TECHNICAL & COMMERCIAL BID

DOCUMENTS

FOR

Supply, Assemble, Erection, Commissioning, Testing & Licensing of Elevators (02 nos).**Turnkey Project. Tender no - IITM/EM/29/2012**

At Proposed CCCR office Building at Indian Institute of Tropical Meteorology, Dr. Homi Bhabha Road, Pashan,

Pune 411008, Maharashtra State

Issued To

M/s.

Issuing Authority

Ravindra Bankar
Mechanical Engineer
Ph.:+91-20-25904355
Cell: 09765390965
E-mail: ravindra@tropmet.res.inCell: 08390021464

Jnanesh
Electrical Engineer,
Electrical Division,
Ph.:+91-20-25904355
E-mail:jnanesh@tropmet.res.in

CONTENTS

SECTION I : INVITATION FOR BIDS (IFB)

Indian Institute of Tropical Meteorology.

Dr. Homi Bhaha Road, Pashan, Pune 411008.

SECTION I - INVITATIONS FOR BIDS (IFB)

Indian Institute of Tropical Meteorology, Dr. Homi Bhaha Road, Pashan, Pune, 411008. has proposed Turnkey Supply, assemble & erection & commissioning of Elevator at proposed CCCR office Building at Indian Institute of Tropical Meteorology, Dr. Homi Bhaha Road, Pashan, Pune, 411008 and intends to invite sealed Item Rate Bids for Supplying, installation, testing and commissioning of 10 passengers, MRL lifts at proposed CCCR Office Building at IITM- Pashan, Pune.

Indian Institute of Tropical Meteorology, Dr. Homi Bhaha Road, Pashan, Pune/ 411008, invites Bids only from Bidders for Supply, assemble and erection &commissioning of MRL lifts at proposed CCCR Office Building at IITM.

Bids may be purchased from Indian Institute of Tropical Meteorology, Dr. Homi Phaba Road, Pashan, Pune, 411008, from 16.10.12 to 05.11.12 for a **non-refundable fee** as indicated, in the form of cash or Demand Draft on any scheduled Bank payable at Pune in favour of The Director, Indian Institute of Tropical Meteorology, Pune.

Bids must be accomplished by Earnest Money of the amount specified for the work in the table below, payable at Pune and drawn in favor of Indian Institute of Tropical Meteorology. Bid security will have to be in any one of the forms as specified in the Bidding document and shall have to be valid for 120 (One twenty) days beyond the validity of the bid.

Turnkey Bids must be delivered to the Indian Institute of Tropical Meteorology, Dr. Homi Bhaha Road, Pashan, Pune 411008, in sealed separate envelope super subscribing "Technical Bid for Elevators“ & “Commercial Bid for Elevators “with name of work & due date on or before

07.11.12 (1300 Hrs). **The technical & commercial bid should be submitted in different envelope. First Technical bid will be opened. The qualified bidders in technical bid shall have to give presentation of their product to Client, Architect & PMC. The date of commercial bid opening will be intimated to only qualify vendors in technical bid + presentation after evaluation of technical bids + presentation.**

Also the Director of IITM, Pune reserves the absolute right to reject any or all the bids/ tenders solely based upon the' past unsatisfactory performance by the bidder/bidders, the opinion/ decision of the IITM, Pune regarding the same being final and conclusive.

Name of Work	**EMD (Rs)**	**Cost Of Document (Rs)**	**Period of Completion**
Supplying, installation, testing and commissioning of 2 passengers, lifts having contract speed of 0.5 mps – 1.0 mps serving different floor in the lift as per detailed specifications enclosed as under.	**70000/-** (Rupees Seventy Thousand only.) (Interest Free.)	**1000/-** (Rupees One Thousand Only.) (Non - refundable)	120 days (Four Months) from LOI

SECTION II : NOTICE TO TENDERERS AND GENERAL INSTRUCTIONS

SECTION II - NOTICE TO THE TENDERERS AND GENERAL INSTRUCTIONS

Sealed Turnkey tenders are invited from the reputed lift vendors for Supplying, installation, testing and commissioning of 10 passengers, MRL lifts having contract speed of 0.5 mps - 1.0mps serving different floor in the lift as per detailed specifications enclosed as under. Location of Lifts: In the proposed CCCR Office Building at IITM, Pashan, Pune.

Tender documents can be obtained from the Office of the Administrative Officer, Indian Institute of Tropical Meteorology, Dr. Homi Bhaha Road, Pashan, Pune, 411008,on Submission of DD from any Nationalized bank in favor of Director IITM Pune / Cash of Rupees One Thousand only each (RS. 1000.00) [non-refundable] on any working day between 16.10.12 To 05.11.12

Technical & commercial Bid

a) Complete with all tender documents, including schedule of rates, duly signed and stamped on all pages with Earnest Money Deposit.
b) Covering letter and all other enclosures to tenders shall be submitted.
c) Schedule of rates duly signed and stamped on all pages.
d) The rates quoted shall be inclusive of all taxes & duties.

1. Tenderers should quote their rates both in figures and in words. In case of difference between figures & words, quote in words shall be considered. The bill of quantities must be fully priced and the total of each sub-head shall be carried over to the abstract page. In case of Arithmetical calculations, Outer vertical column amount shall be considered.

2. Each tenderer shall furnish Earnest Money Deposit of Rupees 70,000.00 (Rs. Seventy Thousand Only) by a Demand Draft Drawn in

favor of The Director, Indian Institute of Tropical Meteorology, Pune.' with the tender. The drafts will be sent back to the unsuccessful tenderers after award of the work and without any interest. Tenders without earnest money shall be rejected. The earnest money shall be retained in the case of the successful tenderer and shall not carry any interest.

3. In the case of the successful tenderer, the Earnest Money will be either adjusted against Security deposit to be deposited at the time of agreement or shall be refunded on completion of agreement and deposition of security deposit by the successful tenderer.

4. A schedule of approximate quantities for various items accompanies this tender. It shall be definitely understood that the IITM/PMC do not accept any responsibility for the correctness or completeness of this schedule in respect of items and quantities and this schedule is liable to alteration by omission, deductions or additions at the discretion of the IITM and the PMC without affecting the term of the contract.

5. The work is required to be carried out on a **'**Turnkey basis' covering a warranty of satisfactory performance as per standard laid for a minimum period of two year. The quoted priced cover entire work and services. We have try and listed most of the items for completion of project. If some item not considered in specification & required to complete the job then bidder must consider the costing of the same in turnkey quote. No appraisal for extra payment for such items will entertain.

6. The tenders shall acquire themselves with site conditions and survey the allocated area before submitting the tender.

7. The contract is Turn Key contract. So quantity variations do not come in

to picture. The Owner reserves the right to increase or decrease the scope of the Work on any or all items or to change the nature of the Work involved in any or all items or to completely delete any items of the Work at any time under the Contract. The Contractor shall not be entitled to claim for loss of anticipated profits, for mobilization of additional resources, or for any other such reason on account of these change orders.

8. There are two MRL lifts .The BOQ for these two lifts are different. Contractor should fill and submit this two separate BOQ's. Director IITM has reserves the right to consider both the lifts or limit the Elevator to one number, depending upon the requirement.

9. The Contract shall be a Turnkey Basis which includes design, drawing, construction, erection, testing and commissioning of the MRL lift. The Contractor shall be entitled to payment, in Indian Rupees, of no more than the contract as stated in the Letter of Award, in consideration of the work performed and completion of the work.

10. Timely completion of the works is the essence of this contract and the time of completion must be strictly adhered to as specified.

11. The tenderer shall complete the annexed "Form of Tender" and fill in the rates and amounts in the "Schedule of Quantities" He shall sign and date the tender documents in the spaces provided for the purpose. All pages of the document shall be signed and stamped. The tenderer shall initial each page of the Schedule of Quantities.

12. The tender shall be signed by a person or persons so authorized by the tenderer.

13. The tender form must be filled in English and all entries made by hand

and written in ink. All corrections should be attested by the tenderer with his dated initials as many times as the corrections occur.

14. The contractor shall not in any case, after acceptance of a contract rate, be paid any extra charges for lead involved in transport of materials to site of work, erection and hire of T & P sheds for materials, royalty for any items etc. or for any increase in price of materials or for any increase in wages of labor or for any other reasons whatsoever. All taxes including octroi, toll, duties or sales tax on Work Contract Tax, royalty, Work Contract Tax, Service Tax on Labor and or material. Value added Tax or any other tax etc. shall be payable by the contractor and no claim whatsoever in this respect shall be entertained.

15. Tenderers shall separately mention in their forwarding letter the percentage of vat and service tax they have considered while quoting rates.

16. The following specialized works shall be carried out only by specialist reputed firm / manufacturer after the approval of Architect / PMC / Client.

17. The tender shall accompany the following information and schedules With Technical & commercial Bid -:

    a) A tentative program showing the tenderer's proposed sequence of operations together with the estimated time for each activity.
    b) Schedule of proposed sub-contractors.
    c) List of completed work similar in nature and magnitude to that covered in this tender

18. Income Tax and Sales Tax clearance certificate should be attached it the Tender Documents.

19. The tenderer, whether he submits this tender or not, shall treat the details of the document as secret and confidential. In case the tenderer does not tender, he shall return the documents on the ‘date fixed for receiving the tender.

20. After acceptance of the tender, the tenderer shall sign the necessary contract papers within 15 days of the above intimation. In case of delay, the earnest money may be forfeited and the tender cancelled or the contract enforced as per terms of the tender and invitation of tender and the tenderer shall thus be bound even though the formal agreement has not been executed and signed within the time by the tenderer.

21. Tenders shall remain valid for acceptance for a period of 120 days (Four Months) from the date of opening of the tenders.

22. The Director, Indian Institute of Tropical Meteorology, Pune, reserves the right of rejecting all or any of the tenders, without assigning any reason and does not bind itself to accept the lowest tender or to pay the expenses incurred in the preparation of the tender, or for any other reason thereof.

23. Any further information can be obtained on application in writing to IITM.

24. Submission of Tender: The tender shall be submitted as per the procedure mentioned above.

25. Vendor should not add / incorporate any condition, term or clause while quoting the tender. Such tenders will be disqualified.

26. IITM will not agree or bound to any condition or terms proposed by vendor before & after LOI

Signature of Tenderer

Seal of Tenderer

Date:

Address:

SECTION III - LETTER OF OFFER

SECTION III - LETTER OF OFFER

(Note: Appendix hereto forms a part of this letter of offer)

To,

Dear Sir,

I/We do hereby tender for the execution of the work specified in the tender written memorandum within the time specified, at the rate specified therein and in accordance in all respects with the specifications, designs, drawings and Special Conditions of Contract and specifications issued-

Memorandum

[a]General Description:	Supplying, installation, testing and commissioning of 2 passengers lifts at Indian Institute of tropical Meteorology, Pune
[b] Earnest Money :	Rs. Seventy Thousand Only. : [RS. 70,000.00]
[c] Security Deposit :	5 % of the Contract Value.
[d] Time allowed for the works:	120 days after LOI issued by IITM.

I/We hereby distinctly and expressly declare and acknowledge that before the submission of my/our tender I/We have carefully followed the general instructions and read the detailed specifications and schedule of quantities and clearly understood all the conditions of contract. I/We have also seen the location where the said work Is to be done and made such investigations of the work required as to enable me/us to complete the work successfully.

I/We enclose herewith a Demand Draft No. ---------- forRS.70,000/- (Rs. Seventy Thousand Only) duly certified from the bank as

good for payment as Earnest Money not to bear interest.

Should this tender be accepted in whole or in a part, I/We hereby agree to abide by and fulfill all the terms and conditions annexed hereto. If I/We fail to commence the work specified in the above memorandum I/We agree that my/ our earnest money shall stand forfeited absolutely to the Employer otherwise the said earnest money shall be retained by the employer, towards total security deposit mentioned against column [c] of the above memorandum. I/We also agree to the balance retention money being deducted from my/our bills in accordance with the conditions of contract.

I/We agree to keep the offer open for 120 days from the date of opening the tender.

Yours faithfully,

SEAL Signature of Contractor

Complete Address:

Date: ----------

APPENDIX TO LETTER OF OFFER

Sr. No.	Description	Remarks
1.	Security Deposit	5% of the Contract value. In form of Bank Guarantee from a Nationalized Bank. Shall be refunded after completion of works and settlement of final bills.
2.	Retention Money	10 % of amount Shall be retained for defect liability period, (Two Year) from the date of completion of the project.
3.	Defects Liability Period	24 months from the date of virtual completion from the Institute/PMC.
4.	Period of Commencement	D.O.C. from the date of LOI
5.	Time of Completion	Entire work under contract to be completed in four calendar months (120 days)
6.	Penalty Clause	1% per week to maximum limited up to 10 % of contract value beyond due date.

Place:

Date:

Seal: [Signature of Tenderer]

SECTION IV - SPECIAL CONDITIONS OF CONTRACT

SECTION IV - SPECIAL CONDITIONS OF CONTRACT

1) Sealed tenders should be addressed to The Administrative Officer, Indian Institute Of Tropical Meteorology., Dr. Homi Bhaha Road, Pashan, Pune411008,
2) No tender will be received after 1300 hours on 07.11.12under any circumstances whatsoever.
3) Indian Institute of Tropical Meteorology, [referred to as "The IITM/The Client"] do not bind themselves to accept or reject any or all the tenders, either in whole or in part without assigning any reasons.
4) Within Fifteen days of the receipt of intimation from the IITM of the acceptance of his/ their tender, the successful tenderer shall be bound to implement the contract by signing an agreement in accordance with the draft agreement and the schedule of conditions, but the written acceptance by the IITM of a tender will constitute a binding agreement between the IITM and the person so tendering whether such formal contract is or is not subsequently entered into.
5) The successful tenderer shall, within 15 days [Fifteen days] of the receipt of letter of acceptance, furnish a Bank Guarantee from a Nationalized Bank, of an amount equal to five percent of the contract amount as a security deposit for the execution. And this 5 % amount in form of Bank Guarantee shall form total Security deposit for the due fulfillment of the contract. The Security deposit shall be refunded only after successful completion of works.
6) The successful tenderer/contractor must not assign the contract, nor sublet any portion of the contract, except with the written consent of the Institute / PMC.
7) Electric Power: The contractor shall make his own arrangement for electrical power by applying and taking temporary construction power from MSEDCo Ltd. It is the responsibility of the contractor to maintain the D.G. Set including cost of fuel, maintenance etc. complete.
8) Water: The IITM shall provide construction water at one location. The contractor shall take water from this location including conveying, all leads and lifts, transportation, storage by making temporary tanks, putting pumps for supply, electrical" installation etc. complete at his own cost. In

case of IITM is unable of supplying water due to any reason, contractor has to arrange water at- his own.

9) A schedule of probable quantifies in respect of each work and specifications accompany these special conditions. The schedule of probable quantities is liable to alterations by omission, deductions or additions at the discretion of the architect /PMC / Client. Each tender should contain not only the rates but also the cost of each item of work entered in a separate column and all the items should be totaled up in order to show the aggregate cost of the entire tender. All corrections in the tender schedule shall be attested by the initials of the tenderers. Corrections which are not attested may entail the rejection of the tender.

10) All items of works given in the schedule of quantities shall be executed in strict accordance with the relevant specifications read in conjunction with appropriate Indian Standard Specifications.

11) Successful completion of items specified in BOQs is inclusive of cost of material, labour, manpower, tools and plants. The tender should include all charges for double scaffoldings, centering materials, water and Electrical power charges, temporary plumbing, cost of cistern, hire for any tools and plants, sheds for materials, marking out and cleaning of site. The rates quoted by the tenderer in the schedule of probable quantities will be deemed to be for the finished work to be measured in situ. The rates shall be inclusive of VAT, Service Tax, sales tax, general tax. Octroi duty, S.T. on W.C.T, E.S.I., P.F. etc. or any other duty levied by any government of public bodies. The rates shall be firm and shall not be subject to exchange variations, inflation, market fluctuations, labour conditions or any conditions whatsoever.

12) The calculations made by the tenderer should be based upon probable quantities of the several items of work, which are furnished for the tenderers convenience in the schedule of probable quantities. But it must be clearly understood that the contract is turnkey contract, that neither the probable quantities nor the cost of the individual items, nor the aggregate cost of the entire tender will form part of the contract and that the employer, does not in any way assure the tenderer, or guarantee that the said probable quantities are correct, or that the work would correspond

there to.

Time shall be considered as the essence of the contract. The entire Works must be completed within four months (120 days) from the date of start.

BAR-CHART:

Contractor shall prepare bar chart and finalize the same in consultation with project consultants before mobilization advance is paid to the contractor. This bar chart will also indicate inputs from Project Consultants & Clients, Links with other works.

Following items shall be included;

a. Time required for each activity and their relationship.

b. Quantities in each activity.

c. Resource planning such as equipment & tools to be employed and manpower to be employed for each activity.

d. Cost of each activity.

e.Bar charts shall be done in M.S. Project or equivalent software and shall be available on Compact Disc (CD). The Bar chart shall be reviewed in every site meeting.

CONTRACTOR will be bound to provide the minimum resources shown in the bar chart. In case it is found at any interim stage that the PROGRESS OF WORK is slow and completion time of any activity is likely to extend beyond the target dates the CONTRACTOR will have to increase the planned resources. Provision of time will be made by the CONTRACTOR for other agencies to carry out their part of the work and such lapse of time will be considered by the CONTRACTOR in the planning schedule. No compensation will be paid for idle labour due to work of other contractors.

The attention of the tenderer is drawn to Clause pertaining to liquidated damages for delay.

13) Approval of Drawings:

As per scope of work contractor shall submit 3 sets of shop / working drawings for approval with softcopy of everything which needs to complete the work before commencement of work.

14) The successful tenderer is bound to carry out any and all items of work necessary for the completion of the job even though such items are not included in the quantities and rates. Schedule of instructions in respect of such additional items and their quantities will be issued in writing by the architect / PMC after approval of IITM.

15) The contractor shall strictly observe the rules and regulations as prescribed under Contract Labour [Regulation and Abolition] Rules in force and in accordance with the Contract Labour [Regulation and Abolition Act, 1970] and subsequent amendments if any. These will be periodically checked by the employer, and the tenderer will be fully responsible for violations.

16) The contractor shall be liable for and shall indemnify the IITM against any liability, loss, claim or proceedings whatsoever arising out of any statute or at a common law in respect of personal injury or the death of any person whosoever arising out of or in the course of or caused by the carrying out of the works, unless due to any act or neglect of the IITM or of any person for whom IITM is responsible.

17) The contractor shall maintain and shall cause any" sub-contractor to maintain:
    a) Such insurance’s as are necessary to cover the liability of the contractor or as the case may be of such sub-contractor, in respect of personal injuries or deaths arising out of or in the course of or caused by the carrying out of the work; and
    b) Such insurance’s as may be specifically required by the. Contract bills in respect of injury or damage to property real or personal arising out of or in the course of or by reason of the carrying out of the work, and caused by any negligence, omissions or default of the contractor, his servants or agents or, as the case may be of such sub-contractor, his servants or agents.

18) Retention Money 10 % of amount shall be retained for defect liability period, (Two-year) from the date of completion of the project. This shall be released on successful completion of two years with Licensing from the concerned authorities.

19) Payment Terms and Condition.

a) 70% of amount shall be released on submission of Tax invoice for the material brought on site.

b) 20% of amount shall be released after entire completion, Installation, commissioning & submission of required license for Operating / Functioning of elevators from the concerned authorities & handing over documents as mentioned.

20) Solvency certificate –The contractor should submit solvency certificate from any nationalized bank of Rs. Ten lakh and must have obtained not earlier than 01 July 2011.

21) Project Management Consultant: The term "Project Management Consultants" shall mean the person, appointed and paid by the IITM, acting under the orders of the IITM/Architects to inspect the works and coordinate the project on their behalf. The contractor shall afford such consultants every facility and assistance for Inspecting the works and materials, and for checking and measuring time and materials.

22) The Project Management Consultants, after obtaining approval, shall have power to give notice to the contractor, or to his representative, the non-approval of any work or materials, and such work shall be suspended or the use of such materials shall be discontinued until the decision of the architect is obtained. The works will, from time to time, be examined by the architect, project management consultants or the architect's representative; but such examination shall not in any way exonerate the contractor from the obligation to remedy any defects which may be found to exist at any stage of the works or after the same is completed. Subject to the limitation of this clause, the contractor shall take instructions only

from the architect/project management consultant.

23) Any dispute between contractor and nominated subcontractor shall be referred to PMC and PMC shall take decision on such dispute within two weeks and such decision shall be binding on all parties.

24) Any dispute between PMC and contractor shall be referred to IITM and decision of IITM shall be final and binding on all parties.

.

Date:

[Signature of Tenderer]

Witness:

Name and Address:

[Seal of the tenderer]

SECTION V - SPECIFICATIONS OF WORKS

SECTION V –a) SPECIFICATIONS for LIFT installation and supply.

1.0 Management and Co-ordination

SCHEDULE OF QUANTITIES		
Name of Work: Proposed CCCR Office Building at IITM, Pashan Pune. Turnkey Supply, installation, testing and commissioning of passenger MRL lifts.		
Quality Assurance - All works shall be performed in accordance with the latest Edition of the IS-14655 Parts 1,2,3,4,5. IS 14671. IS 2147 & IS 2332. And such state & local codes as may be applicable		
S.No	**Description**	
	MRL Passenger Lifts - Supplying, installation, testing & commissioning of 2 MRL passenger lifts having contract speed of 0.5 mps - 1.0 mps serving different floors in the lift as per detailed specifications & drawings enclosed as under. Including liecening & statutory approval shall to be taken from the concerned Authority. Contractor shall do the site visit before submit the filled tender to IITM	
A	**Basic**	
1	No of lifts	Two (2)
2	Lift designation	Low Rise
3	Lift shaft lay out	Architectural drawing
4	Capacity	10 Passengers
5	No of stops	Office wing lift - 4. Admin wing lift - 3
6	No of opening at front	All at front
7	No of opening at rear	Nil
8	Speed	0.5 mps – 1.0 mps
9	Floor serve	Office wing lift – Basement, Gr, 1, 2. Admin wing lift – Gr, 1 ,2
10	Travel Height	Office wing lift – 10890 mm Admin wing lift – 7260 mm
11	Shaft Size per lift	2210mm (w) x 2080mm (d) Unfinished dimensions. Lift vendor to inspect at actual.
12	Overhead ht	5270 mm (unfinished) Lift vendor to inspect at actual.
13	Pit depth	1750 mm (Unfinished) Lift vendor to inspect at actual.

14	Lift cabin size	Preferably 1350 mm x 1300 mm x 2300mm (Ht. till false ceiling)
15	Clear entrance size	Preferably 900mm(w) x 2100 mm(h)
16	Machine Room	MRL
17	Power Characteristics	415 Volts, 3Phase, 50 Hertz, ±10%
		230 Volts, 1 Phase, 50 Hertz ±10%
B	**Equipment**	
1	Hoist Machine	Gearless Traction
2	Roping type	2:1
3	Hoist Motor	Permanent Magnet synchronous motor
4	Hoist motor insulation	Class 'F'
5	Hoist motor drive control	Variable Voltage Variable Frequency with digital closed loop velocity encoder
6	Brake system	Built in to machine electromagnetic
7	Leveling accuracy	± 4 mm at all load conditions
8	Speed variation	± 1 % of rated speed
9	Main controller	Programmable microprocessor based
9	Group controller	Not applicable
10		Simplex car group with all features
11	Door motor	Motor to achieve minimum door opening speed of 1.5m/s
12	Door drive control	Variable Voltage Variable Frequency control
13	Door controller	Programmable microprocessor based
14	Car doors type	Two panel side opening, 900mm x 2100mm on each door.
15	Door Protection	Infra-red door detector covering full height width of entrance with variable timing, nudging limited door reversal.
16	Landing doors type	Two panel side opening, 900mm x2100mm
17	Car and Landing sills	Polished hard aluminum extrusion with non-slip groove
18	Counterweight	Cast iron fillers fitted in steel channel frame of

		size and numbers as per manufacturers standard
19	Car and cwt. guide rails	Machined guide rails of suitable size and fish plates
20	Car and cwt. guide shoes	Shoes as per manufacturer. Spring loaded swivel types are preferred.
21	Load compensation	Not applicable.
C	**Safety Features**	
1	Emergency manual	Provision for manually releasing of brake built in to hoist machine or in lift lobby controller.
2	Car safety	Flexible guide clamp type.
3	Over speed protection	Over speed governor at shaft.
4	Landing door lock safety	Emergency door unlocking device with key.
5	Landing door lock	Electromechanical
6	Door fire protection	One(l) hour
7	Safety buffers	Oil buffers / Spring buffers / Concrete buffers. Oil Buffers preferred.
8	Automatic Rescue Device	Provide for each lift. ARD/ELD
D	**Operating & Signal features**	
1	Car	Stainless Steel hair line finish.
		1 nos COP's arranged integrally with car front return panel and side panel at low level for Handicap 3mm thick plate consisting of:-
		a. Micro press self-illuminating floor buttons. Vendal resistance.
		b. Micro press door close/open button. Vendal resistance.
		c. Micro press door alarm button. Vendal resistance.
		e. Attendant /Normal with removable key and switch
		f. Car ventilator control switch-auto fan and light

		cut off feature.
		g. Inter communication switch/button
		h. Inbuilt speaker and microphone
		i. Capacity plate and emergency display
		j. Digital /scrolling LCD type car position indicator and directional arrows
		k. All buttons are to be of Braille type
		L. Lockable concealed service control buttons/switch box
2	Hall call station	One riser floor Braille type
	Bottom terminal landing	Micro press UP button. SS plate. Vendal resistance.
	Intermediate landing	Micro press UP/DN buttons. SS plate. Vendal resistance.
	Top terminal landing	Micro press DN button. SS plate. Vendal resistance.
3	Combined Hall position indicators-. Hall. buttons at all floors	Highly visible horizontal digital position indicator combined with Hall Button.
E	**Finishes**	
	Car	
1	Car side panels	Stainless steel Hairline finish.
2	Car Rear panel	Stainless steel Hairline finish. Mirror to be provided above railing level.
3	Car front return panels	Stainless steel Hairline finish.
4	Car transom	Stainless steel Hairline finish.
5	Car door panels	Stainless steel Hairline finish.
6	Hand rails	Stainless steel Hairline finish.
7	Flooring	Standard
8	Kick plates	8mm (thick) x 20mm (w) in Stainless Steel Hairline finish.
9	False ceiling	Standard

10	Lighting	Indirect fluorescent type of 200 lux lighting
	Landing	
1	Landing door panels	Stainless steel Hairline finish.
2	Landing entrance frames	
	At main lobby& all floors	Standard. 50x50 mm jamb. Narrow type. Stainless steel hair line finish.
F	**Other Features**	
1	Number of start per hour	180 start/stops
2	Communication system	Two way communication between car and 24 hours security desk with wiring from controller to security desk.
3	Car top inspection control	Located on car top easily accessible with common /up/dn/stop buttons
4	Car top safety barrier	On three sides of car top to as protection. 800 height.
5	Emergency car light	Battery pack for emergency light & car fan with min of 1(one)hours backup
6	Over load signal	Visual signal in car with door open feature
7	Load nonstop feature	Fully loaded car travelling not to respond hall calls
8	Anti-nuisance feature	Required
9	Car ventilation fan	Axial blow type
10	Safe landing	To bring car and open door at slow speed in the event of any malfunctioning
11	Next landing	In case doors fail to open during normal stop, lift should move to immediate next floor and open door
12	Fireman service feature	Provide fireman service feature with fireman operation.
13	Car Toe Guard	Provide as per safety standard.
14	Landing door fascia cover	Provide at all landing door as safety feature.
15	Travelling Cable	Provide moisture proof flat type travelling cable

16	Emergency Bell	Provide at ground floor
17	False call cancellation (Car Button)	If the wrong car button is pressed, it can be cancelled quickly pressing the same button again twice.
18	Energy Saving Feature	In no call condition for specific period, the car ventilation fan & light will be automatically turn off.
19	Wiring	Provide copper wiring of suitable type and serial link system
20	Warranty	24 month warranty maintenance with 24x7 call back service within 30 minutes call reporting. If lift vendor fails to provide the assistance / service within 30 min on site then he will penalize Rs.1000 per hour delay and that will be deducted from retention money.
21	AMC	Vendor should submit their separate offer for 5 Years comprehensive AMC
22	Post Completion Handing Over Documents.	a) As Built Drawings. 5 sets of hard copy + soft copy b) Installation & maintenance manuals of all equipment. c) Test & warranty certificates of all bought out items. d) Test & Commissioning certificates for all installations. e) Statutory documents required for record. f) Testing & commissioning Documents in standard forms. g) Bill of Material
G	**Car Performance**	
	Car Speed	± 1% of contract speed under any loading condition.
	Car Capacity	Safely lower, stop & hold 125% of rated load
	Car stopping zone	± 4 mm Under any loading condition
	Door Opening Time	Seconds from start to opening to fully open. Cars: 1.6 Seconds.

	Door Closing Time	Seconds from start to closing to fully closed. Cars: 1.8 Seconds.
	Car floor to floor performance time	Seconds from start of doors closing until doors are 3/4 open (1/2 open for side opening doors) & car stopped at next successive floor under any loading condition or travel direction (3.63 m typical floor height). Cars: 9.1 Seconds
	Car ride quality	a. Horizontal acceleration within car during all riding & door operation conditions not more than 15mg peak to peak in the 1-10 Hz range. b. Accel creation & Deceleration: Smooth constant & not more than 1meter/second^2 with an initial remp between 0.5 to 0.75 speed. c. Sustained Jerk: Not more than 2meters/second^3
	Airborne Noise	Measure noise level of elevator equipment during operation shall not exceed 50 dBA in lift lobbies & 60 dBA inside lift car under any condition including door operation & car ventilation exhaust blower on its highest speed.
H	**Conditions**	
		a. Power supply conditions: As supplied by MSEB. Any voltage stabilizer / UPS required should be provided by the supplier. b. Weather / Temperature / Humidity & other climatic conditions: As prevalent in Pune. c. Scaffolding: In lift vendor's scope. d. All steel structure requirements & installation such as M/C beam, fascia plates, sills, angles, channels & pit ladder is in lift vendor's scope e. Any barricade requirement: Is in lift vendor's scope.
NOTE – All stainless steel should be of 304 grade.		

[b] **IITM will provide only civil shaft for lift.** The lift contractor / vendor shall arrange, provide& install all required cranes, scaffolding, ladders, tools, tackles, plants, required civil work, structural steel work, hoistway, architraves, brick fascias/steel, painting at required location, perform all cutting of walls, floors or partitions together with any repairs made necessary thereby, including grouting of all bolts, sills, members indicator and button boxes etc., in position, guard and protect the hoistway, erection or preparation of the structure in which the elevator equipment is to be erected, including any general permit/certificate fees, provide hoisting hooks in the ceiling as per the required load &arrangements, these hooks must be certified for the required loads, extra steel if required to suit the site conditions, hoist way structure of such a design that can withstand the impact and loads resulting from the use of Elevator, template of requisite size along with template supports, arrange required power at required floor / place terminating in suitable main switches for power and light circuits with required circuit breakers, suitable earthing leads to required floor / place and other electrical protective devices necessary to meet legal code requirements, arrange light outlet point at the middle of the hoistway and a light point in the pit during the erection, electric power of the necessary characteristics to provide illumination and for operation of tools and hoists if required and current for starting, testing and adjusting the elevator, electrical work, wiring, panels etc. to install & complete the work of lift.

Note- no other agency or contractor will not do any work required to complete the lift installation, erection & commissioning. Lift contractor should consider all possibilities &requirements to complete the job.

[c]The contractor shall provide all transport for labor, materials necessary for the proper carrying on, execution and completion of the work to the satisfaction of the architects, PMC and IITM for installation of Lift.

[d**] Watchmen:** The contractor shall provide watchmen to guard the site and premises at all times at his expense and shall be responsible for the watch and ward of the contractor's / Client's materials at site.

[e] **Storage of Materials:** The contractor shall provide, erect and maintain proper sheds for the storage and protection of the Contractor's own supplied and Client's supplied materials, etc. and also for the execution of work, which may be prepared on the site. Any damage to client supplied material due to improper storage will be liability of contractor.

[f] Minors on Site:

i]No minor, as described by the concerned labour laws, shall be permitted on the work site.

ii]It is the responsibility of the tendering contractor, and not their labour contractors, to enforce all aspects of labour laws, rules and regulations that refer to minors.

[g]Scaffolding, Staging, Guardrails: The contractor shall provide scaffolding, staging, guardrails, temporary stairs which shall be required during construction. The supports for the scaffoldings, staging, guardrails and temporary stairs shall be strong, adequate for the particular situation, tied together with horizontal pieces over which planks are securely fixed. The temporary access to the various parts of the building under construction shall be rigid and strong enough to avoid any chance of mishaps. The arrangement proposed shall be subject to the approval of the architect/project manager.

1.2 Sub-Contractors

The contractor shall submit the list of the contractors which shall be subject to the approval by the architect / PMC.No part of the 'work or contract shall be sub-let to other persons unless the written authority of the architect/project management consultant is first obtained. The contractor shall allow them the use of sanitary conveniences, storage facilities for storing materials, other amenities and affording them all reasonable facilities for carrying out their contracts.

1.3 Separate Contracts

The IITM reserves the right to award other contracts in connection with this work. The contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and co-ordinate his work with theirs.

If any part of contractor's or sub-contractor's work depends for proper execution, or results, upon the work of any other contractor or sub-contractor, the contractor shall inspect and promptly report to the architect/project manager any defects in such work that render it unsuitable for such proper execution and results. His failure to so inspect and report shall constitute an acceptance of the work as fit and proper for the reception of his work, except as to defects which may develop in the other contractor's or sub-contractor's work after the executive of the work.

1.4 Claims for Extra Payment

In case of any instructions or decisions given at site, involving extra payments, or whereby the contractor may plan to claim an extra payment, it is the responsibility of the contractor to inform the architect's/ project management consultant's office at that time of the amount requested and gets a written authorization before proceeding with the work involved.

Any site modification made for expedition or simplifying work at the request of the contractor or his representatives shall not be taken as a basis for claiming an extra payment. However, if such modifications should also involve an extra charge, the rate for such modifications shall be settled in advance and an authorization obtained from the PMC/architect in writing before beginning the work involved. In the event no intimation is given, such modifications cannot be accepted as a bias for, extra charges. Rates of extra items shall be calculated as per cost of material plus cost of labour plus 15% for profits and overheads.

1.5 Payments

[a]Certificate of Payment: The contractor shall be paid by the IITM from time to time by installments under certificates to be issued by the project management Consultant to the contractor on account of work executed, in accordance with the Conditions of Contract and tender document.

1.6Deduction for Uncorrected Work

If the Architect/ PMC seems it expedient to correct work damaged or not done in accordance with the contract, an equitable deduction from the contract price shall be made therefore.

1.7Materials and Workmanship

a) All materials and workmanship are to be of the best quality of the specified type, to the entire satisfaction of the architect. The contractor shall deliver/unload materials on site only after getting clearance from the Project Management Consultant. The contractor shall immediately remove from the premises materials and/or workmanship which, in the opinion of the architects/ PMC are defective or unsuitable and shall substitute proper materials and / or workmanship at his own cost. The term approval used in connection with this contract shall mean the approval of the architect / PMC.

b) The contractor shall, if required, submit satisfactory evidence as to the kind and quality of material used/supplied by him.

c) Where special makes or brands are called for, they are mentioned as a standard. Others of equal quality may be used, provided approval is first obtained in writing from the architect/ PMC. Unless substitutions are requested in writing, and granted in writing no deviation from the specifications will be permitted. Failure to propose the substitution of any article within 30 days after the signing of the contract will be deemed sufficient cause for denial of the request for substitution.

d) The contractor shall indicate and submit evidence in writing of those materials or articles called for in the specifications that are not obtainable. Failure to indicate the above, within 5 days after the

signing of the contract, will be deemed sufficient cause for the denial of request for the extension of the contract time because of same.

e) All materials shall be delivered so as to ensure a speedy and uninterrupted progress of the work. These shall be stored so as not to cause obstruction and so as to prevent overloading of any portion of the structure, and the contractor shall be entirely responsible for damage or loss by weather or other cause.

f) Within 15 days after signing the contract, the contractor shall submit, for approval of the architect/ PMC, a complete list of all materials he and his sub-contractors propose to use in the work, of definite [standard] brand or make, which differ in any respect from those specified, also the particular brand of any article where more than one is specified as a standard. He shall also list items not specifically mentioned in the specifications but which are reasonably inferred and necessary for the completion of the work.

1.8Method of Measurement

Generally the standard methods of measurement, in accordance with the rules laid down by the Indian Standards Institution, shall be adopted. In the event of any dispute with regard to the measurement of the work executed, the decision of the architect/PMC/IITM shall be final and binding.

1.9 Time of Completion

a) Time shall be the essence of the contract and the contractor obligates himself to complete the whole of the work covered by this contract in accordance with the contract documents in the time set forth in the contract subject to any adjustment granted by the architect / PMC in writing under the conditions of contract. He shall submit to the architect / PMC periodic verified progress reports as required.

b) As soon as feasible, [after the contract has been signed] the architect/ PMC will issue a notice to the contractor designating a starting date. The time for performance of the contract shall be computed from this date, and the contractor shall commence work on the date designated

c) If the contractor should be delayed at any time in the progress of the

work by any separate contractor employed by the IITM, or by changes ordered in the work, or by strikes, lockouts, fire, unavoidable causalities or any cause beyond the contractor's control, then the time of completion shall be extended for such reasonable time as the architect / PMC may decide. Provided the contractor has in writing asked for extension of the time within 7 days of the cause of delay arising. The word "Architect" in this paragraph means Madhav Joshi And Associates. Supplementary drawings and/or detail will be issued by the architects and his engineers and his services consultants from time to time as required. The contractor shall notify the architect seven days before if such supplementary drawings and/or the information is required. If the site drawings and/or the information are not furnished within 4 days after demand, the time of completion shall be adjusted accordingly.

d) In the event of the Contractor failing to complete the job within stipulated time, the liquidated damages shall be applied as per terms and conditions of contract.

1.10 Payments Withheld

The architect / PMC may withhold or on account of subsequently discovered evidence, nullify the whole or a part of any certificate of payment to such extent as may be necessary/ to protect the IITM from loss of account of:

a) Defective work not remedied.
b) Failure of the contractor to make payments properly to subcontractor [s] or for material [s] or labour.
c) A reasonable doubt that the contract can be completed for the balance then unpaid. Here the architect's/ project management consultant's considered opinion shall be final and binding.
d) Damage to another contractor or sub-contractor.
e) Liquidated damages.

When the above grounds are removed, payments shall be made for amounts withheld because of them.

1.11 Co-ordination of Work

At the commencement of work, and from time to time, the contractor shall confer with the sub-contractors, persons engaged on separate contracts in connection with the work, and with the architect/project manager for the purpose of the co-ordination and execution of the various phases of the work.

The contractor shall ascertain from the sub-contractors and persons engaged on separate contracts, in connection with the works, the extent of all chasing, cutting and forming of all openings, holes, grooves, etc. as may be required to accommodate the various services. The contractor shall ascertain the routes of all services networks and the positions of all floor outlets, traps, etc., in connection with the installation of plant and services and arrange for the construction of work accordingly. The breaking and cutting of completed work must be avoided.

1.12 Labor's Housing

At the discretion of the employer, space free of cost may be provided for laborers' housing. Contractor will have to make necessary arrangements to erect sheds, drinking water for labour, power, transportation, food etc. at no extra cost to the employer. The contractor has to clear the site and make it clean at the time of leaving the site after completion of work.

1.13 Protection of Trees, Shrubs and nearby Buildings

Trees, shrubs and nearby buildings designated by the architect/ PMC shall be protected from damage during the course of the work and the earth level shall not be changed within one meter of such trees. Wherever necessary, such trees and shrubs shall be protected by means of temporary fencing. And wherever necessary, transplantation is done as directed by Architect.

1.14 Protection of Cleaning

a) The contractor shell protect and preserve the works from any damage and/or accidents, providing any temporary roofs, window and door coverings, boxing, or other construction as required. It is assumed the contractor has assessed this cost in quoting rates. If he does not provide such protection then the architect may direct him to do so at his

own cost. This protection shall be provided for all property adjacent to the site as well as on the site.

b) The contractor shall properly clean the work as it progresses and shall remove all rubbish and debris from the site from time to time as Is necessary and as directed. On completion, the contractor shall ensure that the premises and/or site are cleaned, surplus materials debris, sheds, etc. removed, areas under floors cleared of rubbish, gutters and drains cleared doors and sashes eased, locks and fastenings oiled, keys clearly labeled and handed to the project management consultant, so that the whole is left fit for immediate occupation and/or use and to the satisfaction of the architect/ PMC.

1.17 Virtual Completion

[a] The work shall not be considered as completed until the PMC / architect has certified in writing that the work has been virtually completed and the Defects Liability Period shall commence from the date of such certificate.

1.18 Reference to Indian Standard Specifications

Whenever an Indian Standard Specification/Government of Maharashtra, Public Works and Housing Department "Standard Specifications," Volume I and II covers a material or method of work involved in this contract, the latest ISI specification will hold good, together with up-to-date amendments.

1.19Storage:

All goods and products covered by these specifications shall be procured well in advance and stored as specified.

SCHEDULE OF QUANTITIES

Name of Work - CCCR Office Building Supplying, installation, testing & commissioning of MRL Passenger Lifts

OFFICE WING LIFT

MRL Passenger Lifts - Supplying, installation, testing & commissioning of 2 MRL passenger lifts having contract speed of 0.5 mps - 1.0 mps serving different floors in the lift as per detailed specifications & drawings enclosed as under. Including liecening & statutory approval shall to be taken fron the concerned Autority. Contractor shall do the site visit before submit the filled tender to IITM.

Quality Assurance -

All works shall be performed in accordance with the latest Edition of the IS-14655 Parts 1,2,3,4,5. IS 14671. IS 2147 & IS 2332. And such state & local codes as may be applicable

SR.NO.	Description		Qty	Unit	Rate	Amount
A	Basic					
1	No of lifts	One(1)				
2	Lift designation	Low Rise				
3	Lift shaft lay out	Architectural drawing				
4	Capacity	10 PASSENGER				
5	No of stops	4				
6	No of opening at front	All at front				
7	No of opening at rear	Nil				
8	Speed	0.5 mps - 1.0 mps				
9	Floor serve	Basement ,Gr, 1, 2 Or B, G, 1, 2				
10	Travel Height	10890 mm				
11	Shaft Size per lift	2210mm (w) x 2080mm (d) Unfinished dimensions. Lift vendor to inspect at actual.				
12	Overhead ht	5270 mm (unfinished) Lift vendor to inspect at actual.				
13	Pit depth	1750 mm (Unfinished) Lift vendor to inspect at actual.				
14	Lift cabin size	Preferably 1350 mm x 1300 mm x 2300mm (Ht. till false ceiling)				
15	Clear entrance size	900mm(w) x 2100 mm(h)				
16	Machine Room	MRL				
17	Power Characteristics	415 Volts 3 Phase 50 Hz. A.C ± 10%				
		230 Volts 1 Phase 50 Hz. A.C ± 10%				

B	**Equipment**					
1	**Hoist Machine**	Gearless Traction				
2	**Roping type**	2:1				
3	**Hoist Motor**	Permanent Magnet synchronous motor				
4	**Hoist motor insulation**	Class 'F'				
5	**Hoist motor drive control**	Variable Voltage Variable Frequency with digital closed loop velocity encoder				
6	**Brake system**	Built in to machine ,electromagnetic				
7	**Leveling accuracy**	± 4 mm at all load conditions				
8	**Speed variation**	± 1% of rated speed				
9	**Main controller**	Programmable microprocessor based				
9	**Group controller**	Not applicable				
10	**Type of operation control**	Simplex car group with all features full collective				
11	**Door motor**	Motor to achieve minimum door opening speed of 1.5m/s				
12	**Door drive control**	Variable Voltage Variable Frequency control				
13	**Door controller**	Programmable microprocessor based				
14	**Car doors type**	Two panel side opening 900mm x 2100mmon each door.				
15	**Door Protection**	Infra red door detector covering full height & width of entrance with variable timing , nudging ,limited door reversal.				
16	**Landing doors type**	Two panel side opening 900mm x2100mm				
17	**Car and Landing sills**	Polished hard aluminum extrusion with non slip grooves				
18	**Counter weight**	Cast iron fillers fitted in steel channel frame of size and numbers as per manufacturers standard				
19	**Car and cwt guide rails**	Machined guide rails of suitable size and fish plates				
20	**Car and cwt guide shoes**	Shoes as per manufacturar. Spring loaded swivel type are prefferted.				
21	**Load compensation**	Not applicable				
C	**Safety Features**					
1	**Emergency manual**	Provision for manually releasing of brake built in to hoist machine or in lift lobby controller.				
2	**Car safety**	Flexible guide clamp type				
3	**Over speed protection**	Over speed governor at shaft				
4	**Landing door lock safety**	Emergency door unlocking device with key				
5	**Landing door lock**	Electromechanical				
6	**Door fire protection**	One(1) hour				
7	**Safety buffers**	Oil buffers/Spring buffers/Concrete buffers. Oil Buffers preffered.				
8	**Automatic Rescue Device**	Provide for each lift. ARD/ELD				
9	**Firemans operation**	Press fireman switch or building's fire sensors activation, all call are cancelled. All cars immediately return to specific evacuation floor & the doors open to facitate the safe evacuation for passengers.				

D	**Operating &Signal features**					
	Car	Stainless Steel Hair line finish.				
1		1nos COP's arranged integrally with car front return panel and side panel at low level for Handicap 3mm thick plate consisting of:-				
		a. Micro press self illuminating floor buttons. Vendal resistance.				
		b. Micro press door close/open button. Vendal resistance.				
		c. Micro press door alarm button. Vendal resistance.				
		e .Attendant /Normal with removable key and switch.				
		f. Car ventilator control switch-auto fan and light cut off feature.				
		g. Inter communication switch/button				
		h. Inbuilt speaker and microphone				
		i. Capacity plate and emergency display				
		j, Digital /scrolling LCD type car position indicator and directional arrows				
		k. All buttons are to be of Braille type				
		L. Lockable concealed service control buttons/switch box				
2	**Hall call station**	One riser floor. Braille type				
	Bottom terminal landing	Micro press UP button. SS plate.Vendal resistance.				
	Intermediate landing	Micro press UP/DN buttons. SS plate.Vendal resistance.				
	Top terminal landing	Micro press DN button. SS plate.Vendal resistance.				
3	**Combined Hall position indicator& Hall buttons at all floors**	Highly visible horizontal digital position indicator combined with Hall Button				
E	**Finishes**					
	Car					
1	**Car side panels**	Stainless Steel Hair line finish.				
2	**Car Rear panel**	Stainless Steel Hair line finish. Mirror to be provided above railing level.				
3	**Car front return panels**	Stainless Steel Hair line finish.				
4	**Car transom**	Stainless Steel Hair line finish.				
5	**Car door panels**	Stainless Steel Hair line finish.				
6	**Hand rails**	Stainless Steel Hair line finish.				
7	**Flooring**	Standard				
8	**Kick plates**	8mm(thick) x 120mm(w) in Stainless Steel Hair line finish.				
9	**False ceiling**	Standard				
10	**Lighting**	Indirect fluorescent type of 200lux lighting				
	Landing					
1	**Landing door panels**	Stainless Steel Hair line finish.				
2	**Landing entrance frames**					
	At main lobby& all floors	Standard. 50x50 mm Jamb. Narrow type. Stainless Steel Hair line finish.				

F	**Other Features**					
1	**Number of start per hour**	180 start/stops				
2	**Communication system**	Two way communication between car and 24 hours security desk. With wiring from controller to security desk.				
3	**Car top inspection control**	Located on car top easily accessible with common /up/dn/stop buttons				
5	**Car top safety barrier**	On three sides of car top to as protection. 800 height.				
6	**Emergency car light**	Battery pack for emergency light & car fan with min of one hours charging				
8	**Over load signal**	Visual signal in car with door open feature				
9	**Load non stop feature**	Fully loaded car travelling not to respond hall calls				
10	**Anti nuisance feature**	Required				
11	**Car ventilation fan**	Axial blow type				
12	**Safe landing**	To bring car and open door at slow speed in the event of any malfunctioning				
13	**Next landing**	In case doors fail to open during normal stop, lift should move to immediate next floor and open doors				
14	**Fireman service feature**	Provide fireman service feature with fireman operation				
15	**Car Toe Guard**	Provide as per saftey standard.				
16	**Landing door facia cover**	Provide at all landing door as saftey feature.				
17	**Travelling Cable**	Provide moisture proof flat type travelling cable				
18	**Emergency Bell**	Provide at ground floor				
19	**False call cancellelation (Car Butt**	If the wrong car button is pressed, it can be cancelled quickely pressing the same button again twice.				
20	**False call cancellelation**	If the wrong car button is pressed, it can be cancelled quickely pressing the same button again twice.				
21	**Energy Saving Feature**	In no call condition for specific period, the car ventilation fan & light will be automatically turn off.				
22	**Wiring**	Provide copper wiring of suitable type and serial link system				
23	**Warranty**	##				
24	**AMC**	Vendor should submit their separate offer for 3 Years Comprehenssive AMC				
25	**Post Completion Handing Over Documents.**	##				

G	**Car Performance**					
1	**Car Speed**	± 1% of contract speed under any loading condition.				
2	**Car Capacity**	Safley lower, stop & hold 125% of rated load				
3	**Car stopping zone**	± 4 mm Under any loading condition				
4	**Door Opening Time**	Seconds from start to opening to fully open. Cars : 1.6 Seconds.				
5	**Door Closing Time**	Seconds from start to closing to fully closed. Cars : 1.8 Seconds.				
6	**Car floor to floor performance time**	Seconds from start of doors closing until doors are 3/4 open (1/2 open for side opening doors) & car stopped at next successive floor under any loading condition or travel direction (3.63 m typical floor height). Cars: 9.1 Seconds				
7	**Car ride quality**	a. Horizontal acceleration within car during all riding & door operation conditions not more than 15mg peak to peak in the 1-10 Hz range				
		b. Accel creation & Deceleration: Smooth constant 7 not more than 1meter/second² with an initial remp between 0.5 to 0.75 speed.				
		c. Sustained Jerk: Not more than 2meters/second³				
8	**Airborne Noise**	Measure noise level of elevator equipment duringoperation shall not exceed 50 dBA in lift lobbies & 60 dBA inside lift car under any condition including door operation & car ventilation exhaust blower on its highest speed.				
H	**Conditions**					
		a. Power supply conditions: As supplied by MSEB. Any voltage stabilizer / UPS required should be provided by the supplier.				
		b. Weather / Temperature / Humidity & other climatic conditions : As prevalent in Pune.				
		c. Scaffolding: In lift vendor's scope.				
		d. All steel structure requirements & installation such as M/C beam, facia plates, sills, angles, channels & pit ladder is in lift vendor's scope.				
		e. Any barricade requirement: Is in lift vendor's scope.				
Note - All stainless steel should be of 304 grade						

SCHEDULE OF QUANTITIES

Name of Work - CCCR Office Building Supplying, installation, testing & commissioning of MRL Passenger Lifts

ADMIN WING LIFT

MRL Passenger Lifts - Supplying, installation, testing & commissioning of MRL passenger lifts having contract speed of 0.5 mps - 1.0 mps serving different floors in the lift as per detailed specifications & drawings enclosed as under. Including liecening & statutory approval shall to be taken fron the concerned Autority. Contractor shall do the site visit before submit the filled tender to IITM

Quality Assurance -

All works shall be performed in accordance with the latest Edition of the IS-14655 Parts 1,2,3,4,5. IS 14671. IS 2147 & IS 2332. And such state & local codes as may be applicable

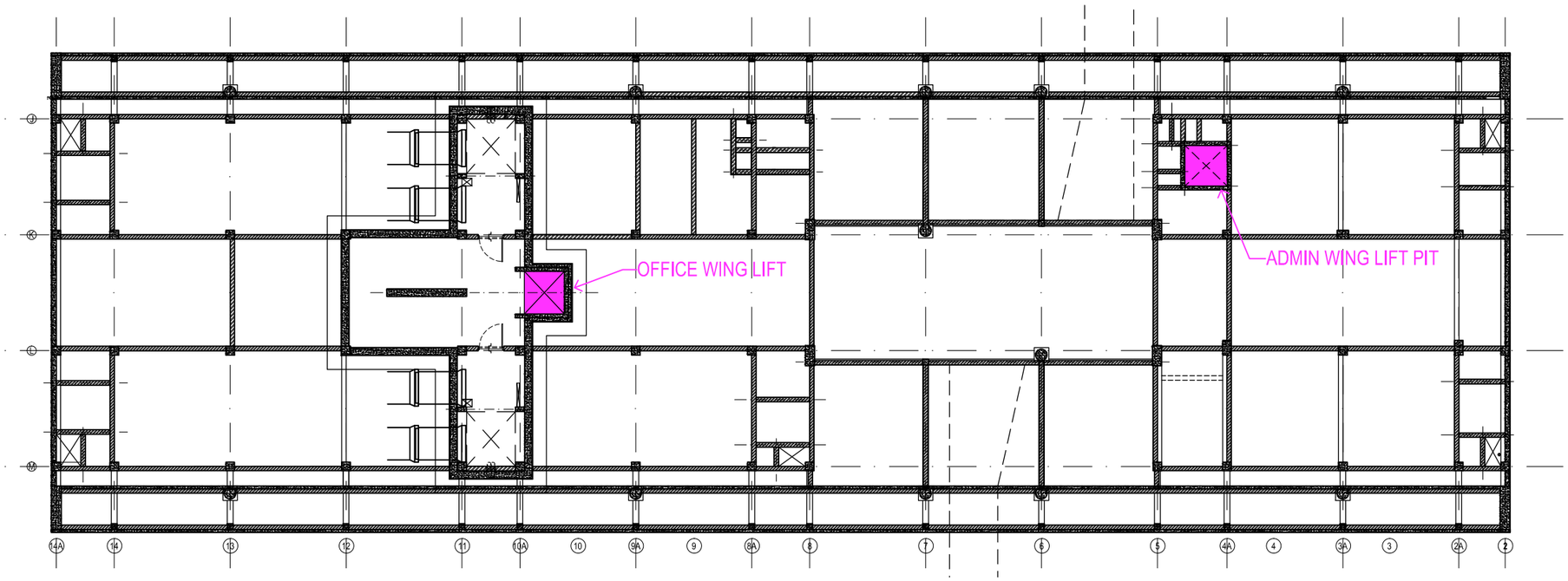
SR.NO.	Description		Qty	Unit	Rate	Amount
A	Basic					
1	No of lifts	One(1)				
2	Lift designation	Low Rise				
3	Lift shaft lay out	Architectural drawing				
4	Capacity	10 PASSENGER				
5	No of stops	3				
6	No of opening at front	All at front				
7	No of opening at rear	Nil				
8	Speed	0.5 mps - 1.0 mps				
9	Floor serve	Gr, 1, 2 Or G, 1, 2				
10	Travel Height	7260 mm				
11	Shaft Size per lift	2210mm (w) x 2080mm (d) Unfinished dimensions. Lift vendor to inspect at actual.				
12	Overhead ht	5270 mm (unfinished) Lift vendor to inspect at actual.				
13	Pit depth	1750 mm (Unfinished) Lift vendor to inspect at actual.				
14	Lift cabin size	Preferably 1350 mm x 1300 mm x 2300mm (Ht. till false ceiling)				
15	Clear entrance size	900mm(w) x 2100 mm(h)				
16	Machine Room	MRL				
17	Power Characteristics	415 Volts 3 Phase 50 Hz. A.C ± 10%				
		230 Volts 1 Phase 50 Hz. A.C ± 10%				

B	**Equipment**					
1	**Hoist Machine**	Gearless Traction				
2	**Roping type**	2:1				
3	**Hoist Motor**	Permanent Magnet synchronous motor				
4	**Hoist motor insulation**	Class 'F'				
5	**Hoist motor drive control**	Variable Voltage Variable Frequency with digital closed loop velocity encoder				
6	**Brake system**	Built in to machine ,electromagnetic				
7	**Leveling accuracy**	± 4 mm at all load conditions				
8	**Speed variation**	± 1% of rated speed				
9	**Main controller**	Programmable microprocessor based				
9	**Group controller**	Not applicable				
10	**Type of operation control**	Simplex car group with all features full collective				
11	**Door motor**	Motor to achieve minimum door opening speed of 1.5m/s				
12	**Door drive control**	Variable Voltage Variable Frequency control				
13	**Door controller**	Programmable microprocessor based				
14	**Car doors type**	Two panel side opening 900mm x 2100mmon each door.				
15	**Door Protection**	Infra red door detector covering full height & width of entrance with variable timing , nudging ,limited door reversal.				
16	**Landing doors type**	Two panel side opening 900mm x2100mm				
17	**Car and Landing sills**	Polished hard aluminum extrusion with non slip grooves				
18	**Counter weight**	Cast iron fillers fitted in steel channel frame of size and numbers as per manufacturers standard				
19	**Car and cwt guide rails**	Machined guide rails of suitable size and fish plates				
20	**Car and cwt guide shoes**	Shoes as per manufacturar. Spring loaded swivel type are prefferted.				
21	**Load compensation**	Not applicable				
C	**Safety Features**					
1	**Emergency manual**	Provision for manually releasing of brake built in to hoist machine or in lift lobby controller.				
2	**Car safety**	Flexible guide clamp type				
3	**Over speed protection**	Over speed governor at shaft				
4	**Landing door lock safety**	Emergency door unlocking device with key				

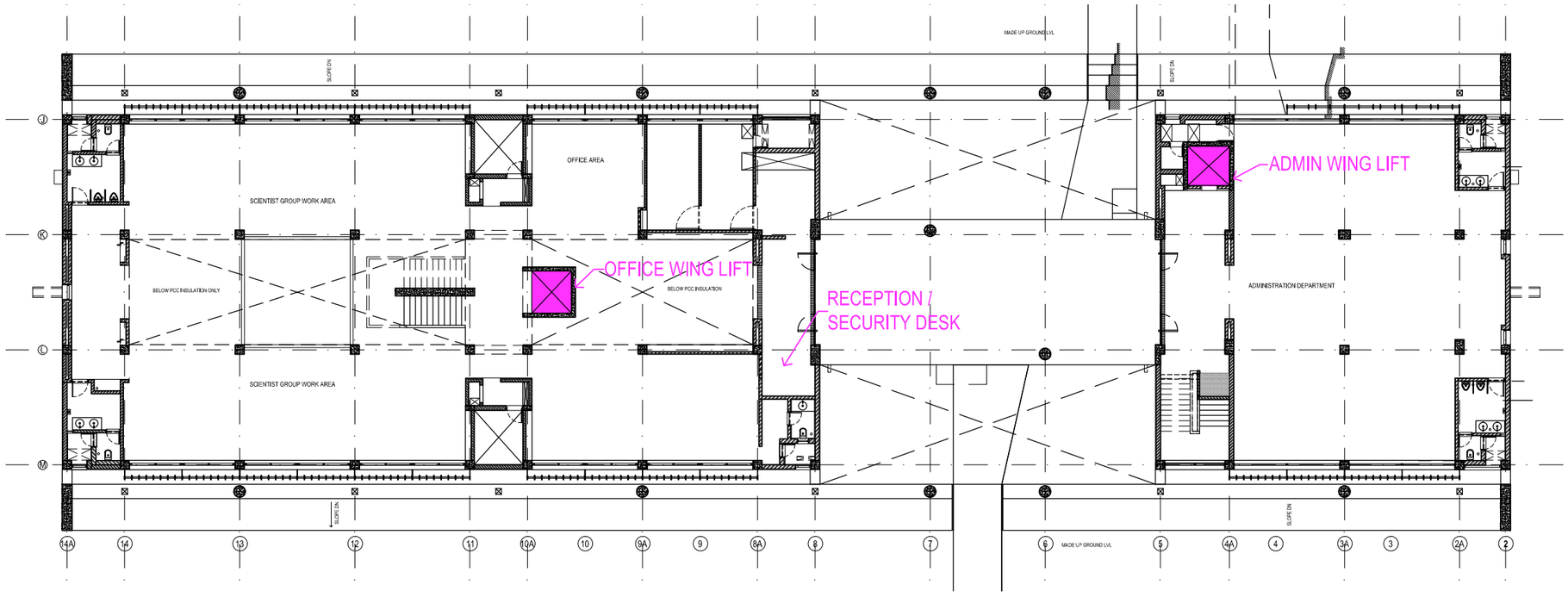
5	**Landing door lock**	Electromechanical				
6	**Door fire protection**	One(1) hour				
7	**Safety buffers**	Oil buffers/Spring buffers/Concrete buffers. Oil Buffers preffered.				
8	**Automatic Rescue Device**	Provide for each lift. ARD/ELD				
9	**Firemans operation**	Press fireman switch or building's fire sensors activation, all call are cancelled. All cars immediately return to specific evacuation floor & the doors open to facitate the safe evacuation for passengers.				
D	**Operating &Signal features**					
	Car	Stainless Steel Hair line finish.				
1		1nos COP's arranged integrally with car front return panel and side panel at low level for Handicap 3mm thick plate consisting of:-				
		a. Micro press self illuminating floor buttons. Vendal resistance.				
		b. Micro press door close/open button. Vendal resistance.				
		c. Micro press door alarm button. Vendal resistance.				
		e .Attendant /Normal with removable key and switch.				
		f. Car ventilator control switch-auto fan and light cut off feature.				
		g. Inter communication switch/button				
		h. Inbuilt speaker and microphone				
		i. Capacity plate and emergency display				
		j, Digital /scrolling LCD type car position indicator and directional arrows				
		k. All buttons are to be of Braille type				
		L. Lockable concealed service control buttons/switch box				
2	**Hall call station**	One riser floor. Braille type				
	Bottom terminal landing	Micro press UP button. SS plate.Vendal resistance.				
	Intermediate landing	Micro press UP/DN buttons. SS plate.Vendal resistance.				
	Top terminal landing	Micro press DN button. SS plate.Vendal resistance.				
3	**Combined Hall position indicator& Hall buttons at all floors**	Highly visible horizontal digital position indicator combined with Hall Button				

E	**Finishes**					
	Car					
1	**Car side panels**	Stainless Steel Hair line finish.				
2	**Car Rear panel**	Stainless Steel Hair line finish. Mirror to be provided above railing level.				
3	**Car front return panels**	Stainless Steel Hair line finish.				
4	**Car transom**	Stainless Steel Hair line finish.				
5	**Car door panels**	Stainless Steel Hair line finish.				
6	**Hand rails**	Stainless Steel Hair line finish.				
7	**Flooring**	Standard				
8	**Kick plates**	8mm(thick) x 120mm(w) in Stainless Steel Hair line finish.				
9	**False ceiling**	Standard				
10	**Lighting**	Indirect fluorescent type of 200lux lighting				
	Landing					
1	**Landing door panels**	Stainless Steel Hair line finish.				
2	**Landing entrance frames**					
	At main lobby& all floors	Standard. 50x50 mm Jamb. Narrow type. Stainless Steel Hair line finish.				
F	**Other Features**					
1	**Number of start per hour**	180 start/stops				
2	**Communication system**	Two way communication between car and 24 hours security desk. With wiring from controller to security desk.				
3	**Car top inspection control**	Located on car top easily accessible with common /up/dn/stop buttons				
4	**Car top safety barrier**	On three sides of car top to as protection. 800 height.				
5	**Emergency car light**	Battery pack for emergency light & car fan with min of one hours charging				
6	**Over load signal**	Visual signal in car with door open feature				
7	**Load non stop feature**	Fully loaded car travelling not to respond hall calls				
8	**Anti nuisance feature**	Required				
9	**Car ventilation fan**	Axial blow type				
10	**Safe landing**	To bring car and open door at slow speed in the event of any malfunctioning				
11	**Next landing**	In case doors fail to open during normal stop, lift should move to immediate next floor and open doors				
12	**Fireman service feature**	Provide fireman service feature with fireman operation				
13	**Car Toe Guard**	Provide as per saftey standard.				
14	**Landing door facia cover**	Provide at all landing door as saftey feature.				
15	**Travelling Cable**	Provide moisture proof flat type travelling cable				
16	**Emergency Bell**	Provide at ground floor				
17	**False call cancellelation (Car Button)**	If the wrong car button is pressed, it can be cancelled quickely pressing the same button again twice.				
18	**False call cancellelation**	If the wrong car button is pressed, it can be cancelled quickely pressing the same button again twice.				
19	**Energy Saving Feature**	In no call condition for specific period, the car ventilation fan & light will be automatically turn off.				
20	**Wiring**	Provide copper wiring of suitable type and serial link system				
21	**Warranty**	24 month warranty maintenance with 24x7 call back service within 30 minutes call reporting. If lift vendor fails to provide the assistance / service within 30 min on site then he will penalize Rs.1000 per hour delay and that will be deducted from retention money.				

22	**AMC**	Vendor should submit their separate offer for 5 Years Comprehensive AMC				
23	**Post Completion Handing Over Do**	##				
G	**Car Performance**					
1	**Car Speed**	± 1% of contract speed under any loading condition.				
2	**Car Capacity**	Safley lower, stop & hold 125% of rated load				
3	**Car stopping zone**	± 4 mm Under any loading condition				
4	**Door Opening Time**	Seconds from start to opening to fully open. Cars : 1.6 Seconds.				
5	**Door Closing Time**	Seconds from start to closing to fully closed. Cars : 1.8 Seconds.				
6	**Car floor to floor performance time**	Seconds from start of doors closing until doors are 3/4 open (1/2 open for side opening doors) & car stopped at next successive floor under any loading condition or travel direction (3.63 m typical floor height). Cars: 9.1 Seconds				
7	**Car ride quality**	a. Horizontal acceleration within car during all riding & door operation conditions not more than 15mg peak to peak in the 1-10 Hz range				
		b. Accel creation & Deceleration: Smooth constant 7 not more than 1meter/second² with an initial remp between 0.5 to 0.75 speed.				
		c. Sustained Jerk: Not more than 2meters/second³				
8	**Airborne Noise**	Measure noise level of elevator equipment duringoperation shall not exceed 50 dBA in lift lobbies & 60 dBA inside lift car under any condition including door operation & car ventilation exhaust blower on its highest speed.				
H	**Conditions**					
		a. Power supply conditions: As supplied by MSEB. Any voltage stabilizer / UPS required should be provided by the supplier.				
		b. Weather / Temperature / Humidity & other climatic conditions : As prevalent in Pune.				
		c. Scaffolding: In lift vendor's scope.				
		d. All steel structure requirements & installation such as M/C beam, facia plates, sills, angles, channels & pit ladder is in lift vendor's scope.				
		e. Any barricade requirement: Is in lift vendor's scope.				
Note - All stainless steel should be of 304 grade						



BASEMENT / PLINTH LEVEL PLAN
(1:250)



GROUND FLOOR PLAN
(1:250)

NOTES -
1. REFER DWGS - 102LIFT RO, 102LIFT RO , 104LIFT RO FOR MORE DETAILS
2. ALL DIMENSIONS GIVEN IN DRAWING SHOULD BE VERIFIED BY VENDOR ON SITE

REVISION R0
DRAWING NO. 101LIFT
PROJECT NO. 0510
SCALE AS SHOWN
DATE
DEALT
CHECKED

DRAWING TITLE
MRL LIFT
KEY PLANS

TENDER DRAWING

PROJECT
PROPOSED CCCR BUILDING AT PASHAN, PUNE
CLIENT
INSTITUTE OF TROPICAL METEREOLOGY, PUNE
ARCHITECTS
MADHAV JOSHI AND ASSOCIATES
ARCHITECTS AND URBAN PLANNERS
FLAT NO. 08, MATRUSMURTY APT. PLOT NO 92, MAYUR COLONY, KOTHRUD, PUNE.

ISSUED TO
NO. DATED ISSUED TO

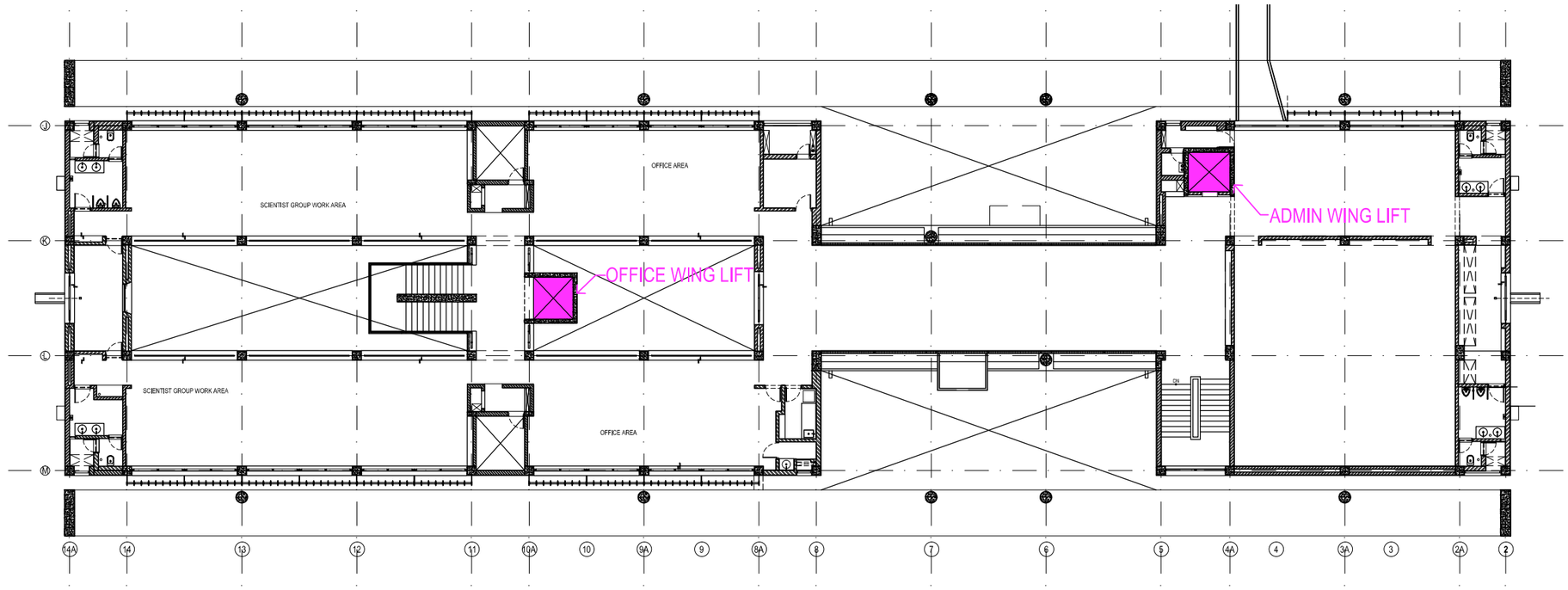
REVISIONS
NO. DATE DETAILS

SYMBOLS:
HIGHER LEVEL
LOWER LEVEL
LEVEL

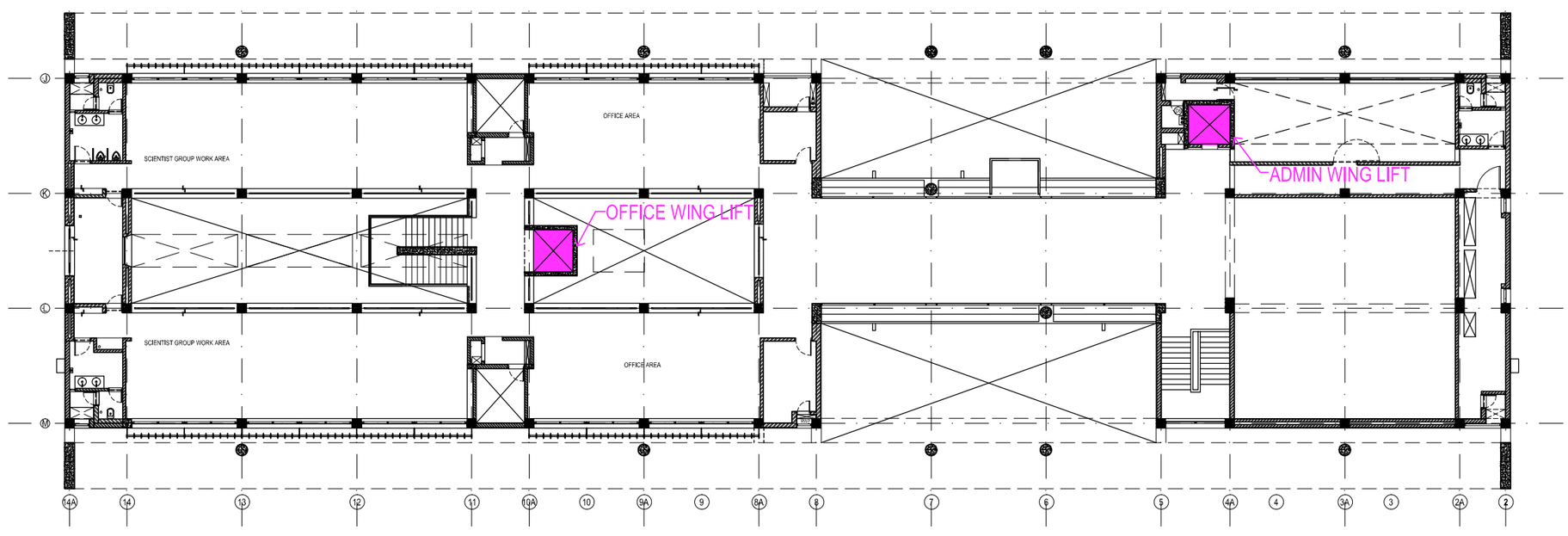
CONSULTANTS
STRUCTURE - STRUCTURE: G.A.BHILARE
CONSULTANTS PVT. LTD.
SERVICES - CONSULTANTS:
1.ABHIYANTA (ELECTRICAL)
2.R.S. KULKARNI (HVAC)
DRAWING REFERENCES:

CONSULTANTS	DRG NO.	REV NO	DATE
STRUCTURAL			
SERVICES			

IMPORTANT
1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL LEVELS ARE IN METERS, UNLESS OTHERWISE MENTIONED.
2. THE DRAWING IS NOT TO BE SCALED
3. THIS DRAWING IS TO READ IN CONJUNCTION WITH OTHER RELEVANT ARCHITECTURAL / ENGINEERING DRAWINGS.
4. DISCREPANCIES IF ANY SHOULD BE IMMEDIATELY BROUGHT TO THE NOTICE OF THE ARCHITECT



FIRST FLOOR PLAN
(1:250)



SECOND FLOOR PLAN
(1:250)

NOTES -
1. REFER DWGS - 101LIFT RO, 103LIFT RO , 104LIFT RO FOR MORE DETAILS
2. ALL DIMENSIONS GIVEN IN DRAWING SHOULD BE VERIFIED BY VENDOR ON SITE

REVISION R0
DRAWING NO. 102LIFT
PROJECT NO. 0510
SCALE AS SHOWN
DATE
DEALT
CHECKED

DRAWING TITLE
MRL LIFT
KEY PLANS

TENDER DRAWING

PROJECT
PROPOSED CCCR BUILDING AT PASHAN, PUNE
CLIENT
INSTITUTE OF TROPICAL METEREOLOGY, PUNE
ARCHITECTS
MADHAV JOSHI AND ASSOCIATES
ARCHITECTS AND URBAN PLANNERS
FLAT NO. 08, MATRUSMURTY APT., PLOT NO 92, MAYUR COLONY, KOTHRUD, PUNE.

ISSUED TO
NO. DATED ISSUED TO

CONSULTANTS
STRUCTURE : STRUCTURE: G A BHILARE CONSULTANTS PVT. LTD
SERVICES: CONSULTANTS:
1.ABHYANTA (ELECTRICAL)
2.R.S. KULKARNI (HVAC.)

DRAWING REFERENCES:

CONSULTANTS	DRG NO.	REV NO	DATE
STRUCTURAL			
SERVICES			

SYMBOLS:
HIGHER LEVEL
LOWER LEVEL
LEVEL

REVISIONS

NO.	DATE	DETAILS

IMPORTANT :
1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL LEVELS ARE IN METERS, UNLESS OTHERWISE MENTIONED.
2. THE DRAWING IS NOT TO BE SCALED.
3. THIS DRAWING IS TO READ IN CONJUNCTION WITH OTHER RELEVANT ARCHITECTURAL / ENGINEERING DRAWINGS.
4. DISCREPANCIES IF ANY SHOULD BE IMMEDIATELY BROUGHT TO THE NOTICE OF THE ARCHITECT

OFFICE WING LIFT

BASEMENT PLAN
(1:75)

GROUND FLOOR PLAN
(1:75)

FIRST FLOOR PLAN
(1:75)

SECOND FLOOR PLAN
(1:75)

ADMIN WING LIFT (NO BASEMENT)

GROUND FLOOR PLAN (1:75)

FIRST FLOOR PLAN (1:75)

SECOND FLOOR PLAN (1:75)

PASSENGER ELEVATOR SPECIFICATION

	OFFICE WING	ADMIN WING
FLOOR	FLOOR HEIGHT (FFL TO FFL IN MM)	FLOOR HEIGHT (FFL TO FFL IN MM)
FIRST FL. LVL TO SECOND FL. LVL	3630	3630
GROUND FL. LVL TO FIRST FL. LVL	3630	3630
BASEMENT LVL TO GROUND FL. LVL	3630	NO BASEMENT

ELEVATOR TYPE	PASSENGER ELEVATOR
UNITS	2
CAPACITY (KG)	10 PERSONS
SPEED (MPS)	0.5 - 1.0 mps
SHAFT SIZE (W x D)	2210MM X 2080MM (UNFINISHED)
PIT DEPTH	1750 MM (AS PER MANUFACTURER)
OVERHEAD IN	5270 MM (AS PER MANUFACTURER)
DOOR OPENING	900 x 2100 mm

NOTES -

1. REFER DWGS - 101LIFT RO, 102LIFT RO , 104LIFT RO FOR MORE DETAILS 2. ALL DIMENSIONS GIVEN IN DRAWING SHOULD BE VERIFIED BY VENDOR ON SITE

IMPORTANT
1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL LEVELS ARE IN METERS, UNLESS OTHERWISE MENTIONED.
2. THE DRAWING IS NOT TO BE SCALED
3. THIS DRAWING IS TO READ IN CONJUNCTION WITH OTHER RELEVANT ARCHITECTURAL / ENGINEERING DRAWINGS.
4. DISCREPANCIES IF ANY SHOULD BE IMMEDIATELY BROUGHT TO THE NOTICE OF THE ARCHITECT

CONSULTANTS
STRUCTURE - STRUCTURE: G.A.BHILARE CONSULTANTS PVT. LTD
SERVICES CONSULTANTS:
1. ABHYANTA (ELECTRICAL)
2. R.S. KULKARNI (HVAC)

DRAWING REFERENCES:

CONSULTANTS	DRG. NO.	REV.NO.	DATE
STRUCTURAL			
SERVICES			

SYMBOLS:
HIGHER LEVEL
LOWER LEVEL
LEVEL

REVISIONS			
NO.	DATE	DETAILS	

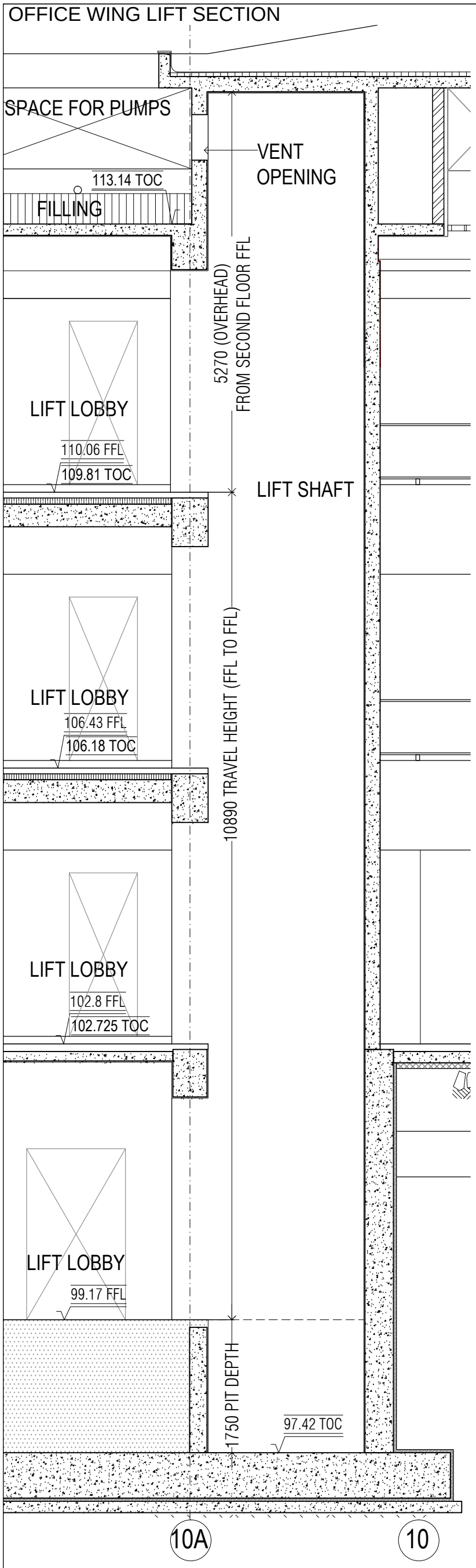
ISSUED TO			
NO.	DATED	ISSUED TO	

PROJECT
PROPOSED CCCR BUILDING AT PASHAN, PUNE
CLIENT
INSTITUTE OF TROPICAL METEREOLOGY, PUNE
ARCHITECTS
MADHAV JOSHI AND ASSOCIATES
ARCHITECTS AND URBAN PLANNERS
FLAT NO. 08, MATRUSMURTY APT, PLOT NO 92, MAYUR COLONY, KOTHRUD, PUNE.

DRAWING TITLE
MRL LIFT PLANS
DESIGN INTENT

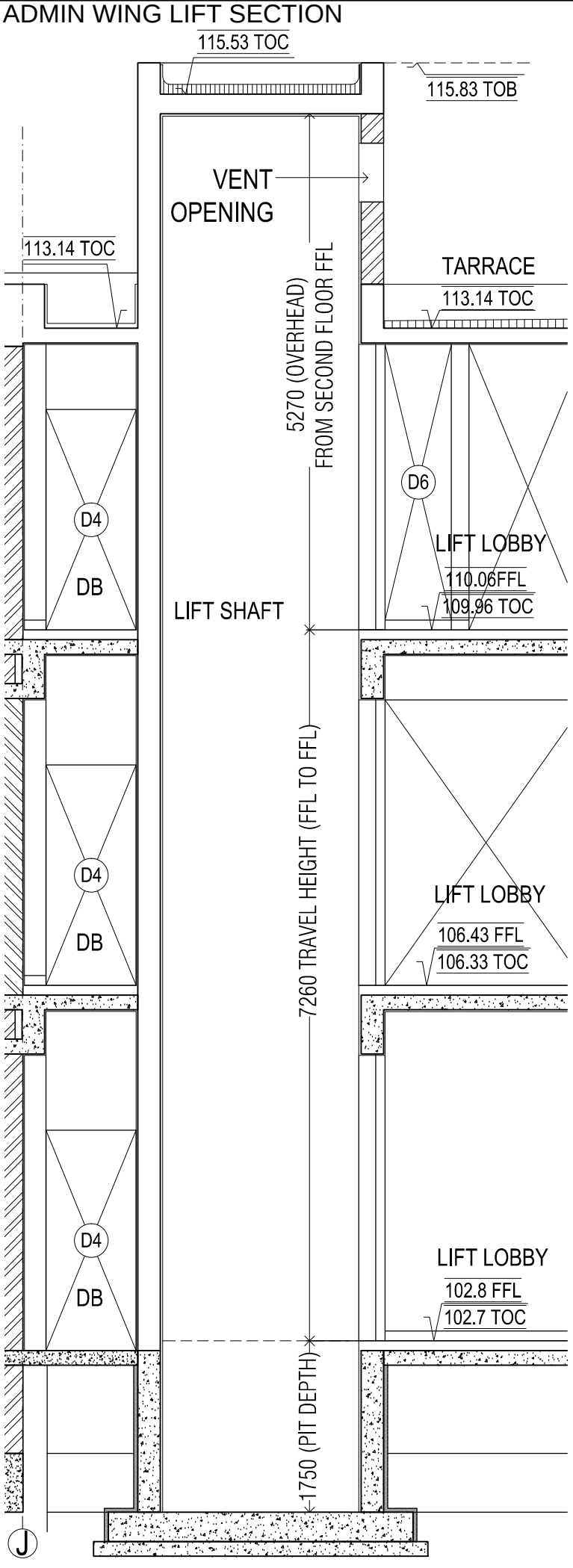
PROJECT NO.	0510
DRAWING NO.	103LIFT
REVISION	R0
SCALE	AS SHOWN
DATE	
DEALT	
CHECKED	

OFFICE WING LIFT SECTION



SECTION HH' (1:75)

ADMIN WING LIFT SECTION



SECTION FF' (1:75)

NOTES -

1. REFER DWGS - 101LIFT R0, 102LIFT R0 , 103LIFT R0 FOR MORE DETAILS
2. ALL DIMENSIONS GIVEN IN DRAWING SHOULD BE VERIFIED BY VENDOR ON SITE

REVISION	R0
DRAWING NO.	104LIFT
PROJECT NO.	0510
SCALE	AS SHOWN
DATE	
DEALT	
CHECKED	

DRAWING TITLE
MRL LIFT SECTIONS

TENDER DRAWING

PROJECT
PROPOSED CCCR BUILDING AT PASHAN, PUNE

CLIENT
INSTITUTE OF TROPICAL METEOROLOGY, PUNE

ARCHITECTS
MADHAV JOSHI AND ASSOCIATES
ARCHITECTS AND URBAN PLANNERS
FLAT NO. 08, MATRUSMURTY APT., PLOT NO 92, MAYUR COLONY, KOTHRUD, PUNE.

ISSUED TO

NO.	DATED	ISSUED TO

REVISIONS

NO.	DATE	DETAILS

SYMBOLS:
HIGHER LEVEL
LOWER LEVEL
LEVEL

CONSULTANTS
STRUCTURE - STRUCTURE:
G.A.BHILARE CONSULTANTS PVT. LTD
SERVICES CONSULTANTS:
1.ABHIYANTA (ELECTRICAL)
2.R.S. KULKARNI (HVAC)

DRAWING REFERENCES:

CONSULTANTS	DRG.NO.	REV.NO.	DATE
STRUCTURAL			
SERVICES			

IMPORTANT

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL LEVELS ARE IN METERS, UNLESS OTHERWISE MENTIONED.
2. THE DRAWING IS NOT TO BE SCALED
3. THIS DRAWING IS TO READ IN CONJUNCTION WITH OTHER RELEVANT ARCHITECTURAL / ENGINEERING DRAWINGS.
4. DISCREPANCIES IF ANY SHOULD BE IMMEDIATELY BROUGHT TO THE NOTICE OF THE ARCHITECT