. Data sheet and technical leaflets on each of equipment.
3. Overload indicator / floor announcement.
4. All other electrical works beyond the power point and earthing points provided at the lift control room.
5. Fireman switch for the lift at ground floor.
6. Electric Control Panel at Top landing.
7. Properly earthed lighting of lift shafts at each floor level with control switches in Control Panel. Control switch for lift pit shall be accessible from floor 1. Lighting in Lift shaft and Lift pit will be done by electrical contractor.
8. Final adjustment of levels, dressing of foundation surface, bedding and supply & grouting of anchor bolts and inserts in the constructed civil work as required for the erection of equipment.
9. Submission and obtaining the drawing and complete work approved from the Inspector including liasoning with the Inspectorate. Liasoning charges and out of pocket expenses for getting approval of work completed shall be included in the rates quoted. Obtaining all approvals as required by local authorities shall be included in the scope of the Contractor
10. M.S. ladder with epoxy painted shall be provided at each lift pit.

11. Any other works required for completion and successful commissioning.
- 2.2 Services:
- i. Providing all labour, skilled and unskilled, supervisory personnel, scaffolding, erection tools and tackles, testing equipment, supplies, consumables, hardware etc. at factory and at site for timely and efficient execution of contract.
  - ii. The items of work to be performed on all equipment and materials shall include but not limited to the following-
    - a) Supply, fabrication, inspection and testing at factory/works.
    - b) Transportation to site and receiving & unloading at site.
    - c) Opening, inspection and reporting all damages and short- supplied items.
    - d) Arranging to repair or re-order all damages or short- supplied items.
    - e) Storing at site with suitable weather protection.
    - f) Complete assembly, erection and connection.
    - g) Final check up, testing and commissioning.
    - h) Trail run, rectification of defects, if any and adjustments as necessary.
    - i) Obtaining Project Manager's approval at each stage during fabrication and erection and written acceptance of satisfactory performance after commissioning.
    - j) Obtaining necessary clearance from lift inspector, fire brigade authorities, electrical inspector and other licensing authorities during and after the complete installation.
  - iii. For the erection and complete commissioning of the elevators as per this specification, all the necessary cables together with necessary fittings, metal boxes, trenches and ducts, trailing cables, suitable earthing for machine and lift etc. shall be supplied and installed by the contractor in conformity with the Indian Electricity Rules or IS Codes as and where applicable.
  - vi. Field modifications carried out shall be marked up in erection drawings and submitted to the Project Manager as "As Built" drawings. 6 copies of drawings and one CD shall be submitted.
  - v. Bidder shall make provision for establishing link with the existing communication system. He shall also make necessary arrangement for the supply and installation of one intercom telephone set in each elevator. The intercom telephone instruments provided by the bidder shall be compatible for working with the existing intercom system. The bidder shall also supply the requisite accessories such as junction boxes, trailing cables, mounting brackets etc.
  - vi. Any other services required for completion and commissioning.
  - vii. Comprehensive maintenance for 5 years after the free maintenance guarantee period inclusive of all labour, spare parts, materials etc. with charges indicated for respective years.
  - viii. Equipment and Services to be provided by the Employer:
- 2.3.2 The elevator shaft (concrete enclosure) and the lift pit (waterproofed) under supervision of lift supplier.

2.3.3 Necessary concrete foundations and reinforced concrete structures, as required, (Details to be furnished along with bid) for lift. The foundation will be done by civil contractor. The details to be given by elevator contractor.

2.3.4 Provision of embedded part for hoisting beams (details to be furnished with bid).

### 3.0 General Requirement

#### 3.1. Codes and Standards:

The work shall conform to latest editions of standards and codes (including all addenda) unless otherwise indicated.

All equipment and materials shall be designed, manufactured and tested in accordance with the latest applicable Indian Standards (IS).

Sr. No.	Description	IS No.
1.	Code of practice for installation operation and maintenance of Electric Passenger and Goods Lifts.	IS-14665-part 2
2.	Outline Dimensions for Electric Lifts.	IS-3534/14665-1
3.	Specification for Electric Passenger and Goods Lifts.	IS-4666
4.	Lift Cables.	IS-4289
5.	Single speed 3 Phase Induction motor for driving lifts.	IS-8151
6.	Specification for steel wire ropes for elevators.	IS-2365
7.	Induction Motors- 3 Phase.	IS-325
8.	Measurement and evaluation of vibration of rotating electrical machines	IS-4729
9.	Code of practice for climate proofing.	IS-3202
10.	Degree of protection provided by enclosures for rotating electrical machinery.	IS-4691
11.	Designation for types of construction and mounting arrangement of rotating electrical machines.	IS-2253
12.	Terminal marking for rotating electrical machinery.	IS-4728
13.	Designation of methods of cooling for rotating electrical machines.	IS- 6362
14.	Guide for testing 3 Phase Induction Motors.	IS-4029
15.	Switchgear general requirement	IS-4237
16.	Factory built assemblies of switchgear and control gear for voltages up to and including 1000 V AC & 1200 V DC.	IS-8623

Sr. No.	Description	IS No.
17.	Miniature Circuit Breakers.	IS-8828
18.	HRC Cartridge Fuses.	IS-9224 (Part II )
19.	D-type fuses.	IS-8187
20.	Contactors.	IS-2959
21.	Starters.	IS-8544
22.	Control switches/ Push Buttons.	IS-6875
23.	Current Transformers.	IS-2705
24.	Voltage Transformers.	IS-3156
25.	Relays.	IS-3231
26.	Indicating Instruments.	IS-1248
27.	Guide for marking of insulated conductors.	IS-5578
28.	Guide for uniform system of marking and identification of conductors and apparatus terminals.	IS-11353
29.	Preconditioning, conditioning and testing of solid electrical insulating materials.	IS-2260
30.	Code of practice for installation and maintenance of switchgear.	IS-10118
31.	Climate proofing of electrical equipment.	IS-3202
32.	Code of practice for phosphate iron and steel.	IS-6005
33.	Wrought aluminum and aluminum alloys for electrical purposes.	IS-5082
34.	Code of practice for construction in Steel.	IS-800
35.	Covered electrodes for metal arc welding for mild steel.	IS-814
36.	Code of practice for the use of metal arc welding for general construction in mild steel.	IS-816
37.	Code of practice for testing of metal and welding.	IS-817
38.	Hot rolled and slit steel tee bars.	IS-1173
39.	Code of practice for electric wiring installations.	IS-732
40.	Specification for rotating electric machine.	IS-4722

Equipment and materials conforming to any other standard which ensures equal or better quality is acceptable, subject to Project Manager's approval. In such case, copies of the English version of standard adopted shall be submitted along with the bid.

The electrical installation shall meet the requirements of Indian Electricity rules and Acts as amended up to date and relevant IS codes of practice. In addition, other rules or regulations applicable to the work shall be followed. In case of any discrepancy, the more restrictive rule shall be binding.

### 3.2 Design Features:

- i. The motors shall be designed for lift service and shall comply with the requirements of the specification.
- ii. The control panel shall comply with the requirements of the specification.
- iii. All materials used shall be of tested quality and shall comply with relevant standards.
- iv. All electrical devices like push buttons, indicating lamps etc. located shall be housed in dust- tight enclosures.

### 3.3 Drawings & Annexure:

3.3.1 All Drawings and annexure appended with the tender shall form the part of this specification and supplement the requirement specified herein and these are for tender purpose only.

3.3.2 Detailed drawings shall be issued during construction stage and this shall be followed during execution.

### 3.4 Completeness of Supply:

Any material or accessory which may not have been specifically mentioned but which is necessary for satisfactory and trouble-free operation and maintenance of the equipment shall be supplied without any extra charge.

### 3.5 Technical Particulars:

The tenderer shall ensure that the technical particulars proposed to be adopted for various systems and equipment in this work is submitted along with the tender in the enclosed formats. In addition, if any, further particulars are proposed to be adopted; the same also shall be indicated.

### 3.6 Performance Requirements:

The elevator and equipment shall be capable for safe, proper and continued operation.

3.6.1 In case of interruption of power supply and failure of the lift should reach to the nearest floor with door open.

3.6.2 Electrical Interlocks for the car doors and landing doors shall be provided which shall prevent any movement of lift unless the doors are properly closed-in position.

- 3.6.3 In case the lift car is struck between two landings it shall be manually possible to lower or raise the car to one of the nearest landings from the lift machine room located on the top of the lift well.
- 3.7 Embedded Parts Requirements:  
No Embedded parts will be provided in the lift well on the shaft walls, ceiling and floor. The tenderer shall make use of Anchor Fasteners (Hilti Anchor) at the time of erection of elevator.
- 3.8 Guaranteed Performance:
- 3.8.1 The performance shall be guaranteed to meet all the requirements as per the specification and in case of failure of any part of equipment to meet the guarantee, the equipment is liable to be rejected and shall be replaced free by the tenderer.
- 3.8.2 Tenderer should provide latest technology. In case of redundancy of technology during the AMC period of 5 years & further 10 years at compatible cost.
- 3.9 Deviations:  
Normally no deviations from specifications are permitted. In case of unavoidable deviation or any other deviation from this specification the same shall be indicated in the format enclosed.
- 4.0 Other Requirements:
- 4.1 Car Frame:
- 4.1.1 The size of the car platform shall be of maximum size that could be accommodated in the lift well as per code of practice.
- 4.1.2 Lift car shall be in a complete structural steel frame covered with a sheet steel as indicated and shall be sufficiently rigid to withstand the operation of the safety gear without permanent deformation to the car frame.
- 4.1.3 At least four renewable guide shoes with renewable linings or set of roller guides shall be provided, two at the top and two at the bottom of the car frame.
- 4.2 Car Enclosure:
- 4.2.1 The car shall be enclosed on all sides by means of car body and door. All sides of the car shall be lined with 18 gauges SS Sheet thick panels properly braced and reinforced. The panel shall be in one piece vertically from floor to soffit line securely bolted together or to the adjoining members with formed lightproof joints and suitably reinforced to provide rigidity. The enclosure shall be furnished on the inside and securely fastened to the platform.
- 4.2.2 The car shall be equipped with fan with anodized Al. frame with grills and suitable LED lighting. Lighting fixture shall be concealed by an acrylic sheet for indirect lighting and also have ceiling speakers to play pleasant music during travel.
- 4.2.3 Necessary provisions shall be made for adequate ventilation of the car. Ventilation openings shall be provided in the enclosure walls.

- 4.2.4 A separate switch shall be provided in the Control Panel to permit switching off the power supply to lift without switching off the fan and light inside the car.
- 4.2.5 Kick plates of 2mm thick to be provided. Hand rails as per standard to be provided at two lateral sides in car.
- 4.2.6 The enclosure of the lift car shall withstand a thrust of 35 Kgs. applied normally at any point, without any permanent deformation.
- 4.2.7 Suitable arrangements to secure isolating cushions between car and the steel car frame shall be provided.
- 4.3 Car Platform:
  - 4.3.1 It shall be constructed of structural steel sections frame works securely fastened together and covered with 3.15 mm M.S. sheet cover provided over the structural steel sections frame work. Over this steel sheet, one layer of wooden flooring with 19 mm thick good quality weather proof, marine proof plywood shall be provided. Over this, one layer of aluminium chequered plates shall be provided for Freight lift & granite tiles/ marble of 12 mm thick as per design, color & quality approved by the owner will be provided by civil vendor for passenger lift. The Lift vendor will compensate the granite/marble weight by putting extra load in counter weight.
  - 4.3.2 Since the car levelling devices will be used, substantial aprons of sufficient depth shall be fitted to the car floor to ensure that no space is permitted between the hold and landing while the car is being levelled to a floor.
  - 4.3.3 Car landing floors shall be provided with rubber buffers.
  - 4.3.4 Platform Deflection shall be limited to maximum 5 mm.
- 4.4 Car Roof & Ceiling:
  - 4.4.1 Car roof shall be covered with sheet metal of 16 gauge sheet. The construction of roof should be strong enough to be capable of supporting at least 170 Kg., without any permanent deformation. The car top should have adequate safety frame work to prevent persons falling while carry out maintenance work. Hot Deep galvanized square bar barricade shall be provided. All sheet steel used shall undergo seven-tank process with painting as indicated.
  - 4.4.2 Test push buttons for slow speed and for up, down & stop should be available on car top. One LED fitting shall also be provided on car top. One 15 Amps 3-pin socket with switch is to be provided on car top.
  - 4.4.3 The roof of cars shall be capable of supporting the weight of two men together with their tools and tackles.
  - 4.4.4 Car Ceiling – Interiors
    - 1. Painted sheet steel frame in grey color powder coated with semi mirrored ceiling panels bathes the car interior with a mesmerizing effect of uniform lighting.

or

2. Painted sheet steel frame in white with white milky acrylic covers & fluorescent lighting.

or

3. Grey colour powder coated frame with mirror stainless steel finish panels & concealed compact LED lamp provided with acrylic light diffuser.

#### 4.5 Car Door:

- 4.5.1 Car door shall be of hollow metal type with horizontally sliding and made of stainless steel (S.S) sheets with hairline finish as per the data sheet with automatic opening and closing feature. Opening of the two doors shall be mechanically interlocked. Doors shall have minimum 1 hour fire rating. Door should be provided with Infrared emergency opening device

#### 4.6 Landing Doors:

- 4.6.1 Horizontally sliding and center opening type stainless steel (18 G. sheets) doors with hairline finish for passenger elevators with rubber buffers shall be provided at each of the landings. Provision for emergency opening of the landing door by means of a special key shall be provided in all floors.

#### 4.7 Door Hangers and Tracks:

- 4.7.1 Suitable hangers and tracks for car and landing doors shall be provided. Suitable material shall be used to minimize noise. Suitable devices shall be provided for transmitting motion from one door panel to the other.

- 4.7.2 All required materials for landing entrance, e.g. extruded aluminum or equivalent sills, strut angles etc. shall be provided.

#### 4.8 Door Operators for Car Door and Landing Doors:

- 4.8.1 The door operation shall have power opening and power closing. Necessary variable frequency door operators shall be provided. The car door and the landing door shall move simultaneously during opening and closing. The necessary door cushioning devices shall be provided.

- 4.8.2 Upon the car reaching the landing speed in response to a hall or a car call, a soft chime in the car shall sound. Door opening shall commence when the car is 25mm from levelling.

- 4.8.3 The car door and the landing door shall open automatically when the car stops at a landing. Necessary door locking devices shall be provided. Should there be a power failure; the door operator shall be so designed that doors can be manually opened from within the car. Time of car door opening should be adjustable within the range of +1 second. Doors shall open at a nominal speed of 1.2 m/sec. Door closing speed shall be adjustable from 1.5 to 2.5 seconds or demanded by particular circumstances.

#### 4.9 Car leveling accuracy:

- 4.9.1 The elevator shall have levelling accuracy of maximum of  $\pm 5$  mm.



#### 4.10 Control and operation:

4.10.1 The control for the elevator shall be of ACVVVF, Duplex full collective and selective type microprocessor control automatic with provision for attendant control.

#### 4.11 Car Operating Panel:

4.11.1 In the car, an operating panel with micro push button station containing the following shall be provided:-

- a. Luminous micro pushes / touch buttons to elevations of the landings served.
- b. Two position key-operated change over switch, marked to indicate "with attendant" and "without attendant"
- c. Micro push button for Emergency Alarm at Ground landing as per standard.
- d. Non-stop button.
- e. Switch for fan for manual switching ON. But auto switch OFF.
- f. Door open push buttons.
- g. Door close push button for fast closing of door to maintain better handling of traffic.
- h. Visual and audible over load alarm.
- i. Braille push buttons to be provided in lift car and at each landing as per Central Government regulations.

1.1.1. When the key switch in the car-operating panel is set at the attendant position, the attendant will have full control of the operation of the elevator. Any landing calls which are then registered will cause a buzzer to sound in the car operating panel and the appropriate indicator light to illuminate. Non-stop motion shall be possible only in "with attendant" position.

#### 4.12 Car position indicator in car:

4.12.1 A signal indication shall be provided by the appropriate numeral (which shall be the respective floor numbers) being illuminated when the car is passing the corresponding floor. The indication shall remain illuminated when the car is stopped at a floor. Standard size of up and down travel direction indicator lights shall also be provided.

4.12.2 It shall not be possible to operate the lift unless the car and landing door are locked in close position.

4.12.3 When the lift is in operation, it shall not be possible to open the lift car and landing door.

4.12.4 Voice Guidance System - It should have facility to instruct the passenger on the current status, floor number etc.

#### 4.13 Electronic door detector on car door

4.13.1 Electronic door detector shall be provided on car doors. A screen on infrared beams acts on a safety curtain across the door entrance (Zigzag type). If any of the beams is broken, the door immediately stops and then retracts without contact both smoothly and quietly. The doors will not close until all persons / objects are completely clear of the entrance. Minimum of 32 infrared beams shall be provided. Suitable provision for opening and closing of car, when this system fails to work shall also be provided.

4.14 Terminal buffers:

4.14.1 The terminal buffers shall be furnished for stopping the car and the counterweight at the extreme ends of travel. All structural steel members required to install the buffer shall be provided. Adequate lighting shall be provided at the top, intermediate (on every landing) and bottom of lift well for safety of maintenance personnel. Lighting in Lift shaft and well to be provided by Electrical contractor.

4.15 Load plate:

4.15.1 A load plate giving the rated payload of the elevator shall be fitted in the car in a conspicuous position. The rated load shall be given in kilograms and also in number of persons.

4.16 Counter-weights and counter-weight frames:

4.16.1 C.I. counter-weight sections shall be mounted on structural steel frames so designed to retain the weights securely in place. Counter-weight frames shall be guided on each guide rail by upper and lower guiding members attached to the frame. A substantial metal counter-weight guard of required length should be provided at the bottom of the landing. The weight shall be equal to the weight of the car plus approx. 50% of the contract load.

4.17 Guides for Car and Counter-weight:

4.17.1 Car and counter-weight guides shall be of rigid steel and shall be continuous throughout the entire length. These shall be provided with adequate steel bracing and stiffeners. Guides for both car and counter-weight shall meet with the requirements of ARE: 4666. The necessary lubricating device for guide rail shall be provided.

4.18 Terminal Limit Switches and Final Limit Switches:

4.18.1 Normal terminal limit switches shall be provided to slow down and stop the car automatically at terminal landings and final limit switches shall be furnished to automatically cut-off the power and apply the brakes, should the car travel beyond the terminal landings.

4.19 Safety Gears:

4.19.1 The elevators shall be provided with one or more safety devices capable of stopping and sustaining the lift car with full rated load in the event of main rope snapping. This when the safety gear is applied, no decrease in the tension of the governor rope or motion of the car in the descending direction shall release the safety gear. The safety gears shall meet the requirements of IS: 14665.

4.20 Over speeds Governor:

4.20.1 The elevators shall be equipped with over speed governor device which operates to apply the safety gear if the speed of the car in the descending direction exceeds a pre-determined limit i.e. at 140% of car maximum speed. In the above condition, the governor should actuate the following:

- a) Disconnect the power to elevator machine.
- b) Apply the main brake

- c) Apply the car safety brake  
The governor shall conform to IS: 14665.

4.21 Brakes:

- 4.21.1 Electromagnetic brakes for stopping the lift in case of power failure shall be provided. The details of equipment offered shall be indicated.

4.22 Ropes:

- 4.22.1 Suitable traction steel hoist ropes of the sizes and number to ensure proper wearing qualities shall be supplied. As a minimum, the number of ropes shall comply with the factor of safety requirements of Indian Standard for lifts. The full details of ropes, the maker's name, trade name, breaking strength, designed factor of safety of all ropes shall be submitted with the tender.

- 4.22.2 More than two independent wire ropes shall be used for cage and counter weight with traction drive and each of the drum drives and wire ropes shall be fixed independently to cage and counter-weight. Factor of safety for normal working to be taken as 10. Ropes shall be lubricated with approved type of lubricant. The suspension wire ropes shall conform to IS: 2365.

4.23 Automatic Rescue Device:

- 4.23.1 Battery operated Automatic Rescue Device shall be provided and should actuate in case of power failure to move the elevator at a slow speed to nearest floor level and facilitate the rescue of passengers in the elevator.

4.24 Reverse Phase and Phase Failure Device:

- 4.24.1 Reverse Phase and Phase failure device shall be provided to protect the machine against phase reversal and failure of any phase.

4.25 Structural Steel:

- 4.25.1 All necessary additional steel items associated with the elevator such as machine supporting beams, bearing plates, supporting channels, steel supporting angles, etc. shall be supplied by the tenderer.

4.26 Emergency Light:

- 4.26.1 Emergency light in the car wired to a self contained battery and charger shall be provided which shall be so arranged that in case of power failure, the emergency light come on automatically. Cells should be of rechargeable type.

4.27 Push Button Station and Call-registered telltale lights:

- 4.27.1 Concealed type Stainless Steel single "up" or "down" push button at terminal landings, both "up" and "down" push buttons at each intermediate landing including call registered lights ("up" and "down" call registered lights at each terminal landings and both "up" and "down" registered lights at all intermediate landings) for each push button shall be provided. These shall illuminate when the corresponding button is pressed to indicate that the call is registered and shall remain illuminated until the call is answered. Bell and illumination indications shall be provided in each landing to show UP / DOWN direction of elevator.

4.28 Floor position indicator:

4.28.1 For each landing, floor position indicator in the car and in the landings shall be illuminated numeral of seven segment display.

4.29 Earthing:

4.29.1 The equipment supplied shall be earthed to the two separate earth points provided by the employer at top landing with the following arrangement and as per provisions of Indian Electricity Rules. Earthing will be supplied by electrical contractor.

The ground connection shall be suitable for accommodating ground conductors as follows:-

Motor and Controller : 4 sq.mm PVC insulated copper stranded wires.

Other equipments : 2.5 sq.mm PVC insulated copper wires.

Control Panel : 4 SWG copper wires.

4.29.2 Two independent grounding points at appropriate ends shall be provided on the frame of motors, winding machine, the frame of the control panels etc. The grounding points shall be provided complete with tapped holes, G.I. bolts and washers. Will be provided by electrical contractor.

4.29.3 The exposed metal parts of electrical apparatus installed in the lift car shall be sufficiently bounded and earthed.

4.29.4 Flexible and screwed conduits shall be properly earthed.

4.30 Foundation plates, Anchor bolts, Sleeves, Inserts, Eye bolts etc.:

4.30.1 The specification includes the supply and fixing of all required foundation plates and base plates wherever necessary.

i) Anchor bolts and other inserts in the concrete wherever necessary shall also be supplied and fixed by the bidder.

ii) Each equipment shall be equipped with suitable lifting attachments e.g. lifting lugs; eye bolts etc. to facilitate erection and maintenance.

4.31 Pit switch:

An emergency stop switch shall be located in the pit which when operated shall stop the car regardless of position in the hoist way.

4.32 Travelling cable:

Travelling cable shall be secured to the cars underside. Cable shall be clear of all obstructions while car is in motion. Cable jacket shall be rated for immersion in water, salt water and oil. Jacket restraint shall minimize strain on conductor.

4.33 Electric Wiring:

4.33.1 Power will be supplied by Employer in machine room terminating to 1 No. 63 A MCB/SFU. All further wiring to motors and controllers, Lift well lighting, wiring to hall buttons, alarm bell, car position indicators, car lighting shall be provided by the Elevator contractor. Necessary auxiliary switches, fuses, ELCBs for

separating lighting and control circuits from Main Power feeder shall be provided by Elevator Contractor. Lift well lighting provided by electrical contractor.

4.33.2 All wiring shall be copper conductor, moisture proof insulation and will run in heavy gauge metal conduit complete with fittings, junction box equipment earthing etc., and shall conform to IS CODE OF PRACTICE and the Local Lift Inspectorate Regulations.

5.0 Control Panel:

5.1 General Design Requirements:

5.1.1 The design manufacture and performance shall comply with all currently applicable statutes, regulations and safety codes.

Control panels shall be of CRCA sheet steel and shall be dust, weather and vermin-proof providing a degree of protection of IP-54 as per IS: 2147. Sheet steel used shall be cold rolled and at least 14 gauge thick and properly braced to prevent wobbling.

5.1.2 Control panels shall be provided with concealed hinged doors with locking arrangement. Suitable brackets or channels shall be provided for the type of mounting specified and fixed properly. Louvers when provided shall have screens and filters with fine brass wire mesh as per standards.

5.1.3 All doors, removable covers and plates shall be provided all around with polypropylene/rubber gaskets. All accessible live connections shall be shrouded and it shall be possible to change individual fuses, switches and MCBs without danger of contact with live parts.

5.1.4 All live parts shall be provided with phase to phase and phase to earth minimum clearance in air as per the relevant Indian Standards.

5.1.5 Two earthing terminals 4 SWG copper wire shall be provided and connected to the earthing terminals. Only connection to be done by Elevator contractor.

5.1.6 All sheet steel work shall be degreased, pickled, phosphate (7 layer treatment) and then applied with two coats of Zinc Chromate Primer and two coats of finishing Synthetic Enamel paint, both inside and outside, of colour as specified in the data sheets. Power supply shall be controlled within the cabinet by adequately rated MCCBs / MCBs.

5.2 MCBs / Switches

5.2.1 MCBs shall be of hand operated, air break, heavy duty quick make, quick break type conforming to applicable standards and codes.

5.2.2 The rating of MCB shall be so chosen as to get complete protection by the associated overload relay or fuse under all normal and abnormal conditions such as full load, overload, locked rotor, short circuit etc. MCBs shall be provided with overload and short circuit protection device.

**5.2.3** It shall be the responsibility of the tenderer to fully co-ordinate the overload and short circuit tripping of the MCBs with the downstream MCBs, fuses, motor starters etc. to provide satisfactory performance.

**5.2.4** ELCBs shall be provided on main supply at Control Panel, which feeds for hoist way lights, pit lights and car lights.

**5.3** Contactors:

**5.3.1** Contactor type motor starters shall be of the full voltage, DOL, air break, single throw, electro-magnetic type unless otherwise specified.

Contactors for non-reversing motors shall be suitable for utilization category AC3.

Contactors for reversing motors shall be suitable for utilization category AC4.

**5.3.2** Contactor shall be provided with at least 2NO and 2 NC auxiliary contacts.

**5.4** Fuses:

**5.4.1** All fuses shall be of HRC cartridge link type, mounted on plug-in type of fuse bases having a suitable rupturing capacity.

**5.4.2** All accessible live connections shall be adequately shrouded and it shall be possible to change fuses with the circuit alive, without danger of contact with live parts.

Alternatively MCBs can be used.

**5.5** Cabinet Internal Wiring:

**5.5.1** Control cabinets shall be supplied completely wired, ready for external connections at the terminal blocks. All wiring shall be carried out with 1100V grade, PVC insulated, stranded conductors. Power circuits shall be wired with stranded copper conductors of adequate sizes to suit the rated circuit current (minimum size shall be 2.5 sq. mm). Control, alarm and indication circuits shall be wired with stranded copper conductors of sizes not smaller than 1.5 sq. mm.

**5.5.2** Engraved identification ferrules, marked to correspond with the wiring diagram shall be tightly fitted at both ends of each wire and shall not fall when wire is removed. All wiring shall be terminated on terminal blocks using solder less crimping type tinned copper lugs. Terminals shall be adequately rated for circuit current; the minimum ratings shall be 20A.

**5.5.3** 1100V graded terminal blocks complete with insulated barrier, terminal studs, washers, nuts, lock nuts and identification strips shall be provided.

**5.6** Labels and Diagram Plate:

**5.6.1** Every component mounted in the panel shall be provided with individual labels with equipment designation and rating engraved. Also, the panel shall be provided on the front with a non-rusting label engraved with the designation of the cabinet danger board etc. as instructed by the Project Manager.

- 5.6.2 A separate laminated permanent circuit-wiring diagram shall be fixed inside the door of a control cabinet for reference. Labels shall have white letter on black or blue background.
- 5.7 Data to Be Furnished:  
Following data shall be submitted within 1 week after the placing of order.
- 5.7.1 Schematic diagram indicating terminal numbers for external connections and with a bill of material for all the equipment.
- 5.7.2 Control cabinet drawing showing outline dimensions, cable entry openings, floor, wall and pedestal fixing arrangements, padlocking arrangement, weights etc.
- 5.7.3 Manufacturer's technical literature on various equipment mounted on control diagram.
- 5.7.4 Cabinet internal wiring diagram.
- 5.7.5 Test certificates for the control cabinet and the various equipment mounted therein shall be submitted at least 2 weeks before dispatch of equipment.
- 5.7.6 The tender should allow at least one (1) week's time in his manufacturing schedule for approval of the drawing by the Project Manager.
- 5.7.7 Ten (10) copies of instruction manuals (bound) shall present the following basic categories of information in practical, complete and comprehensive manner prepared for use by operating and maintenance personnel-
1. Instruction for initial installation.
  2. Instruction for operation, maintenance and repair
  3. Recommended inspection points and periods of inspection
  4. Ordering information for all replaceable parts, etc.
- 5.7.8 A general description of the equipment including significant technical characteristics shall be included.
- 5.7.9 Necessary drawings and other illustration shall be included or copies of appropriate certified drawings shall be bound in the manual. Test, adjustment and calibration, information, as appropriate, shall be included and shall be identified to the specific equipment. Safety and other warning notices and installation, maintenance and operating cautions shall be emphasized.
- 5.7.10 A part list shall be dispatched showing part nomenclature, manufacturer's part number and other information necessary for accurate identification and ordering of replacement parts.
- 5.7.11 The instruction manual shall include the list of spare parts that have been procured along with the equipment.

- 5.7.12 The instruction manual shall include the list of special tools and tackles furnished with complete drawings and instructions for use of such tools and tackles.
- 5.7.13 The instruction manuals will need approval of the purchaser as in case of the drawings.
- 6.0 Three Phase Permanent Magnet Gearless Motors
- 6.1 Design Requirements:
- 6.1.1 General:
- a) Energy efficient Motors shall be designed, manufactured and equipped with accessories in accordance with this specification and relevant standards, to suit lift duty.
  - b) While ordering the motors the tenderer shall have proper co-ordination with the motor manufacturer for compliance of the specifications during manufacture of motor.
- 6.1.2 Insulation:  
Class "F" type of insulation shall be provided.
- 6.1.3 Terminal boxes:  
Separate terminal boxes shall be provided for stator leads and space heaters. It shall be fabricated from Cast iron. The terminal box shall be suitable for top and bottom entry of cables and suitable for terminating required sizes. Neoprene rubber gaskets shall be provided.
- 6.1.4 Grounding:  
The motors shall be connected to the grounding system provided by employer with 2 nos. of taper holes at two places with suitable bolts, nuts and spring washers. Diameter of the holes shall be 8 mm.
- 6.1.5 Vibration:  
The motor vibration shall be within the limits specified in IS: 4729.
- 6.1.6. Bearings and Bearing Housing:  
Housing shall prevent dust and moisture from outside and inside and prevent lubricants reaching winding. Lubricants shall be suitable for prolonged storage without deterioration. No external forced oil or water-cooling is to be provided for the bearings. There shall be no need for frequent lubrication.
- 6.1.7 Lifting facility:  
Motors weighing more than 15 kg. Shall be provided with eye bolts, lugs or other devices to facilitate lifting operations.
- 6.1.8 Name plate and Diagram of connection:  
Each motor shall have a name plate showing all the particulars as specified in IS: 325.



- 6.1.9 Drive  
Variable speed drive should be provided as per standard.
- 6.2 Performance
- 6.2.1 Supply Voltage and Frequency Variation:  
Motors shall be suitable normal variations in the power supply of 415 V (5% frequency, 10% voltage, 3% voltage unbalance, all + or -).
- 6.2.2 Starting Duty  
Motors shall be suitable for the duty cycle demanded by the elevator. They shall be capable of starting and accelerating even at 80% of the rated voltage.
- 6.3 Inspection and Testing
- 6.3.1 Inspection and Testing at Manufacturer's Works:
- 6.3.1.1 Manufacturer shall conduct all the tests required to ensure that the equipment supplied shall conform to the requirements of this specification, applicable codes and Indian Standards.
- 6.3.1.2 All welding shall be done in accordance with relevant Standards and Codes by qualified welders.
- 6.3.2 The particulars and the procedures of the all tests carried out shall be submitted to Project Manager for approval before carrying out the test.
- 6.3.3 The Project Manager's representative shall be given full access to all tests. The tenderer shall inform the Project Manager well in advance prior to all major tests, so that if the Project Manager so desires, his representatives can witness the tests.
- 6.4 Tests at Site:
- 6.4.1 After assembly and erection at Site, the lift shall be tested at site before it is put into normal service.
- 6.4.2 The tenderer shall be fully responsible for carrying out all the tests required as per the relevant Indian Standards.
- 6.4.3 The tenderer shall have to obtain necessary clearance from the Lift Inspector and fire brigade authorities and other appropriate authorities during and after the complete installation. It will be the responsibility of the lift contractor to get the installation inspected and passed by the Government Inspector for Lifts. Any modifications as suggested by the Inspector for Lift shall be attended by the tenderer at no extra costs to client. All inspection fees for such inspection shall be borne by the tenderer only.
- 6.5 Test Witness:
- 6.5.1 All tests shall be performed in the presence of Project Manager's representatives and other statutory authorities.

- 6.5.2 The tenderer / manufacturer shall give at least thirty (30) days advance notice in case of shop tests and seven (7) days advance notice in case of site tests.
- 6.6 Test Reports:
- 6.6.1 Acceptance and routine tests for all supply equipment and components shall be carried out as per the relevant standards. These test reports and available type test reports shall be submitted to the Project Manager before the dispatch of the equipment.
- 6.6.2 Certified copies of all tests carried out at works and at site shall be furnished in six (6) bound volumes.
- 6.6.3 The equipment shall be dispatched from works only after the receipt of Project Manager's written approval of shop test reports and after proper shipping release.
- 6.6.4 Type test certificate on any equipment, if so desired by the Project Manager, shall be furnished by the manufacturer. Otherwise the equipment shall have to be type tested, to prove the design at the tenderer's cost.
- 6.7 Special Cleaning, Protection and Painting
- 6.7.1 Cleaning and Painting before shipment:  
Before transportation of the equipment to be supplied under this specification, necessary cleaning, flushing etc. shall be done. Shop coats (two) of rust inhibiting epoxy based paints over all steel surfaces, lacquers etc. shall be applied.
- 6.7.2 Packing for Shipment:  
All parts shall be properly boxed, crated and protected for transportation. Exposed finished surfaces shall be thoroughly greased before transportation.
- 6.7.3 Finish Coats:  
Epoxy paint (3 coats) shall be applied over on all steel surfaces as the final coats of finishing and shall be arranged at site after erection. The colour of paint shall be got approved before application.
- 6.8 Special Tools and Tackles
- 6.8.1 Normal tools and tackles along with the tool boxes for elevator required for maintenance shall be supplied be brought by the tenderer and a list shall be furnished along with the tender. Or person should come with tools whenever required.
- 6.8.2 Critical tools to be kept at site for emergency work.
- 6.9 Spares
- 6.9.1 The list of spares supplied free along with the supply for various equipment uses shall be indicated. Spares should be supplied free during warranty/defect liability period.

6.10 Drawings, Data and Manuals

6.10.1 Three (3) copies of drawings, technical particulars and manuals shall be submitted along with the bid.

6.11 Drawings and Other Information with the Tender

Besides submitting the technical requirements enclosed "Annexure" duly filled in, the bidder shall also include the following with the tender-

- a. A layout showing principal dimensions of the elevator car and escalator in plan and the elevator car and shaft in elevation.
- b. A layout drawing showing the location of various equipment in the Lift shaft and escalator.
- c. An electrical schematic indicating terminal points of supply and erection.
- d. Write up and descriptive and illustrative pamphlets on various components of the
- e. Elevator and its control.
- f. Other drawings, data sheets and literature as necessary.
- g. An experience list on supply of similar equipment, clearly indicating the date of supply and the basic ratings of the equipment.

6.12 Particulars of Drawings, Data & Instruction Manuals to Be Submitted By Successful Bidder

1. Final dimensions of the lift
2. Largest package for transport – Dimensions :  
Weight :

6.13 Drawing Submission Schedule:

The bidder shall fill up the drawing submission schedule enclosed with the specification, indicating the probable dates (counting from the date of issue of letter of intent) for submission to Project Manager for approval of various drawings, data manuals, etc.

1. Layout drawings including foundation design data for elevator shaft and Control Panel details.
2. Complete schematic and wiring diagram of power and control circuits.
3. Braking load on guides.
4. Fixing detail of side guides.
5. Reaction of buffers on lift pit
6. Performance curves for motors.
7. Drawing on control panel, car operating panel, car position indicator in car, push button station and call registered telltale lights at hoist way.
8. Other drawings and data as necessary.
9. Reports on shop tests and test certificates.
10. Material test certificates.

7.0 Erection and Commissioning

7.1 Scope:

The tenderer shall erect the complete Elevator and its accessories at site including and supervise the commissioning as covered under this specification.

7.2 Inspection of Site:

The tenderer or his representative will be deemed to have inspected and

examined the site and surrounding before submitting his tender and shall obtain the necessary information as to risk, contingencies and other circumstances which may influence or affect his tender.

7.3 Superintendence and Labour:

The tenderer shall provide supervision and work force for erection, which shall include without limitation.

The employment of a competent erection superintendent who shall be constantly at site and shall give his whole time to the superintendence and whose duties shall include the supervision of the unloading, assembly, Installation, repair, replacement of any damaged components, providing operating adjustments and making good short supplied items.

The employment of a sufficient number of competent assistants to the Erection Superintendent to provide supervision and work force necessary to complete the work within the time specified.

7.4 Co-Ordination of Work:

The tenderer shall plan his operations so as to avoid interference with the operations of the Project Manager or of other contractors or subcontractors at site. The manufacturer shall organize his work to suit the timings shown on the construction schedule.

7.5 Sanitation:

All medical and sanitary arrangements shall be provided by the tenderer at his own expense. The tenderer shall at all time keep the site free from the accumulation of waste materials and debris.

7.6 Site Handling of the Equipment:

The tenderer shall be responsible for loading and transportation of the equipment included in the purchaser order from the place of storage to the point of erection of equipment.

7.7 Responsibility of the Tenderer:

7.7.1 The successful bidder shall observe all necessary precautions during loading, unloading, transportation and erection to ensure safety of all equipment and personnel. The successful bidder shall be responsible for all damage and claims. It shall be the responsibility of the successful bidder to rectify or replace the damaged equipment at no extra cost to the Project Manager. Damage parts during loading, unloading and installation and testing commissioning to be replaced free of cost.

7.7.2 Unless the equipment with all accessories and auxiliary equipment including items short supplied at the time of delivery and items damaged during transit are installed, erection will not be deemed to be complete.

7.7.3 During erection of the equipment, the tenderer shall complete the inter-panel wiring of the elevator control panel. At the time of commissioning, the tenderer

- will be required to verify the external control wiring to ensure compliance with the schematic drawings.
- 7.7.4 At the time of erection of the elevator and accessories, the tenderer shall furnish six (6) copies of documents containing complete information on the elevator and its accessories. The document shall include the following: Test certificates for critical items mandatory.
1. Copies of routine and type test certificates for all components of the equipment.
  2. Instruction manual covering operation and maintenance of all components of the elevator & escalator.
  3. One set of descriptive literature or catalogues for all components of the elevator and accessories.
- 7.7.5 At the time of commissioning the tenderer shall carry out all the pre-commissioning checks required for commissioning the equipment. The tenderer will be required to submit a complete list of all the recommended pre-commissioning checks, for Project Manager's approval, after approval of the schematic drawings.
- 7.7.6 The final list of pre-commissioning checks to be carried out will be intimated by the tenderer at the time of commissioning. The pre-commissioning checks will be carried out at site by the tenderer in the presence of Project Manager's representatives.
- 7.7.7 All major parts of the equipment should be properly provided with guards to avoid any accident.
- 7.7.8 The tenderer may procure and incorporate such ancillary items as are not normally manufactured by them. The list of such items and the manufacturer's name shall be furnished along with the tender.
- 7.7.9 Tenderer shall indicate the country of manufacture of the equipment offered.
- 7.7.10 The entire work including design, supply, installation, testing & commissioning shall be completed in all respects within 6 months.
- 7.7.11 Prompt service during guarantee/maintenance period for repairs and breakdowns as indicated in the comprehensive maintenance specifications.
- 8.0 Comprehensive Maintenance
- Comprehensive maintenance shall comprise of maintenance required including spares for the elevator including but not limited to Automatic Rescue Device (ARD), infrared system, door operations, Electronic panel parts, Door parts, display & control parts, etc. complete.
- Comprehensive maintenance shall consist of following for elevator:
- 1.1. Routine maintenance
  - 1.2. Servicing
  - 1.3. Break down maintenance
  - 1.4. Repair and replacement of parts

## 1.5. Rescue operation.

### 8.1 Technical Specifications

#### a) Routine Maintenance:

The tenderer will regularly examine, lubricate and adjust the equipment to carry out planned maintenance in a systematic and controlled manner using their techniques, original spares and expertise and as recommended for elevator. The frequency of routine maintenance will be monthly. If required, the frequency of routine maintenance shall be increased. Manpower as necessary shall be deputed to carry out routine maintenance as per schedule.

As a minimum, a schedule of routine maintenance is indicated in enclosed Annexure – IXA. A checklist is also enclosed in Annexure – IXB which shall be filled in by the agency after carrying out every routine maintenance and shall be submitted to the Project Manager-in-Charge. In case, any discrepancy is observed or found in between two subsequent routine maintenance, the same shall be reported by the tenderer to the employer and these defects shall be rectified within 8 hours after reporting. In addition to above, whenever Project Manager-in-Charge desires to cross check the check list report, same shall be arranged by the tenderer.

The necessary spares for routine maintenance shall be supplied by the tenderer without any extra payment. Maintenance personnel should come with requisite parts during scheduled and breakdown work.

#### b.) Documentation

Documentation of all repairs/calls to be maintained at site. Service representative to review register on monthly basis. Annual audit of all safeties & reports on everything including OK certificate.

#### Servicing:

Servicing of elevator's machines and accessories shall be carried out using their techniques, spares and expertise as recommended. The frequency of servicing shall be half yearly / annually. The details of servicing are indicated in Annexure – X which shall be followed. Any additional servicing necessary for achieving the availability of equipment at all times shall also be carried out free of cost.

Tenderer should provide as and when required certificate.

The following shall also be included in servicing for a smooth and safe functioning of elevator:-

1) It is not expected to change the wire rope due to normal use during the maintenance period under this contract. However, if it becomes necessary to change the wire rope due to improper supply / maintenance, the same shall be replaced by the tenderer free of cost. The decision of Project Manager in Charge shall be final.

2) Maintaining adequate factor of safety, equalization of tension of all ropes, repair / of defective traveling cables and hoist way and machine room elevator wiring as required.

- 3) Providing lubricants / compounds as per standard practice.
- 4) Examining safety devices and governors and making all customary safe tests.
- 5) Systematically examining, servicing and adjusting, replacing spare part for the following components.  
Machine, worm gear, Drive Sheave, Bearing, Linings, Motor, Cords, Rotating Elements, Brushes, Coils, Magnet frames and other mechanical parts including commutators, its brushes and brush tension, controller, selector, automatic rescue devices (ARD) including its batteries, leveling devices, cams relays, solid state components e.g. PCBs, VVVF control (micro-processor) transducers, passive and active devices, transformers, contacts, selector tapes, timing devices, floor and final limit switches and other electrical and mechanical driving equipment, deflector sheave, bearings, car and counter weight guide rails and buffers, top & bottom limit switches, governor tension, sheave assembly guide sheaves including rollers, interlocks on door, guides, automatic power(VVVF) operated doors operation, car door contact, safety shoe, load weighing equipment, car frame, car safety mechanism & plant form fans, alarms and emergency lights, CFL lights etc. for complete elevator system including servicing of all other equipment added during maintenance contract period.

#### Break down Maintenance

Whenever, any complaint is given to the tenderer to rectify any breakdown on any elevator or escalator, same shall be responded within shortest possible time but not later than one hour. The maximum period required for rectifying any breakdown shall be as follows:

- a. Minor break-down as per Annexure – IX –within 4 hours after reporting, Time of response- 2 hours.
- b. Major break down as per Annexure –XII
  - i. 3 days for attending defective rope, trailing cable etc.
  - ii. 4 days for burning of motor.  
(Including Sundays, Public or other holidays.)

During routine maintenance, half yearly and annual servicing and other break down maintenance, the tenderer shall replace/repair component /equipment/ parts pertaining to elevator necessary for smooth and safe functioning of elevator and as directed by Project Manager in Charge at no extra cost.

#### Rescue Operation

In case of any emergency like trapping of passenger within elevator or any other emergency situation that may arise in any elevator, the tenderer shall depute immediately suitable personnel at site for rescuing and mitigating the emergency. The rescue personnel of the tenderer shall report to the site within one (1) hour after reporting. A suitable transport to reach the site for rescuers

shall be arranged by the tenderer. All rescue devices shall be arranged and kept at respective site in good working conditions. Training shall be given to lift attendants, security personnel and office staff on manual rescue operation for speedier rescue.

## 8.2 Man Power:

The tenderer shall depute following personnel for various maintenance activities:

### a. Routine Maintenance:

Sufficient number of highly skilled & skilled mechanics having sufficient experience in the operation & maintenance of elevators shall be deputed in addition to man power required for break down maintenance. The numbers to be deployed shall be indicated above in the tender.

### b. Servicing:

Sufficient number of highly skilled & skilled mechanics having sufficient experience in the operation & maintenance of elevator shall be deputed in addition to manpower required for break down maintenance. The numbers to be deployed shall be indicated above in the tender.

### c. Break down Maintenance:

Sufficient number of highly skilled & skilled mechanics having sufficient experience in the operation & Maintenance of elevators shall be deputed.

### d. Repairs & Replacement of Parts:

Sufficient number of highly skilled & skilled mechanics having sufficient experience in the operation & maintenance of elevator shall be deputed in addition to manpower required for break down maintenance.

### e. Rescue Operation

Manpower employed for break down maintenance indicated above shall be utilized for rescue operation also.

## 8.3 Definition of "Call Back" and Penalty:

When a call is given to particular elevator and is not responded by it as intended in the control system, then this will be treated as one call back. If this break down call is not attended within specified time, the number of call back will get added by one more for lapses of each specified time interval, e.g. in case a break down complaint is reported to the tenderer at 14 hours and tenderer makes the elevator operational as intended at 2000 hours then number of call backs to be considered for this shall be two numbers if type of break down is of minor nature and however, number of call back shall be one if the nature of break down is of major nature. The tenderer shall note that the permissible guaranteed call back for the elevator is exceeded 1 No. per month, If the number of call back of particular elevator is exceeded the guaranteed call back for any month, the penalty shall be imposed and recovery from the bills shall be made accordingly. Penalty shall be imposed and recovery will be made from the running bills in case the routine maintenance, servicing and break down maintenance also which are not carried out as per tender specification in the month. The penalty for not/late attending the routine/break down maintenance / service calls shall be at Rs. 3000/- for each additional call back.



8.4 Other Conditions:

- 8.4.1 Co-ordination with Inspector of Lifts for inspection of elevator during the period of contract as necessary.
- 8.4.2 The tenderer shall ensure smooth functioning of elevators. The shutdown of elevators without any valid and genuine reason and without the approval of Project Manager in charge shall not be permitted. All motors and other allied accessories shall also be subjected to necessary preventive maintenance check by the tenderer along with all mechanical equipment.
- 8.4.3 Offer shall include the comprehensive maintenance of all machineries & equipment involved (electrical & mechanical items both) of the elevator.
- 8.4.4 A log card/sheet for the elevator shall be maintained in the machine room wherein all details of break down and preventive maintenance shall be clearly and legibly logged in and the signature of Project Manager in Charge or his authorized representative shall be obtained. The checklist in Annexure IXB shall also be submitted.
- 8.4.5 During any special function/program at Mall, a skilled mechanic shall be deputed at site to attend to any call back. Such function/program will be informed to the tenderer with sufficient time in advance.
- 8.4.6 Security personnel(s) and other maintenance staff of client shall be trained for rescuing of trapped passengers of the elevator from car by the tenderer from time to time.
- 8.4.7 Before effecting regular servicing and maintenance of lift under contract, advance intimation shall be given to concerned Project Manager in Charge. Servicing and routine maintenance done without information is liable to be treated as null and void and charges towards the same shall not be paid.
- 8.4.8 The information required in Annexure XIII shall also be submitted in Technical Bid.
- 8.4.9 The organization chart with defined responsibility of the individuals along with their office telephone numbers, pager Nos. residential telephone numbers, if any, shall be furnished along with the bid and updated by the bidder.
- 8.4.10 The tenderer shall indicate in their offer, the details of telephone numbers, which shall be available, for 24 hours on all the days. Moreover tenderer shall ensure that the break down calls on holidays and after office hours are attended as indicated in the tender specification.
- 8.4.11 All scraps/dismantled parts of elevators generated during any maintenance work shall be property of the tender and shall be properly cleaned.
- 8.4.12 The tenderer shall provide necessary uniforms, safety protection gears, tools as required by the nature of work to maintenance personnel.

- 8.4.13 The tenderer shall also suggest ways and means to improve safety & efficiency of the functioning of the elevator during the course of maintenance contract. Capacity plate and safety precaution charts shall be provided as and when required during the course of maintenance without any extra cost.
- 8.4.14 The tenderer shall co-ordinate with Inspector of Lifts for inspection of elevator as and when desired by inspector of lifts during the period of contract for the elevator covered under contract and defects. If any pointed out by him shall be attended to immediately at no extra cost.
- 8.4.15 The comprehensive maintenance is reckoned from the date after the free maintenance period, which shall be intimated, in writing.
- 8.4.16 Rates quoted for comprehensive maintenance shall be paid once in three months after satisfactory completion of the same and on production of his bill in quadruplicate to Project Manager- in-charge.
- 8.4.17 The permissible call back for the elevator shall not exceed one number per month.

**NOTE:**

All the information and details sought above shall be furnished in Technical bid by tenderer.

**The above maintenance specifications and penalty is applicable during the free maintenance period also.**

The rate quoted for comprehensive maintenance shall be inclusive of all costs towards labour, spare parts, tools & tackles, hire charges, materials, all taxes, etc. & Should include following as well.

Responsibility for cleaning & maintaining lift m/c room regularly

Responsibility for supervision of pit cleaning

Motor coupling guarding as per IS.

Guarding for all other moving parts like rope wheel

Machine guarding as per norms

Working at heights & safety during construction/ Installation/ Commissioning.

ANNEXURE – I

SPECIFIC REQUIREMENT FOR ELEVATOR

DATA SHEET - GENERAL DETAILS

1. OPERATING AND INDICATING DEVICES IN THE CAR

Sr. No.	Description		Specification requirements	Confirmation by Bidder
1.01	Push buttons for each landing	:	Yes	
1.02	Nonstop push button	:	Yes (with attendant)	
1.03	Door open push button	:	Yes	
1.04	Door close push button	:	Yes	
1.05	Alarm push button	:	Yes	
1.06	Emergency stop push button	:	Yes	
1.07	Key operated selector for attendant operation	:	Yes	
1.08	Up direction travel	:	Yes	
1.09	Down direction travel	:	Yes	
1.10	Floor position indicator	:	Digital display	
1.11	Over load indication	:	Yes (sound & Illumination)	
1.12	Emergency light and alarm	:	Battery operated alarm bell / hooting and emergency light with rechargeable battery and automatic battery charger.	
1.13	Emergency exit	:	As per Lift Rules / Acts / IS.	

2.0. OPERATING AND INDICATING DEVICES IN EACH LANDING

Sr. No.	Description		Specification requirements	Confirmation by Bidder
2.01	Up push & registration button	:	Yes	
2.02	Down push & registration button	:	Yes	
2.03	Car position indicator	:	Digital display	
2.04	Location of the position indicator	:	Top side of the door	
2.05	Up direction level	:	Yes (bell and illumination)	
2.06	Down direction level	:	Yes (bell and illumination).	

### 3.0 OPERATING DEVICES ON THE TOP OF THE CAR (YES / NO)

Sr. No.	Description		Specification requirements	Confirmation by Bidder
3.01	Slow speed operating selector	:	Yes	
3.02	Up push button	:	Yes	
3.03	Down push button	:	Yes	
3.04	Stop push button	:	Yes	
3.05	240V Single phase receptacles	:	Yes	

### 4.0 CAR AND LANDING DOORS

Sr. No.	Description		Specification requirements	Confirmation by Bidder
4.01	Type of door for car	:	Center opening sliding/type of door with auto operation with variable frequency door operator & full curtain infrared door safety.	
4.02	Type of door for landing	:	With necessary interlock as per IS	
4.03	Color shade for outside landing doors	:	As per specification	
4.04	Color shade for car doors	:	As per specification	
4.05	Material of the doors	:	Stainless Steel Hairline finish	
4.06	Size of the door	:	As per IS 14665	
4.07	Electronic door detector	:	Yes	
4.08	V.F.door operator	:	Yes	

### 5.0 MISCELLANEOUS DETAILS

Sr. No.	Description		Specification requirements	Confirmation by Bidder
5.01	Car lighting	:	LED (4-11W) lamp and fittings.	
5.02	Car ventilation fan with switch with auto cut off	:	Yes	
5.03	Provision for door opening at each landing in case of emergency	:	Yes	
5.04	Fireman switch	:	Yes	

5.05	All face plates	:	Stainless Steel	
5.06	Intercom telephone set	:	Yes	
5.07	Provision for Public Address System	:	Yes	
5.08	Hand rail	:	Yes	
5.09	Operating device & indication	:	Illumination type	
5.10	Flooring details	:	As per specification	
5.11	Facial plates	:	Yes	
5.12	Digital Hall position indicators	:	Micro-push touch button & luminous Type.	
5.13	Buttons	:	Micro-push touch button & luminous Type.	
5.14	Painting	:	Epoxy paint	
5.15	Voice Guidance System	:	Yes	
5.16	Provision to keep status monitoring panel at remote control room (security)	:	Yes	

## 6.00 SPECIAL REQUIREMENTS

415 Volts A.C. 3-phase 50 cycles/sec. 4-wire systems 63 Amps and two separate earth points will only be provided near Control Panel by the employer. Other requirements are to be provided by the Contractor which includes providing and fixing of wall / floor mounted main power control panel for lift comprising MCCB/MCBs, ELCBs, Indicator lamps, Voltmeter (0-500V) 15 Amps, socket and 15 A switches along with lighting of lift shaft etc.

## ANNEXURE I-A

### SPECIFIC REQUIREMENTS FOR ELEVATOR

- 1.1 1 No. of each, ACVVVF control, **Simplex** full collective and selective type, as per details in the enclosed drawing no. \_\_\_\_\_ specify arch. Drg. nos.)  
Machine Room less Elevators

Sr. No.	Location	Type	No. of Persons	Capacity (KGs)	Speed (m/s)	No. of Stops
1.	MPT Mormugao	Passenger	8	544	1.00	4
2.	MPT Mormugao	Passenger	8	544	1.00	4

Shaft size and total travel will be as per approved architectural drawing.

#### 1.2 Operating Conditions:-

- Climatic conditions : The climate is tropical, highly humid and heavy rainfall conducive to rust and fungus growth. Besides being close to sea coast environment is laden with salt spray.
- Ambient temperature : 45<sup>0</sup>C. Maximum, 15<sup>0</sup>C. Minimum.
- Relative Humidity : As high as 95% during large parts of any year.

#### SALIENT PERFORMANCE REQUIREMENT:-

Sr. No.	Description		Specification requirements	Confirmation by Bidder
1.00	GENERAL			
1.01.	Lift category	:	Passenger Elevators	
1.02.	Quantity	:	2nos	
1.03.	Installation	:	Indoor	
2.00	LIFT PARTICULARS			
2.01	Rated load	:	544 kgs /08 persons	
2.02	Rated speed	:	1.0 meters per second	
2.03	Floors entrances served	:	4 nos	
2.04	Floor elevations served	:	4 nos	
2.05	Leveling accuracy (not greater than)	:	+/- 5 mm. (maximum)	
2.06	Type of doors in the car	:	Horizontal and centrally openable in both sides by VVVF door operator.	
2.07	Size of the car (inside dim.) and car enclosure	:	As per I.S. Stainless Steel 18 Gauge.	
2.08	Car inside size of the lift	:	As above	

2.09	Clear opening provided by the car and hoist way entrance doors	:	As per IS:14665	
3.00	LIFT CONTROL OPERATION:			
3.01	Type of control	:	AC variable voltage and variable frequency (ACVVVF) drives with microprocessor based control.	
3.02	Type of operation	:	Simplex full collective and selective with / without attendant.	
3.03	Remote monitoring	.	Provision to keep status monitoring panel at remote control room (security)	
4	Door Opening		Door opening shall be “ as per IS 14665” which states for given capacity and dimension, door opening entrance to be 800 mm. All details shall be as per IS 14665 specification.	

ANNEXURE – II  
SPECIFIC REQUIREMENT SHEET OF CONTROL PANEL  
DATA SHEET

Sr. No.	Description		Specification requirements	Confirmation by Bidder
1.01	Designation	:	Control panels / cubicles / cabinet for elevators – power & control.	
1.02	Location	:	Indoor	
1.03	Design ambient temperature	:	45 Deg. C	
1.04	Type of mounting (floor/pedestal/wall)	:	Vendor to decide.	
1.05	Cable entry 1. Top / bottom 2. Glands / Conduits	:	Top Glands	
1.06	Painting: a) Color finish outside b) Color finish inside c) Paint required	:	Shade 631 of IS:5 White Synthetic Enamel	
1.07	Control scheme & Bill of Material	:	To be furnished by the Bidder.	
2.01	Supply voltage for power devices motor drives etc.	:	415V, 3-phase, 3-wire solidly grounded 50 Hz.	
3.01	Starter type	:	VVVF	
3.02	Contactora rated duty	:	As required.	



ANNEXURE – III  
SPECIFIC REQUIREMENT SHEET OF INDUCTION MOTOR  
DATA SHEET

Sr. No.	Description		Specification requirements	Confirmation by Bidder
1.	Type of Motor	:	Permanent Magnet Gearless – 3 Phase	
2.	KW rating	:	Vendor to confirm	
3.	Type of starting	:	DOL	
4.	Service for which the motor is intended	:	For operation of elevator.	
5.	Voltage	:	415 V	
6.	Class of insulation	:	Class – “F”	
7.	Frequency	:	50 Hz $\pm$ 5%	
8.	Speed	:	To suit lift requirements.	
9.	Phases	:	3 (three).	
10.	Type of connection	:	Delta	
11.	Installation	:	Indoor	
12.	Type of enclosures: Motor Power cable terminal box	:	SPDP IP-21	
13.	Cable size	:	To suit rating of motor with adequate current rating.	
	Type of cable	:	1100V grade Copper conductor PVC insulated and sheathed armored cable	
14.	Type of cooling	:	IC-01 (IS:6362)	
15.	Duty	:	Intermittent loading S4	
16.	Mounting	:	Vendor to confirm.	
17.	Vibration tests	:	Required and shall be conducted as per IS: 4729.	
18.	Type test	:	Required and shall be conducted in the presence of Project Manager. Alternatively Type test certificate shall be furnished.	
	Acceptance test/ routine tests	:	Required and shall be conducted in the presence of Project Manager. Routine alternatively test certificate shall be furnished.	
19.	Special requirements:			
	Bearings Epoxy painting Vibration peak to peak Amplitude. Coupling	:	Ball/roller (to suit motor design) Required. As per IS:4729 Direct As applicable.	

Sr. No.	Description	Specification requirements	Confirmation by Bidder
	Starting duty Critical speed Inspection plus for air gap measurement. viii) Reverse rotation.	: As required. : Not Required. : Required.	
20.	Design ambient temperature	: 45 Deg. C	

ANNEXURE – IV

**SCHEDULE FOR SUBMISSION OF VARIOUS DOCUMENTS**

The Contractor shall submit various documents including drawings for review by the Project Manager according to the following Schedule for approval on Award of Work.

Sr. No.	Description	Submission for Approval after the date of issue of Work Order.
1.	Detailed drawings of Equipment Layout and clearance.	
2.	A foundation drawing showing all loading conditions.	
3.	Detailed sectional drawings showing all details.	
4.	Instruction Manual.	
5.	Reports on various tests at shop and material test reports.	
6.	Reports on various tests at Site.	
7.	Other necessary drawings and data.	
8.	Start of manufacture.	
9.	Complete manufacture.	
10.	Testing at manufacturer's works.	
11.	Shipment / transportation.	
12.	Start / complete erection at Site.	
13.	Final check up and commissioning.	

14.	Submission of "As-built" drawing.	

## ANNEXURE – V

### MONTHLY ROUTINE MAINTENANCE

As a minimum following inspection and routine maintenance of following components shall be carried out on an Elevator or Escalator:-

1. Car safety shoes.
2. Stop and other push buttons, alarm etc.
3. Leveling of cars at each floor in both directions.
4. Car registration and all landing floors and its intended response.
5. Jerk free starting and stopping of elevator.
6. Free movements of car without vibrating while travelling in both directions.
7. Operation of power operated doors for smooth operation.
8. Oiling and greasing of parts of elevators as necessary.
9. VVVF control (microprocessor).
10. Cleaning of car sills, sills at all landings, car top and interior parts.
11. Inspection of machine equipment and attending to maintenance for any unusual occurrence.
12. Checking of all indicating lamps at landings and in the car including direction indicators and its replacements.
13. Checking of car lighting, parts, fans and other in the car cage etc.
14. Duplex control operation.
15. Automatic Rescue Device (ARD) batteries.
16. Checking of car trailing cables, wire ropes and its fixing arrangements.

Note: All defects / discrepancies shall be rectified at the time of routine maintenance. Date of routine maintenance for the elevator shall be furnished after award of contract.

## ANNEXURE –VI SERVICING

- 1) As a minimum Half-yearly servicing shall be carried out after detailed inspection on following components of elevator.
  - i. All components including doors pertaining to entrance not covered in routine maintenance.
  - ii. Car Equipment not covered in the routine maintenance.
  - iii. Door operator.
  - iv. Machine.
  - v. Controller and selectors.
  - vi. Emergency door opening at all landings.
  - vii. Hall call and car call buttons/signals.
  - viii. All points covered under routine maintenance.
- 2) As a minimum annual servicing shall be carried out after detailed inspection on following components of elevator.
  - a) Machine equipment not covered in routine maintenance and half-yearly servicing.
  - b) Locks not covered in routine maintenance.
  - c) Ropes.
  - d) Pit equipment and pit cleaning.
  - e) Governor.
  - f) Fireman switch/Duplex control system.
  - g) Hoist way equipments, guides, etc.
- III.) Other servicing
  - a. Responsibility for cleaning & maintaining lift m/c room regularly
  - b. Responsibility for supervision of pit cleaning
  - c. Motor coupling guarding as per IS.
  - d. Guarding for all other moving parts like rope wheel

- e. Machine guarding as per norms
- f. Working at heights & safety during construction / Installation / Commissioning.
- g. All points covered under routine maintenance.

**ANNEXURE –VII  
MINOR BREAK- DOWN**

The following shall be considered as minor breakdowns.

- a) Car & landing door operation ineffective for automatic doors.
- b) Push buttons in COP not working.
- c) Calls from COP and from any of landings not effective.
- d) Leveling during up & down directions is in excess of allowable limits.
- e) Any other defects not included in major break down resulting in non-operation of elevator and safe situation.

**ANNEXURE –VIII  
MAJOR BREAK- DOWN**

The following shall be considered as major break down.

- 1. Defects in ropes.
- 2. Defects in travelling cables.
- 3. Burning of motor.
- 4. Failure of any major component of controller/selector/ elevator machines.

**ANNEXURE –IX**

**INFORMATION TO BE SUBMITTED BY THE SUCCESSFUL TENDERER**

- 1. Organization chart pertaining to maintenance of equipment.
- 2. Number of supervisors and their qualification and experience to be deployed for this work.
- 3. No. of persons with their qualifications and experience to be deployed for:
  - 1. Routine maintenance.
  - 2. Servicing.
  - 3. Break-down maintenance

(Indicate the number of persons to be deputed to the premises on round the clock basis.)

4. Transport arrangement for:
  - a) Routine maintenance.
  - b) Servicing.
  - c) Breakdown maintenance.
  
5. Communication facility to be provided for:
  - a) Routine maintenance.
  - b) Servicing.
  - c) Breakdown maintenance.
  
6. List of spares to be kept in the premises for immediate use.
  
7. Address and telephone numbers of service center on round the clock basis.
  
8. Guaranteed maximum number of call backs to be permitted for elevator per month.



## ANNEXURE –X

### SCHEDULE OF DRAWINGS

Tender drawings issued with this document are for reference only. “Working” drawings will be furnished to the contractor during the progress of work, as further data becomes available from the consultants.

Working drawings shall be prepared by successful contractor based on construction Drawings that will be issued by the Project Manager-in-charge. These shall form part of the contract unless otherwise specified. The drawings are intended to include every requisite and necessary for proper and entire completion of the work and shall be read in conjunction with the relevant specification and codes of practice.

### SCHEDULE FOR SUPPLY & INSTALLATION

Sr. No.	Description	Estimated period
1	LOI	0 Days
2	Shop Drawings	15-21 Days
3	Material supply	On approval of shop Drawings ___ days
4	Installation, Testing & Commissioning	After supply ___ days
5	Lift Inspection certificate	On commissioning ___ days
	Total time schedule	6 months

### LIST OF MAKES

Sr. No.	Description	Our Requirement	Make offered by Vendor
1.0	LIFT/ELEVATOR	OTIS / KONE / SCHNEIDER/ THYSSEN KRUPP/ JOHNSON/ SCHINDLER/ HYUNDAI	



An ISO 9001 : 2008 Port  
ISPS CODE Compliant

**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2015**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour.**

**xii. CHECK LIST FOR SUBMISSION OF TENDER**

Sr. No.	Particulars	Yes	No
1	Have you purchased / downloaded the tender document from internet for submission by your firm?		
2	Have you submitted cost of tender document in the form of DD or cash receipt, in case you have downloaded from internet?		
3	Have you submitted the tender in the Mormugao Port Trust's Form?		
4	Have you furnished full postal address, telephone number/Fax number, email?		
5	Have you kept your offer valid for 180 days as specified?		
6	Have you submitted Demand Draft pertaining to Earnest Money? i. DD No. _____ dated drawn on bank _____ payable at _____ amounting to Rs.45,000/-.		
7	Have you submitted documents pertaining to status/ contribution of the firm, partnership deed and power of attorney?		
8	Have you submitted Audited Statement of Accounts for last three (3) years ending 31.03.2015?		
9	Have you submitted Copy of current Income Tax Return Acknowledgment?		
10	Have you submitted document in support of the Technical System Qualifying Criteria (Eligibility Criteria)?		
11	Have you submitted list of works in progress along with copy of work orders?		
12	Have you submitted Bar Chart/CPM chart?		
13	Have you submitted Performa 1 to 4?		

Sr. No.	Particulars	Yes	No
14	Have you submitted EPF Number issued by Provident Fund Department?		
15	Have you submitted ESI Number issued by Employees State Insurance Department?		
16	Have you submitted Permanent Account Number issued by Income Tax Department?		
17	Have you Signed and seal on every page of tender document submitted?		
18	Have you attested all the corrections?		
19	Have you submitted Financial Bid in separate Cover?		

**NOTE:**

The above Checklist is not exhaustive. The tenderer must go through carefully the entire Booklet and submit the tender compliance of all the conditions/ provisions instructions mentioned therein irrespective of the fact that they have been highlighted in the Checklist or not.

Signature \_\_\_\_\_

Name of the Tenderer

Seal:

Date:



**MORMUGAO PORT TRUST**  
**ENGINEERING (CIVIL) DEPARTMENT**

**TENDER No. CE/28R1/2016**

**Name of Work: Supply, Installation, Testing and Commissioning of Two Numbers of Elevators For Cruise Terminal Building at Mormugao Harbour..**

**xiii. VENDOR REGISTRATION FORM**

1. Name of the Organization : \_\_\_\_\_
2. Address (In Detail) : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Telephone Number : \_\_\_\_\_
4. E-Mail Id : \_\_\_\_\_
5. Permanent Account Number (PAN) : \_\_\_\_\_
6. Bank Name : \_\_\_\_\_
7. Bank Branch Address ( In Detail) : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Bank Branch Code : \_\_\_\_\_
9. Bank Account Number : \_\_\_\_\_
10. Bank Account Type : \_\_\_\_\_
11. Magnetic Ink Character Recognizer (MICR) : \_\_\_\_\_
12. Tax Identification Number (TIN) : \_\_\_\_\_
13. Service Tax Registration Number : \_\_\_\_\_

- 
14. Service Tax Registration Code : \_\_\_\_\_
15. CST Registration Number : \_\_\_\_\_
16. Employee Provident Fund (EPF)  
Registration Number : \_\_\_\_\_
17. Employee State Insurance Scheme  
(ESIS) Registration Number : \_\_\_\_\_
- 
- 
18. IFSC Code : \_\_\_\_\_