

RAJIV GANDHI CENTRE FOR BIO-TECHNOLOGY
POOJAPPURA, THIRUVANANTHAPURAM

**TENDER FOR SUPPLY, INSTALLATION, TESTING
& COMMISSIONING
OF ELEVATORS FOR
HOSTEL BLOCK
AKKULAM.**

Tender No:

PART – I

**CONDITIONS OF CONTRACT,
SPECIFICATIONS WITH GENERAL PREAMBLE**

ARCHITECTS:

IYER & MAHESH

Registered Architects

Narayana Towers

Vazhuthacaud

Thiruvananthapuram – 695 014

Phone: 0471 – 2325543 / 2325527

Email: maresh@iyermahesh.com

Thiruvananthapuram

R G C B

Sign & Seal of Contractor

CONTENTS

Sl. No:	Items	Pages
1	Notice Inviting Tender	1
2	Form of Tender	3
3	Articles of Agreement	5
4	General Instructions to Tenderers	8
5	Special Conditions of Contract	14
6	Safety Code	18
7	Declaration by Tenderer	20
8	General Conditions of Contract	21
9	Technical Specification for Elevators	33
10	Electrical Equipment & Wiring Installation	38
11	Special Conditions for this Contract	39
12	Specification Data Sheet – Passenger Elevators	41
13	Specification Data Sheet – Freight Elevators	44
14	General Preamble	47
15	Drawings	

Sign & Seal of Contractor

1. NOTICE INVITING TENDER

To

.....
.....
.....

TENDER FOR SITC OF 2 NOS. PASSENGER ELEVATORS AND 1 NO. FREIGHT ELEVATOR FOR R.G.C.B HOSTEL BLOCK AT AAKULAM

Dear Sir,

Firm, Sealed Competitive tenders are invited for the above work from eligible manufacturers & Suppliers of Elevators as per clause 16.7 of guide lines of CPWD works manual 2014. The details are given below.

The tender forms can be had from the office of the undersigned and your tender offer duly filled in signed and sealed in two covers should be addressed to The Controller of Administration Rajiv Gandhi Centre for Bio Technology, Poojappura, Thycaud P O, so as to reach him not later than 3PM 14 February 2019.

- | | | |
|----|---|--|
| 1. | Name of work | : Supply Installation Testing and Commissioning of
2 Nos. Passengers Elevators and
1No. Freight Elevator for RGCB Hostel Block
at Akkulam in Thiruvananthapuram District. |
| 2. | Estimated cost of work | : Rs. 79,00,000.00 |
| 3. | Earnest money to be deposited | : Rs. 2,00,000/- as Demand Draft from Any
Nationalised /Scheduled Bank. |
| 4. | Period of completion | : Three (3) Months |
| 5. | Cost of tender form
Original with drawings | : Rs. 1,000.00 + GST 18% |
| 6. | Time & Date of issue of Tender | : From 10 AM on 23 January 2019
Till 4 PM on 04 February 2019. |

7. Time & Date of Pre-Bid Meeting : 11 AM on 05 February 2019.
At RGCB office Poojapura.
8. Time & Last Date of submission of tender : 3PM on 14 February 2019.
at the office of Controller of administration
RGCB
8. Time & Date of opening of Tender : 3.30 PM on 14 February 2019.
9. Firm period of tender : Sixty (60) days.
10. Defects liability period : Twenty four (24) Months

IMPORTANT: The Tender should be accompanied by Earnest Money Deposit as stipulated.

If the Tenderer wishes to include any conditions he may submit the same along with EMD in a separate sealed cover super scribed Part I.

Part –I : Cover containing EMD with covering letter & Conditions if any along with Signed and sealed copy of tender documents part -1

Part –II : Priced Tender Documents part -2.

The Part I cover only will be opened in the presence of Tenderers or their Authorised Representatives who shall be in a position to clarify all the conditions stipulated by them. The Owner will thereafter decide which of the conditions if any have to be accepted uniformly for all the Tenders and this will be intimated in writing to the Tenderers.

The Tenderers on receipt of the above letter from the owner can in lieu quote a percentage above or below their tendered amount already submitted in a separate sealed cover within the stipulated date super scribed as PART III.

The sealed cover Part II containing Priced Tender Documents already submitted before the stipulated time will be opened along with the Part III cover on stipulated date in the presence of the Contractors (or their authorized representatives) who are present.

Please note that this letter will form part of the contract document and that the contents of this letter shall be supplemental to the conditions in the tender and not in derogation thereof except to the extent specifically provided herein.

Yours faithfully,

2. FORM OF TENDER

To

Dear Sir,

Having examined the drawings, specifications, designs and Bill of Quantities relating to the works specified in the Memorandum hereinafter set out and having examined the site of the works specified in the said Memorandum and having acquired the requisite information relating thereto as affecting the tender, I/We hereby offer to execute the works specified in the said Memorandum mentioned within the time specified in the said Memorandum at the rates mentioned in the attached Bill of Quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in conditions of tender, the Articles of Agreement, Special conditions, Bill of Quantities and Conditions of Contract and with such materials as are provided for, by, and in all other respects in accordance with such conditions so far as they may be applicable.

MEMORANDUM

- | | | | |
|-----|---|---|--|
| (a) | Description of work | : | Supply Installation Testing and Commissioning of
2 Nos. Passengers Elevators and
1No. Freight Elevator for RGCB Hostel Block
at Akkulam in Thiruvananthapuram District. |
| (b) | Estimated Probable Amount of Contract | : | Rs. 79,00,000/- |
| (c) | Earnest Money | : | Rs. 2,00,000/- |
| (d) | Security Deposit percentage to be deducted from bills | : | 2.5% from each RA Bill as well as Final Bill |
| (e) | Time allowed for completion of the works from fifteenth day after the date of written order to commence work. | : | Three Months (3 Months) |

2. Should this tender be accepted, I/We hereby agree to abide by and fulfill the terms and provision of the said conditions of contract annexed hereto so far as they may be applicable or in default thereof to forfeit and pay to the owner, the amount mentioned in said conditions.
3. I/We have deposited a sum of Rs. 2,00,000/- as Earnest money with the owner which amount is not to bear any interest. Should I/We fail to execute the Contract Agreement when called upon to do so, I/We do hereby agree that this sum shall be forfeited by me/us to the owner.
4. It is also hereby specifically agreed that this tender will remain firm for a period of 60 days from the date of opening of Tender.
5. Our Bankers are: (with full address)
(I)

(II)

The names of partners of our firm are :

- (I)

(II)

Name of the partner of the firm

Authorized to sign

or

Name of person having Power of

Attorney to sign the contract

(Certified true copy of the Power
of Attorney should be attached)

yours faithfully,

(Signature and address of witnesses)

Signature of Contractor

(I)

(II)

3. ARTICLES OF AGREEMENT

ARTICLES OF AGREEMENT made the..... Day ofbetween the
..... (Hereinafter called “the Owner”) of the one part
and

.....
..... (Hereinafter called “the Contractor”) of the other part.

WHEREAS the Owner is desirous of carrying out Works for the owner and
has caused drawings & specification describing the works to be done to be prepared by M/s.
Iyer & Mahesh its Architect.

AND WHEREAS the said Drawings numbered
Including, the specifications and the Bill of Quantities have been signed by or on behalf of the
parties hereto.

AND WHEREAS the Contractor has agreed to execute upon and subject to the Conditions set
forth herein and to the Conditions set forth in the Special Conditions and in the Bill of
Quantities and Conditions of Contract (all of which are collectively hereinafter referred to as “
the said Conditions”) the works shown upon the said drawings and/or described in the said
specification and included in the Bill of Quantities at the respective rates therein set forth
amounting to the sum as therein arrived at or such other sum as shall become payable there
under (herein after referred to as “the said contract amount).

NOW IT IS HEREBY AGREED AS FOLLOWS

1. In consideration of the said Contract Amount to be paid at the times and in the manner
set forth in the said Conditions, the Contractor shall upon and subject to the said
Conditions execute and complete the work shown upon the said Drawings and described
in the said Specifications and the Bill of Quantities at the rates agreed in the Schedule.
2. The owner shall pay the contractor the said contract amount or such other sum as shall
become payable, at the time and in the manner specified in the said conditions.
3. “The term ‘Architect’ in the said conditions shall mean M/s Iyer & Mahesh, Registered
Architect, 15/1989 (9), Narayana Towers, Vazhuthacaud, Thiruvananthapuram –695
014 for the purpose of architectural planning and designing etc of the building /
structures to be constructed, supervision of works, preparing and recommending bills
etc under this contract. In the event of their ceasing to be Architects for the work
mentioned in this contract for whatever reason such other person or persons as shall be
nominated by the Owner for that purpose will function as ‘Architects’.
4. The said Conditions and Appendix thereto shall be read and construed as forming part of
the Agreement, and the parties hereto shall respectively abide by, submit themselves to
the said conditions and perform the agreements on their part respectively in the said
conditions contained.

5. The plans, Agreement and Documents mentioned herein shall form the basis of this contract.
6. This contract is to carry out the work in respect of the entire S I T C of two numbers passenger elevators and one number freight elevator to be paid for according to actual measured quantities at the rates contained in the Schedule of Rates and Probable quantities or as provided in the said conditions.
7. The Owner reserves to itself the right of altering the Drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this contract.
8. Time shall be considered as the essence of this Contract and the Contractor hereby agrees to commence the work soon after the site is handed over to him or agreement executed or from twenty first day after the date of issue of formal work order as provided for in the said conditions whichever is later and to complete the entire work within 3 Months subject nevertheless to the provisions for extension of time.
9. All payments by the Owner under this Contract will be made only at Thiruvananthapuram.
10. Arbitration shall not be a means to settle any dispute arising out or in any way connected with this Agreement.
11. All disputes arising out of or in any way connected with this Agreement shall be deemed to have arisen at Thiruvananthapuram and only Courts in Thiruvananthapuram shall have jurisdiction to determine the same.
12. That the several parts of this contract have been read by the Contractor and **fully understood by the Contractor.**

IN WITNESS WHEREOF THE Owner and the Contractors have set their respective hands to these presents and two duplicates hereof the day and year first hereinabove written

If the Contractor is a partnership or an individual

IN WITNESS WHEREOF the Owner has set its hands to these presents through its duly authorized official and the contractor has caused its common seal to be affixed hereunto and the said two duplicates/ has caused these presents and the said two duplicates hereof to be executed on its behalf, the day and year

If the Contractor is a Company

Signature Clause

SIGNED & DELIVERED by the owner by the
hand of Sri.....

.....
(name & designation).....
in the presence of (1).....

.....
Address.....

(2).....
Address.....

SIGNED & DELIVERED by contract.....
..... in the presence of
(1).....
Address.....

(2).....
Address.....

Witness

THE COMMON SEAL OF.....
was hereunto affixed pursuant to the
resolutions passed by its Board of Directors
at the meeting held on.....
in the presence of

(1).....

(2).....

Directors who have signed these presents in
Token thereof in the presence of

(1).....

(2).....

If the party is a partnership
firm or an individual should
be signed by all or on
behalf of all the partners.

If the contractor signs
under its common seal the
Signature Clause should tally
with the sealing clause in the
Articles of Association

SIGNED & DELIVERED by the Contractor
by the hand of Sri.....
and duly constituted Attorney

If the Contractor is
Signing by the hand of
Power of Attorney, whether a
Company or individual

4. GENERAL INSTRUCTIONS TO TENDERERS

1. Sealed Tenders in separate covers marked I & II, Cover-I containing EMD, Conditions and Sealed and Signed copy of Tender Document PART-1 and complete set of drawings and cover-II containing the priced tender documents PART-2 should be addressed to Controller of Administration , Rajiv Gandhi Centre for Bio Technology Poojappura, Thycaud P O , Thiruvananthapuram – 695 014.
2. No tender will be accepted after 3 PM on 14 February 2019 under any circumstances whatsoever.
- 3(a). The cover-I of Tenders will be opened at 3.30 P.M on 14 February 2019 at his office by Controller of Administration OR any other officer designated for this purpose by him in the presence of the ARCHITECT and the tenderers or their representatives, should they choose to be present.

The Cover II of the tender will be opened as specified in the invitation to Bid letter on page 2.

- (b) Tenders shall remain open for acceptance by the owner for a period of minimum 30 DAYS from the date of opening the PART –II of the tender which period may be extended by mutual agreement and the tenderer shall not cancel or withdraw the tender during this period.
- (c) The tenderer must use only forms issued by the owner to fill in the rates
- 4(a) The tender form must be filled in ENGLISH and all entries must be made by hand and written in INK. If any of the documents is missing or unsigned the tender may be considered invalid by the owner at its discretion.
- (b) Rates should be quoted both in figures and words in columns specified. All erasures and alterations made while filling the tender must be attested by initials of the tenderer. Overwriting of figures is not permitted and failure to comply with either of these conditions will render the tender void at the Owner's option. No advice of any change in rate or conditions after the opening of the tender will be entertained.
- (c) Each of the tender documents should be signed and sealed on all pages by the person or persons submitting the tender in token of his/their having acquainted himself/ themselves with the General Conditions of Contract, Specifications, and Special Conditions etc. as lay down. Tenders with any of the documents not signed are liable to be rejected.

- (d) The tender submitted on behalf of a firm shall be signed by all the partners of the firm or by a partner who has the necessary authority on behalf of the firm to enter into the proposed contract. Otherwise the tender may be rejected by the owner.
5. The owner does not bind itself to accept, the lowest or any tender and reserves to itself the right to accept or reject any or all the tenders, either in whole or in part, without assigning any reasons for doing so. The Owner Shall be at liberty to shelve the whole process of the tender without assigning any reason thereof.
6. "Intending tenderers shall pay as Earnest Money Deposit a sum of Rs.2,00,000/- by demand draft issued by a Nationalized Bank/Scheduled Bank drawn in favour of Controller of Administration Rajiv Gandhi Centre for Biotechnology as Demand Draft shall be directly enclosed in Cover No. I. A tender which is not accompanied by such receipt of deposit as Demand Draft or Deposit at Call Receipt as Earnest Money, will not be considered. The Earnest Money will be refunded to the tenderer if his tender is not accepted but without any interest" within a period of 90 days.
7. On receipt of intimation from the Owner of the acceptance of his/their tender, the successful tenderer shall within twenty days sign an Agreement in accordance with the Draft Agreement.
8. (A) **PERFORMANCE GUARANTEE**
- 8.01 The successful Tenderer, hereafter referred to as the contractor, shall deposit an amount equal to 5% of the tendered and accepted value of the work (without limit) as performance guarantee in one of the following forms:
- (i) Government Securities.
 - (ii) Fixed Deposit Receipt (FDR) of a Scheduled Bank
 - (iii) An irrevocable bank guarantee bond of any scheduled bank or the State Bank of India in the prescribed form given in Annexure.
- 8.02 The time allowed for submission of the performance guarantee by the contractor shall be decided by the NIT approving authority for a period ranging from 4 to 15 days of issue of the letter of acceptance, depending upon the magnitude and/or urgency of the work. **This period can be further extended at the written request of the contractor by the Engineer-in-charge for a maximum period ranging from 1 to 15 days with late fee @ 0.1% per day, of performance guarantee amount.** Such time period may be mentioned in the schedule F while finalizing the NIT. A sample copy of the letter of acceptance to the contractor for submission of the performance guarantee is given in Annexure – 1 of Section 20. (Modified vide OM DG/MAN/261 dated 18.01.2013)
- 8.03 The date of start of the work may accordingly be fixed reckoning it after 7 to 30 days from the date of issue of letter of acceptance. (Modified vide OM DG/MAN/261 dated 18.01.2013)

8.04 The letter of commencement of work shall be issued to the contractor only after he submits the performance guarantee in an acceptable form. A sample copy of this letter is shown in Annexure –II of section 20.

8.05 **However, in case of contracts involving maintenance of building and services/ other work after construction of same building and services/other work beyond defect liability period, 50% of Performance Guarantee shall be retained as Security Deposit. The same shall be returned year wise proportionately. The validity period of PG shall be extended accordingly.** (Added vide OM No. DG/MAN/285 dt. 21.8.2013 and modified vide OM/DG/MAN/291 dt. 1.10.2013)

The deposit towards Performance Guarantee shall be made on or before 10 (Ten) Days of the issue of the letter of acceptance.

The Performance Guarantee shall be refunded to the contractor soon after completion of the work on issuance of completion certificate and 60 (Sixty) days thereafter.

(B) SECURITY DEPOSIT

Security Deposit shall be collected by deduction of 2.5% of the Gross Amount of Each Running Bill and Final Bill of the contractor, who has the option of making the deposit i.e. 2.5% of the Gross Value of order in Cash or other approved modes. The Security Deposit shall be in addition to the Performance Guarantee. The Security Deposit shall be released without interest to the contractor on issue of the virtual completion certificate and after the expiry of the Defect Liability Period of 24 (Twenty-four) months from the date of completion, provided that rectification of any defect intimated within the Defect Liability Period is not pending. The Performance Guarantee and Security Deposit do not bear any interest whatsoever.

- (a) All Statutory payments in connection with the employment of the workmen for this work will be borne by the contractor.
 - (a1) All Statutory taxes like Income tax, GST and contribution to Labour Welfare Fund etc. will be recovered from the Contractors bill at prevailing rates.
 - (b) All compensation or other sums of money payable by the Contractor to the Owner under the terms of this Contract may be deducted from the **Performance Guarantee** if the amount so permits and the Contractor shall, unless such deposit has become otherwise payable within ten days after such deduction make good in cash the amount so deducted.
11. The Contractor shall not assign the Contract. He shall not sublet any portion of the Contract except with the written consent of the Owner. In case of breach of these conditions, the Owner may serve a notice in writing to the Contractor rescinding the Contract whereupon the Performance Guarantee shall stand forfeited to the Owner, without prejudice to his other remedies against the Contractor.

12. The Contractor shall carry out all the work strictly in accordance with Drawings, details and instructions of the Architect and the Structural Consultant. Changes made in the design and with the prior approval in writing of the Owner they desire the Contractor to carry out the same, the Contractor shall carry out the same without any extra charge. The Architect's decision in such cases shall be final and shall not be open to arbitration.
13. A schedule of Probable Quantities in respect of each work and Specification accompany these special conditions. The Schedule of Probable Quantities is liable for alteration by omissions, deduction or additions at the discretion of the Architect. Each tender should contain not only the rates but also the value of each item should be totaled in order to show the aggregate value of the entire tender.
14. The Tenderer must obtain for himself on his own responsibility and at his own expenses all the information which may be necessary for the purpose of making a tender and for entering into a contract and must examine the drawings, and must inspect the site of the work and acquaint himself with all local conditions, means to access to the work, nature of the work and all matters appertaining thereto.
15. The rates quoted in the tender shall include all charges for clearing of site before commencement as well as after completion, water, electric consumption, meters, double scaffolding, centering, boxing, staging, planking, timbering and pumping out water including bailing, fencing, hoarding, plant and equipment, storage sheds, watching and lighting, by night as well as day including Sundays and Holidays, temporary plumbing and electric supply, protection of the public and safety of adjacent roads, street, cellars, vaults, pavement, walls, houses buildings and all other erections, matters or things and the Contractor shall take down and remove any or all such centering, scaffolding, staging, planking, strutting, shoring etc as occasion shall require or when ordered so to do, and fully reinstate and make good all matters and things disturbed during the execution of work and to the satisfaction of the Architect. The rates quoted shall be deemed to be for the finished work to be measured at site. The rates shall also be firm and shall not be subject to exchange variation, labour conditions, fluctuations in railway freights or any conditions whatsoever. The contractor shall obtain all relevant permissions from Electrical Inspectorate, Fire Force etc. for installation and operation of elevators and hand over the same to the owner as soon as the installation is completed.
16. The Contractor should note that unless otherwise stated the tender is strictly on item rate basis and his attention is drawn to the fact that rates for each and every item should be correct, workable and self supporting. The quantities in the Bill of Quantities approximately indicate the total extent of work but may vary to any extent on the higher or lower side and may even be omitted thus altering the aggregate value of the Contract. No claim shall be entertained on this account.
17. Time allowed for carrying out the work as mentioned in the Memorandum shall be strictly observed by the contractor and it shall be reckoned from the 21st day after written order to commence the work is issued or from the date of execution of the agreement or from the date of handing over site whichever is later.

18. The work shall through out the stipulated period of the Contract be proceeded with all due diligence and if the Contractor fails to complete the work within the specified period he shall be liable to pay compensation as defined in the Conditions of Contract. The tenderer shall before be commencing work prepare a detailed work Programme which shall be approved by the Consultant / Architect and Owner.
19. The Contractor shall not be entitled to any compensation for any loss suffered by him on account of delays in commencing or executing the work, whatever the cause of delays may be, including delays arising out of modifications to the work entrusted to him or in any sub-contract connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such works or in procuring government controlled materials for construction purposes or for any other reason whatsoever and the Owner shall not be liable for any claim in respect thereof. The Owner does not accept liability for any sum besides the tender amount, subject to such variations as are provided for herein.
20. The successful tenderer is bound to carry out any item of work necessary for the completion of the job even though such items are not included in the quantities and rates. Schedule of instruction in respect of such additional items and their quantities will be issued in writing by the Architect with the prior consent in writing of the Owner.
21. The successful tenderer must co-operate with the other contractors appointed by the Owner so that the work shall proceed smoothly with the least possible delay and to the satisfaction of the Architect.
22. The Contractor must bear in mind that all the work shall be carried out strictly in accordance with the Specifications made by the Architects and also in compliance of the requirement of the local public authorities and to the requirements of the Bill of Quantities and no deviation on any account will be permitted.
- 23 (a) The successful tenderer for work should make his own arrangements to obtain all materials required for the work.
 - (b) The Contractor shall pay and bear the cost of loading and unloading and transporting the same to the site as well as storage and all other charges and expenses whatsoever required for the completion of the items of work.
 - (c) Water and electricity required for the work shall be provided by the contractor at his cost.
24. The tenderer shall have to use materials of the makes/manufacturers specified in the list of materials of approved brand and/or manufacture contained in this tender form.
25. The contractor shall strictly comply with the provision of safety code annexed hereto.
26. I.S Code numbers wherever mentioned in the tender shall be the latest version of I.S codes as on the date of opening Tenders.

27. The successful tenderer shall be required to submit the chart for the various activities involved in this work including dependencies etc. and regularly monitor the progress of construction accordingly.
28. The security deposit of the successful tenderer will be forfeited if he fails to comply with any of the conditions of the Contract.

29. **CONTRACTOR TO INFORM HIMSELF FULLY**

The Contractor shall be deemed to have carefully examined the work and site conditions including labour, the general and special conditions, the specifications, schedule and drawings and shall be deemed to have visited the site of work to have fully informed himself regarding the local conditions and carried out his own investigation to arrive at the rates quoted in the tender. In this regard, he will be given necessary information available with the Architects but without any guarantee about its accuracy

If the Contractor shall have any doubts as to the meaning of any portion of the general conditions, or the special conditions or the scope of the work or the specifications and drawings or any other matter concerning the contract he shall in good time, before submitting his tender, put forth, the particulars thereof and submit them to the owner, Thiruvananthapuram in writing in order that such doubts may be clarified authoritatively in writing before tendering. Once a tender is submitted the matter will be decided according to tender conditions in the absence of such authentic pre-clarification.

30. **ERRORS, OMISSIONS & DESCRIPTIONS**

- (a) In case of errors, omissions and/or disagreement between written and scaled dimension on the drawings or between the drawings and specifications etc the following order of preferences shall apply.
- (i) Between actual scaled and written dimensions (or description) on a drawing the latter shall be adopted.
- (ii) Between the written or shown description or dimensions in the drawings and the corresponding one in the specification the latter shall be taken as correct.
- (iii) Between the written description of the item in the specifications and the detailed descriptions in the Bill of Quantities of the same item the latter shall be adopted.
- (b) In case of difference between the rates written in figures and words, the rate adopted for working out the total amount of the item in the original tender form, shall be taken as correct. In all other cases the correct rate would be that which is lower.

In all cases of omission and/or doubts or discrepancies in any item or specification a reference shall be made to the Architects whose elucidation, elaboration or decision shall be considered as authentic. The Contractor shall be held responsible for any errors that may occur in the work through lack of such reference and precaution.

I/We hereby declare that I/We have read and understood the above instructions for guidance of tenderers.

Witness :

Signature of Tenderer

Date

Address

SEAL

5. SPECIAL CONDITIONS OF CONTRACT

1. Lump sum items will be paid for only as per actuals based on detailed measurements when they are measurable or on details of labour and materials based on clause 4 below limiting to the lump sum quoted by the contractor or the lump sum provided in sanctioned estimate whichever amount is lower.
2. All items not included in the tender and agreement schedule will be classified as extra items only.
3. The contractor shall be bound to carry out all extra items not provided for in the schedule but found necessary during actual execution of work for proper completion of the Project.
4. Item of work not expressly or impliedly described in the scheduled plans or specifications will be treated as 'extras'. They will include only items of works which though highly necessary for proper execution for the work and for its completion were not provided for in the original contract.
5. The execution of extra item of work and payment therefore will be based on the following. There shall be an order in writing to execute the extra item of work duly recommended by the Architect or his authorized engineer and approved by the Owner.
6. The rates for extra item of work shall be worked based on rates as approved by the Architect and Owner.
7. All sums found due to Government from the contractor, or by virtue of this agreement shall be recovered from the contractor if so required by the respective departments.
8. The Owner will undertake wherever necessary to supply controlled materials and no claim for extra payment on account of delay in the supply of controlled materials will be entertained.
9. When the rate quoted in figures and words disagree the rates quoted in words will be taken for the purpose of the settlement of the contract and the contractor is bound to accept the rates if awarded to him.

9(a) Terms of Payment

- (1) 10% of the PAC as advance against Bank Guarantee on approval of the GA Drawings with all required details. The Bank Guarantee is to be valid till the date of completion of the work.
- (2) 60%(total 70%) on Complete Material Delivery of the Elevator wise Elevator Materials at Site.

- (2) 20 % (total 90%) on completion of the work and issue of virtual completion certificate.
- (3) Balance 10% (total 100%) on receipt of all statutory approvals, testing and handing over of the Elevators.
- (4) All payments are subject to deduction of Security Deposit and all other statutory deductions.

In case different rates are quoted for same specification under identical working condition in different parts of the schedule only the lowest quoted rates will be accepted.

10. All items should be carried out as per the relevant specification for the items in the BOQ, with clarifications if any, by the architect.
11. The Contractor alone is responsible for the safety of his labourers and damages, if any payable under workmen's Compensation Act will be to his debit. He shall abide by the conditions in all the relevant labour laws. All safety measures are to be ensured by the Contractor; the owner shall not be responsible for any mis-happenings in the site due to the negligence or otherwise of the Contractor's workers.
12. Defects, if any noticed within 24 months from the date of virtual completion of the work will be got rectified by the contractor in default of which this will be attended by the Owner and the cost made good from the Contractor.
13. The Contractor agrees that before final payment shall be made on the contract he will sign and deliver to the Architect either in the measurement book or otherwise as demanded a valid release and discharge from any and all claims and demands whatsoever for all matters arising out connected with the contract provided that nothing in this Clause shall discharge or release the Contractor from his liabilities under the Contract. It is further expressly agreed that the Architect on supplying the final measurements Certificate need not be bound by the preceding measurements and payments. The final measurements if any, of the Architect shall be final conclusive and binding on the Contractor.
14. The Tender Notice shall form part of the Agreement
15. The date fixed by the Architect for commencement and completion of works as entered in the Agreement shall be strictly observed by the Contractor. One fourth of the work to be done when one fourth of the whole time allowed for it has elapsed, one half of the work when one half of the time allowed elapsed, and three fourth of the works when three fourth of the time has elapsed. However, if due to unforeseen delay in design or construction the above rate of progress could not be maintained the contractor may apply in writing to the Architect for modification of the rate of progress indicating the reason therefor. The Architect may recommend to the owner, the modification in rate of progress within the limit of extension of item as per clause (a) below:
16. The time for completion of the whole of the Facilities including commissioning all the 3 (Three) Elevators shall be 3 (Three) months from the date of issue of letter acceptance.

Stage	Details of activities	Time Period	Value of component in %
1	Submission of detailed Engineering drawings	7 th day	5%
2	Supply of all Elevators Units/Equipment	45 th day	75%
3	Completion of installation	75 th day	90 %

	of Elevators		
4	Testing & Commissioning and approval of Lift Inspector	90 th day	100 %
5	Defects Liability period with free maintenance	24 months after satisfactory completion, successful commissioning of works and operational acceptance	

17. Extension of time of completion of work and fine:

If the contractor fails to maintain the required progress in terms of Clause 16 or to complete the work on or before the contract or extended date of completion, he shall, without prejudice to any other right to remedy, available under the law of the Government on account of such breach, pay, as agreed compensation, the amount calculated at the rates stipulated below that the progress remains below that specified in Clause 16 or that the work remains incomplete.

Compensation : @ 1.5% per month of delay to be computed on per day basis for the value of the work remaining to be done. Provided always that the total amount of compensation for delay to be paid shall not exceed 10% of the tendered value of work remaining to be done. The amount of compensation shall be adjusted against any sum payable to the contractor.

18. The time allowed for the works as specified or the extended time granted in accordance with these conditions shall be the essence of the contract. The execution of works shall commence from such time period specified in the selection notice. If the contractor fails to commence the work in the stipulated time, the Owner will be at liberty to forfeit the earnest money deposit and performance guarantee absolutely. On signing the contract, a **“Time and Progress Chart”** shall be prepared and submitted by the contractor indicating the various activities / items of work and their proposed programme of completion. The said Programme on approval of owner shall be treated as part of the contract.
19. The Contractor has to engage and nominate the following staff during the duration of construction and upto completion.
 - 1No Project Manager – Engineering Graduate with at least 15 years Experience
 - 2Nos Site Supervisors “Diploma” with at least 5 years experience
 - Other staff like Storekeeper and Watch & Ward as required and as directed.
20. The method of measurements will be as per Indian Standard
21. All sums found due to the Owner under or virtue of these presents shall be recoverable first from the security furnished by the Contractor
22. The rates quoted by the Contractor shall be inclusive of all statutory taxes like Income tax, GST and contribution to Labour Welfare Fund etc. which will be recovered in the prevailing rates.

23. Intending Tenderers are expected to inspect the site before tendering and ascertaining the exact nature of the work to be done. No plea for extra rates of any kind over and above the rates quoted by them will be considered.
24. The quantities provided for in the schedule may vary widely and the Contractor should be prepared to do any variation over the Schedule Quantities at quoted rate for the work.

COMMUNICATIONS FOR CONDUCT OF CONTRACT WORK

The following procedure for communication between Owner and Contractor will be in force:

- | | | |
|---|---|--|
| <ol style="list-style-type: none"> 1. For day-to-day operations on technical aspects, arrangement of works, measurements, instructions in the field, periodical reports etc | } | Chief Project Engineer,
RGCB, Architect's Site
Engineer and Contractor. |
| <ol style="list-style-type: none"> 2. For more important aspects of the Contract such as rescheduling of works, defaults/ delays, negligence etc of Contractor, submission of contract certificates, requests for extra items, finalization of rates therefore etc | } | Chief Project Engineer,
RGCB, Architect's Site
Engineer and Contractor.
Contractor shall give a copy
of his communication to
the Architect. |
| <ol style="list-style-type: none"> 3. On Major issues involving financial aspects, payment of bills, dispute etc. | } | Owner, Owner's Chief
Consultant and the
Contractor. The Contractor
shall write to the Owner
through the Architect. |
| <ol style="list-style-type: none"> 4. Request (& further requests if warranted) for Completion certificate | } | Owner and Contractor.
Contractor shall give a copy
of request to Engineer &
Owner through Architects |
5. All bills for payment should be addressed to the Owner and submitted through the Architect.

6. SAFETY CODE

1. First aid appliances including adequate supply of sterilized dressings and cotton wool shall be kept in a readily accessible place.
2. An injured person shall be taken to a public hospital without loss of time, in cases where the injury necessitates hospitalization.
3. Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from ground.
4. No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be less than 30 cm. (clear) and the distance between two adjacent rungs shall not be more than 30 cm. When a ladder is used an extra mazdoor shall be engaged for holding the ladder.
5. The excavated material shall not be placed within 1.5 meters of the edge of the trench or half of the depth of trench whichever is more. All trenches and excavations shall be provided with necessary fencing and lighting.
6. Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be one metre.
7. No floor, roof or other part of the structure shall be so over loaded with debris or materials as to render it unsafe.
8. Those engaged in welding works shall be provided with welder's protective eye-shields and gloves.
9. (i) No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
(ii) Suitable facemasks should be supplied for use by the workers when the paint is so applied in the form of spray or surface having lead paint dry rubbed and scraped.
10. Overalls shall be supplied by the Contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during the periods of cessation of work.
11. Hoisting machines and tackle used in the works, including their attachments, anchorage and supports shall be in perfect condition.
12. The ropes used in hoisting or lowering material or as a means of suspension shall be of durable quality and adequate strength and free from defects.

ACCIDENTS HOARDING LIGHTING – OBSERVATIONS WATCHMAN

- (a) When excavations have been made or obstacles have been put in public thorough fares or in places where there is any likelihood of accidents, the contractor shall comply with any requirements of law on the subject, and shall provide suitable hoarding lighting and watchman as necessary.
- (b) It shall be the contractor's sole responsibility to protect the public and his employees against accident from any cause and shall indemnify the owner against any claims for damages for injury to person or property, resulting from any such accidents and he shall where the provisions of the Workmen's Compensation Act - apply, take steps to properly insure against any claims there under.
- (c) On the occurrence of an accident which results in the death of any of the workmen employed by the contractor or which is so serious as to be likely to result in the death of any such workmen the contractor shall within 24 hours of the happening of such accident intimate in writing to the Owner, the fact of such accident. The contractor shall indemnify Owner against all loss or damage sustained by Owner resulting directly or indirectly from his failure to give intimation in the manner aforesaid, including the penalties or fines if any payable by Owner as a consequence of Owner's failure to give notice under the Workmen's Compensation Act or otherwise conform to the said Act in the regard to such accident.
- (d) In the event of an accident in respect of which compensation may become payable under the Workmen's Compensation Act VIII of 1973 such sum or sums of money as may be, in the opinion of the Owner shall be final in regard to all matters arising under this clause. In such cases , the contractor shall bear the compensation payable and the contractor shall indemnify the Owner against such payments.

7. DECLARATION BY TENDERER

I
hereby declare that I am not related to an Employee of the owner who is in charge of or having control of this work. I agree that if at any stage it is provided that this declaration is untrue, the Earnest Money/Security Deposit paid by me will be forfeited and the Contract entered will stand cancelled. It is understood that the relationship with the owner Employee referred to herein will be restricted to my Father, Mother, Son, Daughter, and Brother, Sister, Direct Uncle, Nephew, Father-in-law, Mother-in-law, Brother-in-law, Sister-in-law and first Cousin of the Employee concerned.

SIGNATURE OF THE TENDERER

Place:

Date:

8. GENERAL CONDITIONS OF CONTRACT

1. Definition of Terms

In Construing these conditions, the specifications, Bill of Quantities and contract Agreement, the following words shall have the meanings herein assigned to them except where the subject or context otherwise requires.

(a) Owner: Shall mean the owner The Rajiv Gandhi Centre for Bio- technology and shall include its assigns and successors.

(a1) **‘Consultant’** shall mean the Engineering Consultant appointed by the owner.

(a2) **‘Architect’** shall mean M/s. Iyer & Mahesh, Registered Architects & Approved Valuers, 15/1989 (7), Narayana Towers, Vazhuthacaud, Thiruvananthapuram 695014.

(a3) **‘Engineer’** Shall mean the Engineer of Architect and acting on behalf of the Architect/ Owner. He is empowered to issue instructions and such other orders, as he may think fit to the Contractor within the scope of this contract for its proper fulfillment, for taking of measurements of work, determining the quality of works and recommend for payments on contract certificates under the instructions of the Architect. Payments however, shall be made by the Owner on advice of Architects.

(b) ‘Contractor’ in the case of a Partnership firm

“Contractor” shall meanand trading as partners in the name and style of..... and having a place of business at..... and shall include the partners for the time being of the said and the legal representatives of a deceased partners.

‘Contractor’ in the case of Individual

“Contractor” shall mean Shri.....trading in the Individual name and style of.....and shall include his heirs, and legal representatives.

In the case of Company

“Contractor” shall mean..... a company incorporated under company law. and having its registered office at and shall include its successors and assigns.

- (c) **‘Site’**
Shall mean the site of the Contract works including any building and erections thereon and any other land (inclusively) as aforesaid allotted by the Owner for the Contractor’s use
- (d) **‘This Contract’** shall mean the Articles of Agreement, the Special Conditions, the Conditions, the Appendix, the Bill of Quantities and Specification attached hereto and duly signed.
- (e) **‘Notice in writing ’**or written notice shall mean printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.
- (f) **‘Act of Insolvency’** shall mean any Act of Insolvency as defined by the Presidency Towns insolvency Act, or the Provincial Insolvency Act or any Act amending such original
- (g) **‘Net Prices’** If in arriving at the contract amount, the Contractor shall have added to or deducted from the total of the items in the Tender any sum, either as a percentage or otherwise, then the net price of any item in the tender shall be the sum arrived at by adding to, or deducting from the actual figure appearing in the tender as the price of that item a similar percentage or proportionate sum provided always that in determining the percentage or proportion of the sum so added or deducted by the contractor the total amount of any Prime cost items and provisional sums of money shall be deducted from the total amount of the tender. The expression “net rates” or “net prices” when used with reference to the contract or accounts shall be held to mean rates or prices so arrived at.
- (h) **“The Works”** shall mean at S I T C of 2 nos. Passenger Elevators and 1 No Freight Elevator at Hostel Block RGCB, Aakkulam, Trivandrum for the Owner as per the Bill of Quantities as provided herein. Words importing persons include firms and corporations. Words importing the singular only also include the plural and vice versa where the context requires.

2. **Scope of Contract**

The Contractor shall carry out and complete the said work in every respect in accordance with this contract and with the directions of and to the satisfaction of the Architect. The Architects may in his absolute discretion and from time to time issue further drawings and / or written instructions, details directions and explanations which are hereafter collectively referred to as “Architect’s Instructions” in regard to.

- (a) The variation or modification of the design, quality or quantity of works or the addition or omission or substitution of any work.
- (b) Any discrepancy in the drawing or between the Bill of Quantities and / or Drawings and / or specification.

- (c) The removal from the site of any material brought thereon by the Contractor and the substitution of any other materials therefore.
- (d) The removal and/ or re-execution of any works executed by the Contractor.
- (e) The dismissal from the works of any persons employed thereupon.
- (f) The opening up for inspection of any work covered up.
- (g) The amending and making good of any defects

The contractor shall forthwith comply with and duly execute any work as per Architect's instructions provided always that verbal instructions, directions and explanations given to the Contractor or his representative upon the works by the Architect shall, if involving a variation, be confirmed in writing by the Contractor within seven days, and if not dissented from in writing within a further seven days by the Architect, such shall be deemed to be Architect's instructions within the scope of the Contract.

3. Drawings & Bill of Quantities & Agreement :

The Contract shall be executed in triplicate and the Architect, the Owner and the Contractor shall be entitled to executed copy each for their use. The Contractor on the signing hereof shall be furnished by the Architects free of cost one copy of each of the said drawings and of the specification and one copy of all drawings on the works and the Architect or his representative shall at all reasonable time have access to the same. Before the issue of the final certificate to the contractor he shall forthwith return to the architect all drawings and specification.

4. Contractor to provide everything necessary at his cost:

The Contractor shall provide at his cost everything necessary for the proper execution of the works according to intent and meaning of the Drawings and Bill of Quantities taken together with whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from and if the Contractor finds any discrepancy in the drawings or between the drawings, and Bill of Quantities, he shall immediately and in writing refer same to the Architect who shall decide which is to be followed.

5. Authorities, Notices, Patents:

The Contractor shall conform to the provisions of any Act of the Legislature relating to the works, and to the regulations and bye-laws of any authority, and of any water, electric supply and other companies and/ or authorities with whose systems the structure is proposed to be connected, and shall, before making any variations from the drawings or specifications that may be necessitated by so conforming, give to the architect written notice, specifying the variation proposed to be made and the reason for making it and apply for instructions thereon. In case the Contractor does not within ten days receive such instructions he shall proceed with the work conforming to the provisions, regulations, or bye-laws in question, and any variations so necessitated shall be reported to the owner.

The Contractor shall bring to the attention of the Architect all notices required by the said Acts, regulations or bye-laws to be given to any authority and pay to such authority or to any public office of all fees that may be properly chargeable in respect of the

works, and lodge the receipts with the Architect for arranging reimbursement, if so provided for in the contract.

The Contractor shall indemnify the Owner against all claims in respect of patent rights, and shall defend all actions arising from such claims, and shall himself pay all royalties, license fees, damages, cost and charge of all and every sort that may be legally incurred in respect thereof.

6. Setting out of Works:

The Contractor shall set out the works and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, and during the progress of the works or within a period of two years from the completion of the works, the contractor shall, if so required, at his own expense rectify any such error to the satisfaction of the Architect.

7. Materials & Workmanship to conform to descriptions

All materials and workmanship shall so far as procurable of the respective clients described in the Bill of Quantities and / or specifications and in accordance with the Architect's instructions and shall upon the request of the Architect, furnish him with all invoices, account, receipts and other vouchers to prove that the materials comply therewith. The Contractor shall at his own cost arrange for and/or carry out test of any materials which the Architects may require.

8. Contractors Superintendence and representative on the works:

The Contractor shall give all necessary personal superintendence during the execution of the works, and as long thereafter as the Architect may consider necessary until the expiry of the "Defects Liability Period". The Contractor shall also during the whole time the works are in progress employ a competent qualified and experienced Engineer (with suitable supporting staff) who shall be constantly in attendance at the works while the men are at work. Appointment of such contractor's personnel should be informed to Architect and the Owner. Any directions, explanations, instructions or notices given by the Architect to such representative shall be held to be given to the Contractor.

9. Dismissal of workmen:

The Contractor shall on the advice of the Architect/owner immediately dismiss from the work any person employed thereon by him who may, in the opinion of the Architect, be incompetent or misconduct himself and such persons shall not be again employed on the works without the permission of the Architect/Owner.

10. Access to work:

The Owner, the Architect and their respective representatives shall at all reasonable times have free access to the work and / or to the workshops, factories or other places where materials are lying or from which they are being obtained and the Contractor shall give every facility to the Owner, the Architect and their representatives necessary for inspections and examination and test of the materials and workmanship. No person not authorized by the Owner or the Architect except the representatives of public authorities shall be allowed on the works at any time.

11. Assignment & sub-letting:

The whole of the works included in the contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or under-let the contract or any part/share thereof or any interest therein without the prior written consent of the Owner and no undertaking shall relieve the Contractor from the full and entire responsibility of the contract or from active superintendence of the works during their progress.

12. Bill of Quantities:

The Bill of Quantities unless otherwise stated shall be deemed to have been prepared in accordance with the standard Method of Measurement. Any error in description or in quantity or in omission of items from the Bill of Quantities shall not vitiate this contract but shall be rectified and the value thereof, as ascertained by the architect, shall be added to or deducted, from the rectification of errors, if any, shall be allowed in the Contractor's Schedule of Rates.

13. Sufficiency of Bill of Quantities:

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of Bill of Quantities, tender for the works and of the prices stated in the Bill of Quantities and/or the schedule of rates and prices, which rates and prices shall cover all his obligations under the Contract, and all materials and things necessary for the proper completion of the works.

14. Measurement of work:

The Architect may from time to time intimate to the Contractor and the Owner that he requires the works to be measured, and the Contractor shall forthwith attend or send a qualified agent to assist the Architect or his Engineer in taking such measurements and calculations and to furnish all particulars or to give all assistance required by any of them.

Should the Contractor not attend or neglect or omit to send such Agent then the measurement taken by the Architect or his Engineer shall be taken in accordance with the Mode of Measurements detailed in the specifications.

The Contractor or his agent may at the time of measurement take such notes and measurements as he may require.

All authorized extra works, omissions and all variations made with the Architects' knowledge, and sanctioned by him in writing shall be included in such measurements.

15. Prices for extras etc. ascertainment of

The contractor may, when authorized, and shall, when directed, in writing by the Architects with the approval of the Owner add to, omit from or vary the works shown upon the drawings, or described in the specification, or included in the Bill of Quantities, but the contractor shall make no addition, omission or variation without such authorization or direction. A verbal authority or direction by the Architects shall, if

confirmed by them in writing within seven days, be deemed to have been given in writing. Prices shall be fixed on rates approved by the Architect.

16. Unfixed materials when taken into account to be property of the Owner

Where in any certificate (of which the contractor has received payment), the Architect has included the value of any unfixed materials intended for and/or placed on or adjacent to the works such materials shall become the property of the Owner and they shall not be removed except for use upon the works, without the written authority of the Architect. The contractor shall be liable for any loss of, or damage to, such materials.

17. Removal of improper work

The Architect shall, during the progress of the works has power to order in writing from time to time the removal from the works within such reasonable time or times as may be specified in the order, of any materials which in the opinion of the Architect are not in accordance with the specifications or the instructions of the Architect, the substitution of proper materials, and the removal and proper re-execution of any work execution of any work executed with materials or workmanship not in accordance with the drawings and specification or instructions and the Contractor shall forthwith carryout such order at his own cost. In case of default on the part of the Contractor to carry out such order, the Owner shall have the power to employ and pay other persons to carry out the same, and all expenses consequent thereon, or incidental there to, as certified by the Architect shall be borne by the Contractor or may be deducted by the Owner from any moneys due, or that may become due, to the Contractors.

18. Defects after virtual completion:

Any defect, shrinkage, settlement or other faults which may appear within the "Defects Liability Period" within 24 months after the virtual completion of the works, arising in the opinion of the Architect from materials or workmanship not in accordance with the Contract, shall upon the directions in writing of the Architect, and within such reasonable time as shall be specified therein, be amended and made good by the Contractor at its own cost and in Case of default the owner may employ and pay other persons to amend and make good such defects at the risk and cost of the contractor.

19. Certificate of Virtual Completion & Defects Liability Period:

The works shall not be considered as completed until the Architect has certified in writing that they have been virtually completed. The Defects Liability Period of 24 months shall commence from the date of such certificates.

20. Insurance in respect of damages to persons and Property:

The Contractor shall be responsible for all injury or damage to persons, animals or things, and for all damage to property, which may arise from any act or omission on the part of the Contractor or any sub-contractor or any nominated sub-contractor or any of their employees. The contractor shall insure the works against all risk(CAR) for a value of

10% above the PAC in the joint name of the owners and the contractor and deposit the policy with the owner.

21. Date of Commencement and completion

The contractor shall be allowed admittance to the site on the 'Date of Commencement' stated in the Appendix hereto, or such date as may be specified by the Architect and he shall thereupon and forthwith begin works and shall regularly proceed with and complete the same (except such painting or other decorative work as the Architect may desire to delay) on or before the 'Date of Completion' stated in the Appendix subject nevertheless to the provisions for extension of time herein after contained.

22. Cancellation of Contract for non-completion in original / extended time.

If the contractor fails to complete the works by the date stated in the Appendix or within any extended time and the Architect certifies in writing that in his opinion the same ought reasonably to have been completed the owner may take action to issue notice and terminate the contract at the risk and cost of the contractor.

23. Delay & extension of time

If in the opinion of the Architect the works be delayed (a) by force majeure or (b) by reason of any exceptionally inclement weather or (c) by reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners or public authorities arising otherwise than through the Contractor's own default or (d) by the works or delays of other Contractors or Tradesmen engaged or nominated by the Owner or the Architect and not referred to in the Bill of Quantities and/ or Specifications or (e) by reason of Architect's instructions as per Clause 2 hereof or (f) by reason of civil commotion, local combination of workmen or strike or lockout affecting any of the building trades or (g) in consequence of the Contractor not having received in due time necessary instructions from the Architect for which he shall have specially applied in writing or (h) from other cause which the Architect may certify as beyond the control of Contractor or (i) in the event, the value of the work exceed the value of the Priced Bill of Quantities owing to variation, the Architect may with previous approval in writing of the Owner make a fair and reasonable extension of time for completion of the Contract works. In case of such strikes or lockout the contractor shall immediately give written notice thereof to the Architect but the Contractor shall nevertheless constantly use his endures to prevent delay and shall do all that may reasonably be required to the satisfaction of the Architect to proceed with work. This period of extension will be over and above the grace period allowed as per special conditions of contract.

24. Failure by Contractor to comply with Architect's instruction

If the Contractor after receipt of written notice from the Architect requiring compliance within ten days fails to comply with such further drawing and / or Architect's instruction with the Owner may employ and pay other persons to execute any such Architects work whatsoever that may be necessary to give effect thereto, and all costs incurred in connection therewith shall be recoverable from the contractor by the Owner on the

Certificate of the Architect as a debt or may be deducted by him from any moneys due to the Contractor.

25. Termination of Contract by the Owner:

If the Contractor being an individual or a firm commits any “act of insolvency” or shall be adjudged an Insolvent or being an incorporated company shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to the supervision of the court and the official Assignee or the Liquidator in such acts of insolvency or winding up, as the case may be, shall be unable within seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Architect that he is able to carry out and fulfill the contract and to give security therefore, if so required by the Architect.

Or if the Contractor (when an individual, firm or incorporated Company) shall suffer execution or other process of court attaching property to be issued against the Contractor.

Or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the contractor.

Or shall assign or sublet this contract without the consent in writing of the Owner first had and obtained.

Or shall charge or encumber this contract or any payments due or which may become due to the Contractor hereunder.

Or if the Architect shall certify in writing to the Owner that the contractor.

- (i) Has abandoned the Contract, or
- (ii) Has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the works for fourteen days after receiving from the Architect notice to proceed or
- (iii) Has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
- (iv) Has failed to remove materials from the site or to pull down and replace work for seven days after receiving from the Architect written notice that the said materials or work were condemned and rejected by the Architect under these conditions, or
- (v) Has neglected or failed persistently to observe and perform all or any of the acts, matters or things by the contract to be observed and performed by the Contractor for fourteen days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same.

Then and in any way of the said cases the Owner may, notwithstanding any previous waiver, after giving fourteen days notice in writing to the Contractor, terminate the contract, but without thereby affecting the powers of the Architect or the obligations and liabilities of the Contractor, the whole of which shall continue in force as fully as if the contract had not been so terminated, and as if the works subsequently executed had been executed by or on behalf of the Contractor. And further, the Owner by his agents or servants may enter upon and take possession of the works and all plants, tools, scaffoldings, sheds, machinery steam and other power utensils and materials lying upon the premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other contractor or other person or persons to complete the works, and the contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other contractor or other person or persons employed for completing and finishing or using the materials and plant for the works. When the works shall be completed or as soon thereafter as convenient the Architect shall give a notice in writing to the contractor to remove his surplus materials and plant, and should the contractor fail to do so within a period of 14 days after receipt thereof by him, the Owner may sell the same by public auction, and give credit to the Contractor for the net amount realised. The Architect shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to or by the Owner, for the value of the said plant and materials so taken possession of by the Owner and the expense or loss which the Owner shall have been put to in procuring the works to be completed and the amount, if any, owing to the contractor and the amount which shall be so certified shall thereupon be paid by the Owner to the Contractor or by the Contractor to the Owner, as the case may be, and the Certificate of the Architect shall be final and conclusive between the parties.

26. Termination of Contract by Contractor:

If the payment of the amount payable by the Owner under Certificate of the Architect shall be in arrears and unpaid for sixty days after notice in writing and requiring payment of the amount as aforesaid shall have been given by the Contractor to the Owner, or if the Owner interferes with or obstructs the issue of any such certificate, or if the Owner shall repudiate the Contract, or if the works be stopped for three months under the order of the Architect or the Owner or by an injunction or other order of any court of law, then and in any of the said cases the Contractor shall be at liberty to terminate the Contract by notice in writing to the Owner, through the Architect, and he shall be at liberty to terminate the Contract by notice in writing to the Owner, through the Architect, and he shall be entitled to recover from the Owner, payment of all works executed.

In arriving at the amount of such payment the net rates contained in the Contractor's original tender shall be followed or where the same may not apply valuation shall be made in accordance with Clause 16 hereof.

27 Payment Mode & Procedure

- (a) No work will be paid for unless thoroughly good and fully in accordance with the specifications and should due to inadvertence bad work be passed and paid for, it will nevertheless be perfectly competent for the Owner to strike the same out of the account at any future time and recover the value at any date previous to or at the time of granting the final certificate.
- (b) Interim contract certificates are subject to any later adjustments that may be deemed necessary at the discretion of the Owner and shall not create a liability to him to pay for variations of work not specifically accepted by him.
- (c) No certificate of the Owner nor any sum paid shall affect or prejudice his rights against the Contractor or release him of his contractual obligations or be interpreted as approval of the materials supplied or works done.

Procedure for preparation and submission of contract certificates and other

Bills for payment

Contract Certificate: When the Contractor has carried out works to such extent to justify calling for an interim contract certificate referred as 'RA Bills' as per the provisions of the contract, he shall proceed to prepare and submit for payment papers in the following manner.

All papers should carry the name of work the date of the measurement recording, the contract no., chronological serial no. of the contract, page numbers should be serially marked.

(a) Measurements

1. The measurements shall be recorded by the Architect's Engineer jointly with Contractors authorized representative and record them directly in the Measurement Books and shall be signed at the end of each session of measurement or the day's work as the case may be, by both the parties (Architect's Engineer and the Contractor). Initials of the Engineer with date should be put on every page. The measurements are to be check measured by another senior level Engineer of the Architect.
2. The M.book shall be in the custody of the Engineer of the Architect.
3. Extra or deviated items as claimed by the Contractor shall not be recorded in the M.book until they are approved by the competent authority.
4. The Contractor shall then prepare his detailed bill, in quadruplicate in the name of the Owner (Original, duplicate & quadruplicate) based on the certified measurements, and the accepted rates applicable for each item. There shall be an abstract of the value of works measured for each appendix. The quantities given herein shall be the total upto date quantities. The deduction to be made such as Security Deposit, Income tax, Sales tax, Labour Welfare Fund, advances already made on earlier bills, cost of materials if any issued etc. will be made and the net amount will be arrived at. These together with Photostat copy of accepted 'Measurements' sheets along with the M.book shall be submitted to the Architect with a covering letter addressed the Owner. He will retain

the quadruplicate for his reference. A copy of the covering letter should be sent to the Owner.

5. The Architect shall then process the bill making correction, if any, required and forward the original and one copy to the Owner for payment.
6. The Owner shall verify the bills, incorporate necessary corrections, wherever deemed necessary, get it audited and arrange for the payment. Payment shall be by cheques and pay orders.
7. Extra items, which are not ordered in writing by the Owner, should not be included in the measurements.

28. Certificate of Payments:

- a) The Architect shall have power to withhold any Certificate if the works or any parts thereof are not being carried out to his satisfaction.
- b) The Architect may by any Certificate make any correction in any previous Certificate which shall have been issued by him.
- c) No payment shall be made to the Contractor if the Contractor fails to insure the works and keep them insured till the issue of the Virtual Completion Certificate.
- d) Payments upon the Architect's Certificate shall be made within the periods named in the Appendix as "Period for honour of Certificates" after such Certificates have been delivered to the Owner.
- e) **Arbitration will not be a means to settle any dispute arising in the context.**

29. Right of Technical Scrutiny:

The Owner shall have a right to cause a technical examination of the works by any of the persons or organizations as appointed by the Owner and all bills of the contractor including all supporting vouchers, abstracts etc of all bills. If as a result of this examination or otherwise any sum is found to have been over paid or over certified it shall be lawful for the Owner to recover the sum from any payment due to the contractor for this work or any other work or works being carried out by the contractors elsewhere under the owner.

30. Owner entitled to recover compensations paid to workmen

If, for any reason, the owner is obliged, by virtue of the provisions of the workmen's compensation Act, 1923, or any statutory modification or re-enactment thereof to pay compensation to a workman employed by the contractor in execution of the works, the Owner shall be entitled to recover from the contractor the amount of compensation so paid, without prejudice to the rights of the Owner under the said Act. The Owner shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due to the contractor. The Owner shall not be bound to contest any claim made against it under the said Act, except on the written request of the contractor and upon his giving to the Owner full security to the satisfaction of the Owner for all costs for which the Owner might become liable in consequence of contesting such claim.

31. Abandonment of works:

If at any time after the acceptance of the tender, the Owner shall, for any reasons whatsoever not require the whole works or any part of the works to be carried out, the Architect shall give notice in writing to the contractor who shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantage which he might have derived from the execution of the whole works.

32. Return of Surplus materials:

Surplus of any material issued by the owner, shall be returned at the end of the contract, in good condition failing which the cost there of will be recovered.

33. Right of Owner to terminate Contract in the event of death of contractor if individual

Without prejudice to any of the rights or remedies under this contract, if the contractor, being an individual, dies the Owner shall have the option of terminating the contract without incurring any liability for such termination.

34. Force Majeure

- i. Any Failure or delay in the performance by either party hereto of its obligations under his contract shall not constitute a breach thereof or give rise to any claims for damages if, and to the extent that it is caused by occurrences beyond the control of the party affected, namely, acts of God, floods, explosions, wars, riots, storms, earthquakes, insurrection, epidemic or other natural disasters. The party so affected shall continue to take all actions reasonably within its power to comply as far as possible with its obligations under this Contract. The affected party shall promptly notify the other party after the occurrence of the relevant event and shall use every reasonable effort to minimize the effects of such event and act in all good faith with due care and diligence.
- ii. In the event of the effect of force majeure continuing beyond the period of one hundred and eight (180) days, the parties shall mutually decide whether or not to terminate this contract. In the event of termination of contract, the contractor shall be paid for the work done and which has been accepted and certified by Architect and shall not assert any additional claims against the Client.

9. TECHNICAL SPECIFICATION FOR ELEVATORS

1. SCOPE :

This comprises the supply, installation, testing and commissioning of 2 Nos. (Two) elevators.

The equipment required is outlined broadly herein without attempting to cover the details of design and construction. Contractor shall provide all equipments and accessories required for satisfactory operation of the elevators.

2. STANDARDS & CODES:

- (a) Design of elevator equipment and components and their installation and working shall meet the requirements of the relevant Indian Standard Specifications.
- (b) Quantities, Capacities and Speed: Details may be seen in the enclosed statement.

3. TRAVEL & DIMENSIONS

The travel shall include levels starting from

- (a) Ground floor to seventh floor for Hostel Block Elevators (Details given in the statements attached. Dimension of the car and other details noted in the statements are approximate. Bidder may propose sizes (but not less) as per his design and quote accordingly.

4. MACHINE LOCATION:

- (a) Located Inside the hoist way for Hostel Block.
- (b) Fan, light and alarm-bell power shall be provided by an independent power circuit so that these services shall remain operative in the event of abnormal stopping of motor/Power failure.

5. OPERATION:

- (a) The controls should be connected for simplex/duplex and with or without Attendant.

Separate adjustable timer shall be provided to establish minimum passenger transfer time for car stops and hall stops.

6. CONTROL/MAIN DRIVE/DOOR DRIVE

Microprocessor based – A C variable voltage and variable frequency and Gear less.

7. HALL FIXTURE:

One set of hall button should be provided on each floor. The hall button should be combination of luminous hall button and digital position indicators. A single luminous button is to be provided at terminal floor combined with digital display to indicate the car position. The fixture is to be provided with fireman's switch at main lobby, digital car position indicator in car, telephone cabinet in car with leads, battery operated alarm bell and emergency light. Hall Lantern Arrival Gong for Duplex Elevators.

8. Stops and openings shall be operable for 8 stops and 8 landings. All openings on the same side. The openings shall be as per statement attached.

9. CAR/HOIST SIZES:

Details given in the attached statements.

10. BUFFERS & GUIDES shall be provided with the following

- (a) Spring type buffer/Oil Buffer shall be provided for car and counter weight to support the impact loads of the elevator.
- (b) Guides, fastenings, bearing plate, buffer supports etc.
- (c) Planed heavy duty steel tee sections shall be provided as car counter-weight guides. Stem sections or guides shall be tongued and grooved to provide smooth joints.
- (d). Guide brackets of supports shall be welded to the steel plates provided in the hoistway by the Contractor on otherwise fixed firmly to the hoistway walls.
- (e). Steel beams, channels, plates etc. required for buffer support, bearing plates, separators for machine beams etc. to be supplied and installed by the Contractor.
- (f) All steel sections shall be of approved make and shall be duly painted.

11. COUNTER WEIGHTS :

Counter-weights shall consist of cast iron weights in structural steel frame. Counter weight shall be equal to the weight of the car and 40% of the contract load or any other percent to promote smooth and economical operation.

12. ROPES & SHEAVES:

Hoisting ropes shall be multistrand traction steel with hempcore. The size and number of ropes shall be as required for achieving a factor of safety of not less than Ten. Or Belts as per IS and Manufacture Specifications.

13. HOISTWAY ENTRANCE:

The door shall be of imperforated type, comprising of individual panels, with a back up support of a door frame.

For the landing, a full opening size steel entrance frame and facia is to be provided with the door.

14. DOOR OPERATOR - Automatic_Centre opening/ Side Opening

Door operator shall be provided with following interlocking arrangements.

- (a) Car shall not move until the hoistway door is mechanically locked in the closed position
- (b) Car shall not move while the car gate is open
- (c) Door operator shall open the Door at the landing where the car is stopping and not at any other hoistway door.
- (d) It shall be possible for door to reopen in case the doors are not able to close completely in the event of any obstruction while closing. The doors shall then open and re-close once the obstruction is removed.
- (e) Car doors and Landing doors shall be regulated by full length IR Sensors.

15. CAR:

The tenderer should quote for car with vandal proof/ Scratch Proof or Similar stainless-steel enclosure, with fan, light fixture, LED light, emergency light and Bush Hammered Black granite flooring for the passenger & Freight elevators

Car frame shall support the car platform and enclosure and shall be made of structural steel and equipped with suitable guides and car safety devices.

16. A flush type, lockable, hinged, stainless steel, car operating panel with luminous button with the following devices shall be fitted in the car.
 - (a) Bank of call buttons corresponding to landings served.
 - (b) Emergency stop switch
 - (c) Alarm button
 - (d) Non stop button
 - (e) Fan switch
 - (f) Door open switch
 - (g) Door close switch
 - (h) Up and down reversal button
 - (i) Key operated inspection switch
 - (j) 'Up' & 'Down' direction indicator
 - (k) Key operated selector switch for "Attendant" and "Automatic" operation
 - (l) Overload indication
 - (m) All the elevators shall have Fire Fighter's Emergency features
 - (n) The choice of buttons and indicators shall be as approved by the Owner and Architect.
17. A digital car position and direction indicator shall be provided in the car indicating the landing at which the car is stopped or passing.
18.
 - (a) Car entrance shall be provided by imperforated sliding door of the same size as landing doors. Door shall be sliding type and provided with safety devices.
 - (b) All landing doors shall be of minimum 2 hr. Fire rating.
- 19.. All exposed elevator metal work shall be given one shop coat of rust inhibiting paint before erection and two coats of final paint of approved shade after installation.
20. Erection of equipment shall be carried out in a workmanlike manner without causing any hindrance to the work of other contractors.
21. All rotating equipment shall be mounted on suitable rubber/spring isolation mounts to minimize noise and vibration transmission.
22. Entire installation shall conform to the requirements of the lift inspector and it is the sole responsibility of the elevator supplier to get approval for the layouts and equipment and license for the operation of the elevators.
23.
 - (a) Steel ladders in the pits shall be provided by the Contractor. Light and plug points inside the elevator shaft shall be provided by the owner.
 - (c) The Contractor shall provide, at his cost, all scaffoldings required for the work.

24. TESTING & COMMISSIONING:

A contract load test under the supervision of the local authority and in the presence of Architects/Consultants shall be carried out before the elevator is handed over.

During testing, the brakes, limit switches, buffers, car safety devices shall be caused to function with the contract load in the elevator and operation of various safety devices.

- (a) The levelling gear shall be tested on load and off-load to ensure car levelling within limits.
- (b) The elevator must be tested for contract speed with full contract load.

25. TECHNICAL PARTICULARS:

Tenderer shall furnish technical particulars as per “Schedule of Technical Data” and detailed technical particulars of the equipment offered.

Summary Technical data sheets for the elevators are attached for information of the tenderers.

The Technical particulars shall include the power rating (of Motor etc.) and the projected Standard Power Consumption for all elevators.

10. ELECTRICAL EQUIPMENT AND WIRING INSTALLATION

1. Elevator

2. SCOPE :

The scope of this section comprises supply and installation of all electrical equipment such as, motors control wiring etc. Power will be supplied in the Top Landing Floor for MRL Elevators with a MCB and ELCBs as required, for the elevator. All further wiring to motors and controller hall buttons, alarm bell, car position indicators shall be provided by the elevator Contractor.

3. CODES & STANDARDS :

All electrical work carried out shall conform to the Indian Standard Codes of Practice and all equipment, drive motors etc., shall meet with the relevant Indian Standards.

4. All electrically operated equipment shall be suitable for 3 phase, 50 Hz., 4 wire supply with 415 V between phases and 240 V between phase and neutral. The voltage and frequency of supply shall be subject to variations permissible under the Indian Electricity Act & Rules.

5. WIRING :

All wires and cables shall be insulated with polyvinyl chloride base insulation rendered flame retardant and rated for 1100 Volts service and suitable for use in dry and wet locations. Makes of wires and cables shall be subject to the approval of the Architects/Consultants before use.

6. All control wiring shall be of copper conductor with insulation as above.

7. Wires and cables subject to movement and abrasion shall be protected by flexible galvanised steel conduit.

8. Travelling cables shall be of the best grades for the service and, shall originate at steel junction boxes on the car, hung so that the proper size loop may be obtained. They shall have a fire and moisture resistant outer covering and contain a steel supporting strand. Travelling cables shall be suitably suspended to relieve strains in individual conductors. Travelling cables shall be provided for telephone, signals, controls, lights, fans, alarm bell, emergency circuit etc., as required.

11.SPECIAL CONDITIONS FOR THIS CONTRACT

- 1.0 Dimensions and other measurements given in these documents and drawings should be deemed as approximate only.

The successful tenderer should in the first instance, depute a competent man to study the drawings and details at site, take accurate measurement of all details and other requirements, prepare drawings and get these approved by the Architect before commencing the work. If any co-ordination with other agencies are required for information or otherwise, this person should request for such, in writing and get them clarified before finalizing the drawings.

- 2.0 Payment shall be made for the various parameters as actually measured on completion of work.

No claim for compensation for damage or replacement or other items supplied incorrectly fabricated shall be entertained on any account

- 3.00 All materials and services shall satisfy ISI specifications, samples of these must be furnished and got approved by the Architect.

- 4.0 All scaffolding supports, hoist beams etc., directly or indirectly for the works should be provided. The client should not be called upon to provide facilities or materials other than those specifically to be agreed upon in the agreement. Responsibility for adequate electrical system for compliance with the local electrical inspectorate, preparing electrical drawings applying to get these approved by the Inspectorate, making any additions or alterations in the electrical system for such compliance without extra charge are also deemed to be covered. No separate payments for any of these shall be paid for.

- 5.0 The entire installation shall conform to the requirements of the Lift Inspector/Electrical Inspector / Local Fire authorities and it is the sole responsibility of the elevator supplier to get approval for the Layouts and equipment's and license for the operation of the elevators.

- 6.0 The details mentioned above are indicative and the contractor has to include all standard features and safety devices in the scope of supply. All such details shall be clearly enumerated in their Tender.

- 7.0 The Bidder should have proper service and maintenance facility at Trivandrum.**

7.01 The Bidder should have proper service and maintenance facility at Trivandrum

7.02 Sufficient stock of essential spare parts shall be ensured at such maintenance facility

7.03 The Bidder/Contractor has to assure spare parts supply for the elevators supplied for a minimum period of 20 years from the date of supply. No plea of obsolescence will be entertained during this period for any non-availability of spare parts and consequent down time.

7.04 **Down Time:**

(a) Response time of fault-repair calls shall be 12 hours or less and actual repair time shall not exceed 24 hours. For any period in excess, due intimation shall be given in advance.

(b) For shut down for routine/periodical maintenance, due intimation shall be given in advance for approval.

8.0 Command and Indication buttons etc. shall be as per choice of the owner and Architect.

9.01 The bidders are advised to quote for AMC of the various elevators, as specified in the respective Bill of Quantities.

The AMC amounts will also be considered for evaluation of the Bids.

However work order for AMC will be issued for each year after the expiry of the Defect Liability Period of two (2) Years as given in Clause No. 19 on page No. 26 (General Conditions of Contract).

9.02 Power rating (Motor etc.) and standard projected power consumption shall be specified by the bidder for each elevator quoted for.

10.00 Provision shall be made for the installation of IP Surveillance Cameras **inside** the Elevator Cars with suitable provision for the owner to inter connect to their security system. The quoted rate for elevators should include provision for camera installation, complete wiring and arrangement for suitable inter connection as stated above. This provision is required for the cars of all the Two Elevators. It is to be noted that the provision of Surveillance Cameras inside Elevator Cars is a statutory requirement.

**RAJIV GANDHI CENTRE FOR BIO-TECHNOLOGY
AAKULAM, TRIVANDRUM**

SITC OF PASSENGER ELEVATORS FOR HOSTEL BLOCK

DATA SHEET FOR ELEVATORS– TRACTION TYPE (WITH OUT MACHINE ROOM)

A. PASSENGER ELEVATORS

NO:OF ELEVATORS REQUIRED	Two for Hostel Block
CAPACITY (kgs)	884 Kg , (13 persons)
SPEED (mps)	1.5 Mps
RISE (m) / Travel (m)	22 M for Hostel Block
STOPS	8 Stops for Hostel Block
NAME OF FLOOR SERVED	Ground floor to 7 th floor
CONTROL/DRIVE/DOOR	AC variable Voltage variable frequency Micro Processor Based
POWER SUPPLY	400 /415 Volts (3 Phase AC)
OPERATION	Full Collective Operation
CAR GROUP	Two Duplex
MACHINE	PM Gearless (Located Inside shaft)
TRACTION MEDIA	Flat Coated Steel Belt
CAR FINISH	Stainless Steel Car 7 Vandal proof SS Panel on sides including SS return panels.
VENTILLATION	Cross flow fan
FLOORING	Granite tiles
HAND RAILS	Stainless Steel Mirror Finish Handrails on Rear Car panels
CAR DOOR FINISH	Stainless Steel # 4 (Hairline)
LANDING DOORS FINISH	Stainless Steel # 4 (Hairline)
FIRE RATED DOORS	Fire rating - 120 mins
HOISTWAY DIMENSIONS (WxD – mm)	1900mm x 2500mm for Hostel Block
CAR DIMENSIONS (W x D x H - mm)	1100 mm W X 2000 mm D X 2300 mm H
CAR & HOISTWAY DOOR TYPE	Central Opening (CO) doors
DOOR OPENING (W x H - mm)	800 mm W x 2100 mm H
DOOR OPERATOR	Automatic with full height infrared light curtain

COP	Buttons in Stainless Steel # 4 (Hairline)
CAR POSITION INDICATOR	Dot matrix Scrolling Display
HALL FIXTURES / HALL FIXTURE FACE PLATE / HALL BUTTON/ COP BUTTONS ARRANGEMENT	As per the owners Choice
STANDARD FEATURES	Anti-nuisance Car Call Protection, Independent Service (for Duplex only), Overload Device, Nudging, Emergency Firemen's Service, Emergency Car Light Unit, Infrared Curtain Door Protection, Door Time Protection, Emergency Alarm Button, Extra Door Time of Lobby & Parking, Door Open/Close Button, Manual Rescue Operation, Belt Inspection Drive, Auto Fan Cut Off, over speed protection. Hall Lantern Gong
OPTIONS REQUIRED	Intercom, ARD
SIGNALS	a) Luminous Hall Buttons with Digits Hall Position Indicators at all Floors b) Digits Car position indicators with direction indicator in each car c) One (1) No. Full Height Car operating panel with Luminous button in each car d) Over load waring Audio , Visual Indicators in car e) Hall lanterns & gong on all floors f) Full load bypass feature for landing calls g) Sealed maintenance free battery operated alarm and car light. All features in stainless steel. System should be complete with battery charge alarms, Lights etc. complete as required. h) Choice of buttons and indicators shall be as approved by the Architect.
INTERCOM & CCTV SYSTEM WITH NECESSARY PROVISION OF CABLING	Cabling and fixing Arrangement for CCTV & Intercom unit
CAR LIGHT & VENTILATION	LED light fitting with suspended perplex ceiling. Cabin type pressure fan with concealed vents. Also emergency light operation on 6V sealed maintenance free battery.
SUITABLE DEVICE FOR LOWERING OR RAISING THE CAR	Normal Cranking Mechanism during Emergency
ONE GROUND SWITCH FOR EACH ELEVATOR AT UPPER GROUND FLOOR	To be provided
FIREMAN 'S SWITCH	To be provided
FACIAL PLATE	Complete stainless steel facial plates for all fixtures
VOICE ANNOUNCIATION	Voice Announcing system shall be provide

A.R.D	Emergency battery drive complete with battery and charger shall be provided to bring Elevator automatically to nearest landing to rescue trapped passenger during power supply failure / system failure and mechanical failure.
PAINTING	All exposed metal work shall be given one shop coat of rust inhibiting paint before erection and 2 coats of final paint of approved quality and colour after erection
STEEL LADDER IN PIT	To be provided
LIGHT SUPPLY	230V, + 15%,50 Hz + 3% AC 1 phase, will be made available at a switch board in the Last Landing. The switch board shall include all switches, ELCB, Fuse etc. as per Inspectorate Standards/ IS specifications. Light/exhaust fan/plug points for the Elevator well will be provided by the owner.

The Tenderers may note that the above details are generally indicative and that they may propose (but not less) details

**RAJIV GANDHI CENTRE FOR BIO-TECHNOLOGY
AAKULAM, TRIVANDRUM**

SITC OF ELEVATORS FOR HOSTEL BLOCK

DATA SHEET FOR ELEVATORS – TRACTION TYPE (WITH OUT MACHINE ROOM)

A. FREIGHT ELEVATOR

NO:OF ELEVATORS REQUIRED	(1) One for Hostel Block
CAPACITY (kgs)	680 Kg for Hostel Block
SPEED (mps)	1 Mps
RISE (m) / Travel (m)	22 M for Hostel Block
STOPS	8 Stops for Hostel Block
NAME OF FLOOR SERVED	Ground floor to 7 th floor
CONTROL/DRIVE/DOOR	AC variable Voltage variable frequency Micro Processor Based
POWER SUPPLY	400 /415 Volts (3 Phase AC)
OPERATION	Full Collective Operation
CAR GROUP	One Car (Simplex)
MACHINE	PM Gearless (Located inside the shaft)
TRACTION MEDIA	Flat Coated Steel Belt
CAR FINISH	Stainless Steel Car 7 Vandal proof SS Panel on sides including SS return panels.
VENTILLATION	Cross flow fan
FLOORING	Granite tiles
HAND RAILS	Stainless Steel Mirror Finish Handrails on Rear Car panels
CAR DOOR FINISH	Stainless Steel # 4 (Hairline) Vandal Proof
LANDING DOORS FINISH	Stainless Steel # 4 (Hairline) Vandal Proof
FIRE RATED DOORS	Fire rating - 120 mins
HOISTWAY DIMENSIONS (WxD – mm)	1800mm x 2900mm for Hostel Block
CAR DIMENSIONS (W x D x H - mm)	1100 mm W X 1600 mm D X 2300 mm for Hostel Block
CAR & HOISTWAY DOOR TYPE	Central Opening.
DOOR OPENING (W x H - mm)	800mm x 2100 mm for Hostel Block
DOOR OPERATOR	Automatic with full height infrared light curtain

COP	Buttons in Stainless Steel # 4 (Hairline)
CAR POSITION INDICATOR	Dot matrix Scrolling Display
HALL FIXTURES / HALL FIXTURE FACE PLATE / HALL BUTTON/ COP BUTTONS ARRANGEMENT	As per the owners Choice
STANDARD FEATURES	Anti-nuisance Car Call Protection, Independent Service (for Duplex only), Overload Device, Nudging, Emergency Firemen's Service, Emergency Car Light Unit, Infrared Curtain Door Protection, Door Time Protection, Emergency Alarm Button, Extra Door Time of Lobby & Parking, Door Open/Close Button, Manual Rescue Operation, Belt Inspection Drive, Auto Fan Cut Off, over speed protection.
OPTIONS REQUIRED	Intercom, ARD
SIGNALS	a) Luminous Hall Buttons with Digits Hall Position Indicators at all Floors b) Digits Car position indicators with direction indicator in each car c) One (1) No. Car operating panel with Luminous button in each car d) Over load waring Audio , Visual Indicators in car e) Full load bypass feature for landing calls f) Sealed maintenance free battery operated alarm and car light. All features in stainless steel. System should be complete with battery charge alarms, Lights etc. complete as required. h) Choice of buttons and indicators shall be as approved by the Architect.
INTERCOM & CCTV SYSTEM WITH NECESSARY PROVISION OF CABLING	Cabling and fixing Arrangement for CCTV & Intercom unit
CAR LIGHT & VENTILATION	LED light fitting with suspended perpex ceiling. Cabin type pressure fan with concealed vents. Also emergency light operation on 6V sealed maintenance free battery.
SUITABLE DEVICE FOR LOWERING OR RAISING THE CAR	Normal Cranking device during Emergency
ONE GROUND SWITCH FOR EACH ELEVATOR AT UPPER GROUND FLOOR	To be provided
FIREMAN 'S SWITCH	To be provided
FACIAL PLATE	Complete stainless steel facial plates for all fixtures
VOICE ANNOUNCEMENT	Voice Announcing system shall be provide

A.R.D	Emergency battery drive complete with battery and charger shall be provided to bring elevator automatically to nearest landing to rescue trapped passenger during power supply failure and Mechanical failure.
PAINTING	All exposed metal work shall be given one shop coat of rust inhibiting paint before erection and 2 coats of final paint of approved quality and colour after erection
STEEL LADDER IN PIT	To be provided
LIGHT SUPPLY	230V, + 15%,50 Hz + 3% AC 1 phase, will be made available at a switch board in the Top Landing Floor. The switch board shall include all switches, ELCB, Fuse etc. as per Inspectorate Standards/ IS specifications. Light/exhaust fan/plug points for Elevator well will be provided by the owner.

The Tenderers may note that the above details are generally indicative and that they may propose (but not less) details as per their designs and quote accordingly.

**PREAMBLE TO BILL OF QUANTITIES FOR
SUPPLY, INSTALLATION, TESTING AND COMMISSIONING
OF ELEVATORS**

1.00 Introduction

The works shall be executed in accordance with the Drawings, Designs and Specifications, to satisfy the objects and requirements intended by the Owner. The electrical works shall be done by a licensed agency to comply with the rules & regulations of the Electricity Board/Electrical Inspectorate/I.E Rules.

2.00 General

- 2.01 The contractor shall furnish all labour, materials, equipment, tools appurtenances, services and temporary work to provide and complete the Supply, installation, testing and commissioning of Elevator work all in perfect working order to the satisfaction of the Owner/Consultants, Electrical Inspector, supply authorities and all concerned authorities whose permissions are necessary. The contractors' scope is inclusive of, but not limited to, the following
- 2.02 All Builders' work in connection with supports, brackets walkways etc.
- 2.03 Cutting openings, chases etc. in floors, walls and ceilings for installation and making good, after all trades are in position.
- 2.04 Provision of suitable airtight, water tight trap door as required
- 2.05 The Elevator installation shall be complete in all respects and any item not included in the specification but essential for installation and functioning of the elevator system shall be deemed to be included in the scope of the specification whether specifically mentioned in the Technical and General Specifications or not.
- 2.06 In the interest of standardization the owner reserves the right of selecting particular types and makes of materials and accessories and the contractor shall provide materials and accessories of the particular make if so required.
- 2.07 The Contractor has to include for all requirements such as scaffolding, making openings/grouting, welding, jointing materials, gaskets, nuts, bolts, screws, paint etc.
- 2.08 The owner reserves the right to award any or all the work to any agency.
- 2.09 This Schedule shall be fully priced and the extension and totals duly checked. The rates for all items shall be written in INK. The entries under amount column shall be rounded off to the nearest rupees.
- 2.10 No alteration whatsoever is to be made to the description of the items in the Schedule of Quantities unless such alteration is authorized in writing by the Owner.

Any such alterations, notes or additions, unless authorised in writing shall be disregarded when the priced offer is considered.

- 2.11 In the event of an error occurring in the amount column of the Schedules, as a result of wrong extension of unit rate and quantity, the unit rate quoted by the tenderer shall be regarded as firm and the extensions shall be amended on the basis of rates. The unit rates shall be furnished in words also to avoid ambiguity.
- 2.12 All errors in totaling the amount column and in carrying forward totals shall be corrected
- 2.13 Unless otherwise stated all measurements shall be taken in accordance with Bureau of Indian Standard latest revisions/additions
- 2.14 Any error(s) in description or in quantity or omission of items from the contract schedule shall not vitiate this contract but shall be corrected and deemed to be a variation required by the owner.
- 2.15 Storage and security of the contractor's materials and also owner's material and equipment, while in contractor's custody shall be the responsibility of the contractor.
- 2.16 **Water and electricity required for the installation and commissioning of the elevator shall be provided at one point by the owner, on chargeable basis**

3.00 Drawings and Data

Within two weeks of placement of order/letter of intent contractor shall furnish the following drawings/data for perusal by owner.

- a) General arrangement drawing of the equipment's showing plan, elevations, sectional views, mounting details, foundation plans, weights etc. details of Motor(s) and other major components.
- b) Single line and connected wiring diagram
- c) Drawing showing Layout details, clearances
- d) Bill of materials
- e) Descriptive technical catalogues, characteristic curves and technical particulars of all the various equipments offered.

4.00 Paint and finish

All metal work shall be properly cleaned and treated to inhibit rust and corrosion and applied with one coat of ready mix type zinc chromate primer and two coats of synthetic enamel paint as per shade approved by Architect. If surrounding atmosphere is specified as corrosive in Data Sheets the finishing paint shall be corrosion resisting for the type of atmosphere specified.

Painting by powder coating process shall be done wherever required as per specification

5.0 The Bidder should have proper service and maintenance facility at Trivandrum.

- 5.01 The Bidder should have proper service and maintenance facility at Trivandrum
- 5.02 Sufficient stock of essential spare parts shall be ensured at such maintenance facility
- 5.03 The Bidder/Contractor has to assure spare parts supply for the elevators supplied for a minimum period of 20 years from the date of supply. No plea of obsolescence will be entertained during this period for any non-availability of spare parts and consequent down time.

5.04 Down Time:

- (c) Response time of fault-repair calls shall be 12 hours or less and actual repair time shall not exceed 24 hours. For any period in excess, due intimation shall be given in advance.
- (d) For shut down for routine/periodical maintenance, due intimation shall be given in advance for approval.

6.00 Documents mutually complementary

The several documents forming the Contract are to be complementary to one another and in case of ambiguities/discrepancies the same shall be explained and clarified by the owner who shall clarify to the contractor in what manner the work is to be carried out.

7.00 Instruction during execution

The Consultants shall issue further drawings, details, directions and explanation collectively referred to as "Site Instructions" in regard to:

- 7.01 Variation for modification of the design, quality or quantity of works as addition or omission or substitution of any work.
- 7.02 Any discrepancies in the drawings or between the Schedule of Quantities and/or specifications/or drawings.
- 7.03 Removal from the site of any material brought by the Contractor and substitution by any other materials.
- 7.04 The dismissal from work of any person employed thereupon
- 7.05 Removal/re-examination of any work executed.
- 7.06 Opening up for inspection of any work covered up.

- 7.07 Oversight on the part of the Engineer/his assistant to disapprove any defective work or material shall not prejudice the owner/consultant thereafter to disapprove such work or material and to order pulling down, replacement, removal, breaking up or reconstruction.
- 8.00 The contractor shall make his own arrangements for the engagement of all labour and shall be responsible for regulation of their service conditions, work conditions, in conformity with all Acts, Regulations, Rules or order of competent authority under relevant laws in force during the pendency of the contract.
- 9.00 Contractor shall indemnify the owner from all claims relating to the workers/staff/sub-contractor/salaries, wages, overtime, leave provident fund, medical facilities, gratuity, bonus or any other claim as applicable and stipulated in any statutory provision, rules or order of competent authority.
- 10.00 All materials so far as procurable shall be of reputed make in the category of manufacture, bear the stamp of quality of the B.I.S wherever applicable. The contractor shall furnish upon the request of Owner/Consultants documentary proof, test certificates etc relevant to such materials.
- 11.00 Pricing**
- a) Rate quoted shall hold good for work at any depth below ground and for all heights above ground level and shall include provision of proper scaffolding, centering, shuttering etc.
 - b) Rate quoted shall include making openings or chases, grouting, welding, and making good the same to rough ground as directed by Engineer-in-charge.
 - c) Reinforcement work and water proofing work shall not be damaged. Repairing of the same if demanded due to any damages shall be got done by the specialised agencies engaged for the work, at the risk and cost of the party responsible for such damages.
 - d) On completion of erection, the contractor shall clean all the equipment thoroughly and inspect the entire installation for correctness of alignment, completeness of installation and furnish report on completion and completeness of erection. Thereafter pre-commissioning tests such as insulation readings, running and load tests etc shall be conducted and results furnished to the Architect.
- 12.00 Completion Drawings**
- 12.01 The contractor shall submit the written approval of the installation by different statutory authorities such as Electricity Board Authorities, Electrical inspectorate, lift inspector in respect of the different components of the installation and commission the system before asking for the Virtual Completion Certificate.
- 12.02 The contractor shall furnish set of drawings "As erected" and approved by different statutory authorities in approving the work in its entirety and completion. Getting approval from statutory government authority is responsibility of contractor.

12.03 In case the capacity/Rating/Performance of the equipment established during the performance test, fall below 1.5% of the contract capacity/ratings, the contractor shall pay compensation for each shortfall in capacity/rating on prorata cost of the system. The owner reserves his right to reject such equipment.

13.00 Entire works including material supplied by the Owner for erection by the contractor shall be insured at contractor's cost in the joint names of the owner and contractor, and the policy deposited with the owner, before commencement of the work.

14.00 Safety Earthing

14.01 Entire earthing shall be done with copper strip/copper wire of various sizes as specified.

14.02 All equipment not intended to be live shall have an effective connection to earth in accordance with Indian Electricity Rules and IS:3043.

15.00 Scope of Work

15.01 Preparation of requisite drawings for prior approval of Electrical Inspector/lift inspector and subsequently arrange for inspection, submitting test reports, to obtain permission for commissioning.

15.02 The Tenderers should note that they have to carry out rectification of all defects, wherever necessary without any charge during the defect liability period of 24 (Twenty Four) months from the date of Virtual Completion.

The quoted rate shall remain firm for the period of 60 (Sixty) days from the date of opening of the priced Bid; and the SITC work has to be completed in all respects within 3(Three) months, as specified.

15.03 Material and workmanship shall be strictly as per tender specification. Approved makes of materials are to be used.

16.00 Testing & Commissioning

A contract load test under the supervision of the local authority and in the presence of Architects/Consultants shall be carried out before the elevator is handed over.

During testing, the brakes, limit switches, buffers, car safety devices shall be caused to function with the contract load in the elevator and operation of various safety devices.

(a) The leveling gear shall be tested on load and off-load to ensure car leveling within limits.

(b) The elevator must be tested for contract speed with full contract load.