



**INDIAN INSTITUTE OF TECHNOLOGY MADRAS**

**ENGINEERING UNIT**

**CHENNAI – 600 036**

**NOTICE INVITING TENDERS**

**FOR APPOINTMENT OF ARCHITECTURAL CONSULTANT**

**No: 35/ ARC / 2013 – 14**

**TECHNICAL BID – COVER 2**

**NAME OF WORK: Providing Architectural Services for the work of “Construction of 48 nos of new ‘D’ type Quarters (1 Block - Ground + 8 Floors – 6 Flats in each Floor) at IIT Madras”**

Cost of Tender Schedule	: Rs	500.00	
VAT @ 5%	Rs	20.00	
		-----	DD drawn infavour of IIT Madras payable at
Total	Rs.	525.00	Chennai to be enclosed along with Cover 1
		-----	

Last date for receipt of tender documents **13-11-2013 @ 03:00PM**

Date and Time of opening of Eligibility Document (Cover-1) **13-11-2013 @ 03:10PM**

Date and Time of opening of Technical and Financial proposals (Cover-2 and 3) will be intimated later to the eligible Architects.

Certified that this document contains 11 pages (including this page)

**SUPERINTENDING ENGINEER,  
ENGINEERING UNIT,  
ADMIN BUILDING, 3<sup>RD</sup> FLOOR,  
INDIAN INSTITUTE OF TECHNOLOGY MADRAS,  
CHENNAI – 600036.**

Certificate by the Architect:

Certified that no addition and deletion has been made to the tender documents downloaded from the IIT Madras web site.

Signature of the Architect  
Name & Seal



INDIAN INSTITUTE OF TECHNOLOGY MADRAS

CHENNAI-600036

1. Notice Inviting Tenders

No:- 35/ ARC / 2013 – 14

Technical Bid – Cover 2

**NAME OF WORK:** Providing Architectural Services for the work of “Construction of 48 nos of new ‘D’ type Quarters (1 Block - Ground + 8 Floors – 6 Flats in each Floor) at IIT Madras”

1. Sealed bids are invited, upto 3.00 pm on 13-11 - 2013 by the Superintending Engineer, Indian Institute of Technology Madras (IIT M), Chennai – 600 036 from eligible Architectural firms / individuals who have been registered with Council of Architecture and satisfying the eligibility criteria prescribed in this tender document.
2. The bid documents can be downloaded from the IIT Madras web site (<http://tenders.iitm.ac.in/>).
3. All Bids, received within the stipulated time, will be opened in the office of the Superintending Engineer, at the third floor of the Administrative building, IIT Madras after 3:10 pm on 13-11-2013 in the presence of Architects or their authorized representatives.

1.0 Procedure for submission of Bids.

Architects who desire to be appointed as consultants for the work shall submit their bids in three covers as detailed below

- 1.1 Bids must be submitted in sealed covers and should be addressed to the Superintending Engineer, Engineering Unit, Administrative Building, 3<sup>rd</sup> Floor, Indian Institute of Technology Madras, Chennai – 600 036. The name of the Architect and the name of the work and tender number must be written on all the Covers.
- 1.2 The cover containing the **Eligibility document** should be marked as “**Cover-1 - Eligibility Document**”, **Technical Bid** “should be marked as “**Cover – 2 – Technical Bid**” and the cover containing the **Financial Bid** should be marked as “**Cover – 3 Financial Bid**”. All the covers shall be put in a third cover with the name of work and Date of opening written over it.

1.3 **Cover – 1 – Eligibility Document** – shall contain the following,

- 1) Cost of tender document Rs.525/- (Cost of tender Rs.500 + VAT @ 5%) (Non-Refundable) in the form of crossed demand draft drawn in favour of Indian Institute of Technology Madras, Chennai – 600 036 and payable at Chennai. **Bid submitted without the cost of tender document will be summarily rejected.**
- 2) Duly filled and signed copy of the Eligibility document downloaded from the IIT Madras web site along with necessary documents as prescribed in the eligibility document.

1.4 **Cover – 2 - Technical Bid** – shall contain the following,

- 1) Duly signed copy of the technical bid downloaded from the IIT Madras web site.
- 3) Conceptual Drawings (Floor plans, roof plan, elevation, 3D views and sections) of the proposed building along with a report on the salient features of the design.
- 4) Scale model or 3D view of the proposed building in color printout (A3 size).
- 5) Preliminary cost estimate of the proposed building, generally as per Plinth Area Rates of Central Public Works Department (CPWD) with prevailing cost index for the building portion and market rate for specialized services.

1.4 The **Cover 3 - Financial Bid** shall contain the quoted Architectural fees for the work as a lumpsum amount and duly filled and signed copy of the Financial bid document downloaded from the IIT Madras web site.

1.5 If the bid is made by an individual, he / she shall sign it with his/her full name and his/her address shall be given. If it is made by a firm it shall be signed by a member of the firm (under the seal of the firm), who shall also enter his/her name and address. Name and address of other members of the firm shall also be indicated. If the same is made by a corporation, it shall be signed by a duly authorized officer who shall produce with the bid, satisfactory evidence of his/her authorization.

1.6 For any further clarification the Superintending Engineer of the Institute may be contacted.

## 2.0 **Receipt and opening of bids.**

2.1 The bids will be received upto 3.00 PM on the stipulated date of opening at the Office of the Superintending Engineer, Engineering Unit, Indian Institute of Technology, Madras

2.2 Bids will be opened on the same day after 3.10PM in the presence of the Architects or their authorized representatives.

2.3 Only Eligibility document will be opened on that day.

### **3.0 Power point presentation**

All Architects who will be satisfying the eligibility criteria prescribed in the eligibility document will be required to present their respective concept in a Power point presentation on a date to be intimated later. The presentation shall include all the salient features of the building, viz. its form, layout within the site constraints, conceptual details of specialized services like fire fighting and green building features etc.

### **4.0 Evaluation Procedure.**

- 4.1 The technical bids, conceptual schemes and drawings and the Power point presentation by the Architects will be evaluated by a committee for maximum 100 marks.
- 4.2 The financial bids of only those Architects who secure a qualifying mark of 70 will be opened on a date to be intimated later.
- 4.3 Un-opened Financial Bids of those Architects who failed to secure the qualifying marks shall be returned, if requested by the respective Architect.
- 4.4 The successful Architect will be selected based on Combined Quality cum Cost Based System (CQCCBS)
  - 4.4.1 Under CQCCBS, the technical proposals will be allotted weightage of 70% and the financial proposals will be allotted weightages of 30%.
  - 4.4.2 Bid with the lowest quoted amount (L1) will be assigned a financial score of 100 and other bids will be assigned scores that are inversely proportional to their quoted amount.
  - 4.4.3 The total score, both technical and financial shall be obtained by weighing the quality and cost scores and adding them up.

The calculation for arriving at the total combined score (Quality and Cost) is given below.

Marks obtained by a Bidder for the technical bid	= M
Amount quoted by the lowest bidder	= L1
Amount quoted by a Bidder	= L
Points for Financial proposal of the bidder	= (L1/L)×100 =F
Combined technical and financial score (H) of the bidder	= M×0.7+ F×0.3 =H

- 4.4.5 The combined technical and cost scores of all the bidders will be calculated as above and the bidder who secures the highest combined score H will be selected as the successful Architect.
- 4.4.6 The contract will be awarded to the successful bidder at his/her quoted /negotiated amount.
- 4.4.5 The Architect whose bid is accepted shall sign a written agreement with the IITM, Chennai.

4.4.6 The Superintending Engineer or other accepting authority of IITM reserves the right to reject any bid or all the bids without assigning any reason.

### **5.0 Validity**

The Validity period of the bids will be **Three months** from the date of opening of the Eligibility document.

### **6.0 Project Details**

<b>Sl no</b>	<b>Description</b>	<b>Scope of work</b>
1	No of Block	1 No
2	Footprint of the block	713sqm
3	Plinth area	6463sqm
4	No of Floors	Ground Plus Eight Floors
5	Ground Floor	Parking
6	First to Eighth Floor	6 flats in each floor
10	Terrace Floor	Lift Machine room, Staircase headroom , water tanks etc
11	Special services	MEP and other services as required

**The actual footprint and the layout of the building has to be planned taking into account the actual site constraints including existing trees, campus ecological constraints, service lines, roads and drains etc. The proposed site locations are shown in the Appendix 1.**

### **7.0 Scope of work**

1. Preparation of Conceptual drawings taking into account the site constraints and to be submitted at the technical bid stage.
2. Preparation of Preliminary drawings and obtaining approval of IITM and if needed from Local bodies. Any charges to paid to the local authority will be borne by IITM.
3. Preparation of 'Design basis report' for the structure as well as MEP services in the building and finalizing the designs in consultation with IITM.
4. Preparation of detailed Architectural drawings for approval of IITM.
5. Preparation of detailed structural analysis and design using computer programs like STAAD / SAP etc and preparation of detailed structural drawings in AutoCAD, duly proof checked from a reputed Educational Institutions/Research Institutions/ Government Department

engaged in building construction works with prior approval of the Indian Institute of Technology Madras.

6. Preparation of detailed design and drawings for all the Internal and External MEP services like electrical distribution, Lifts, Lightning protection System, water supply, sewage disposal, telephone and data cabling, fire fighting and design for roads and paths, etc.
7. Preparation of bill of quantities including detailed take off sheets and detailed Estimate adopting 'CPWD Schedule of rates, wherever applicable. For items of work not available in CPWD Schedule market rates may be adopted and detailed rate analysis is to be made available for such items with necessary supporting quotations obtained from the market. For all MEP services, the detailed estimates and BOQs shall be prepared based on market rates.
8. Preparation of Tender documents like NIT, PQ documents etc for call of tenders for the execution of work. The BOQs shall be prepared under the following Sub heads so that separate tenders can be called for works in these sub heads if necessary.
  - a. Civil and internal electrical works.
  - b. Firefighting.
  - d. LT Electrical distribution.
  - e. Lifts.
  - f. External developments like drainage, landscape, roads and paths, electrical substation etc.
9. Assist IITM in preparation of justification of tenders based on the prevailing market rates.
10. Approval of materials to be used in the work during the course of construction, if requested by IITM.
11. Issue of clarifications, details etc on the drawings and bid documents as and when requested by IITM.
12. Site visits / attendance in project review meetings as and when needed. No extra cost shall be paid for the same.
13. Periodic inspection and evaluation of construction works to ensure compliance with the approved drawings.
14. All drawings shall be prepared in Auto CAD including Building information modeling (BIM) using Revit software (Architectural / structural / MEP) and the soft copies should be submitted to IITM for approval. The drawings and BIM shall be submitted in editable format and not in PDF form.
15. It may be specifically noted that all 'Good for construction' drawings and details including MEP, finishes and services connected with the project should be made available at the time of call of tenders for fixing the agency for executing the work. Detailed 'Good for construction' structural drawings should be submitted with clarity on detailing of joints of structural elements including bar bending schedule.
16. No changes shall be made in the various drawings during the course of execution unless specifically desired, in writing, by IITM.

17. 'Green Building' concept in line with "GRIHA" rating system shall be incorporated in the design and it will be the responsibility of the Architect to obtain GRIHA 4 rating for the buildings. The fees for registration for GRIHA will be paid by IIT Madras.
18. Preparation and submission of "as built" drawings for the building and MEP services.
19. Any other details not mentioned above but required for satisfactory completion of the project.

## **8. Deliverables**

1. Conceptual drawings.
2. Preliminary drawings for approval of IITM.
3. Design Basis report for Structural design and all MEP services in the building.
4. Detailed drawings for the structure and MEP services.
5. Detailed estimate for the building and MEP services.
6. Tender documents for the building and MEP services.
7. The Architectural Consultant to whom the work is awarded shall submit **TWENTY FIVE (25)** copies each of all **finally approved 'Good for construction' drawings** at the time of call of tenders for fixing the agency for execution of work. If more copies of drawings are required, the Architect will arrange to supply them, on written request, at an extra cost Rs.100/- for A0/A1 sheets and Rs.50/- for A2/A3 sheets.
8. A 3D model of the approved building design with walk through should be submitted by the Architect for which no additional payment shall be made.
9. Preparation and submission GRIHA related documents, drawings, energy simulation reports, and compliance report for satisfying GRIHA 4 rating and obtaining certificate from ADaRSH. The fees for registration for GRIHA will be paid by IIT Madras.
10. **Building Information Model (BIM)** representing the geometric, visual and material details of the Architectural elements with BIM software compatible with AutoCad such as Revit Architecture / Structure / MEP shall be prepared. The model shall incorporate interior as well as exterior Architectural details of the building for visualization with finishing and joinery details in true texture and colours as far as possible. In addition, the Architectural model may be used to generate sections, elevation, plan views as well as the bill of materials. The components of the Architectural model should be designed in such a manner that it will be possible to link the components to the construction schedule and visualize the sequence & schedule of construction, working drawings and as-built drawings.
11. Five sets of "As built" drawings for the building and all MEP services with soft copy.
12. Five sets of commissioning reports and operation Manuals for all MEP services.

**9.0 Additional conditions**

1. The planning work shall not be sublet without written permission of the Superintending Engineer nor shall transfer be made to power of Attorney authorizing others to receive payment.
2. The Architect whose bid is accepted shall comply with the provisions of all Acts, Statutes, Rules, Regulations etc. of the Central and State Government/ Local body and applicable codes as the case may be and as may be applicable in this case and if necessary get himself duly registered as required by the said Acts, Statues, Rules, Regulations etc.
3. All taxes, duties which are to be deducted as per Govt.Rules shall be deducted from the bills.
4. The Consultant shall design the building in accordance with good Engineering Practice incorporating functional and efficient Architectural and Engineering design conforming to the Indian Standard codes of practices and specifications, energy saving measures etc.
5. The Consultant should furnish all the required information such as detailed estimate, ‘Good for construction’ Architectural drawings, structural drawings etc. of the project before tenders are invited and not in stages, during the progress of the work.
6. The amount quoted shall be all inclusive and nothing extra towards travel and stay or any other claim is payable.

**10.0 Time Schedule.**

The Architectural services shall be rendered in two stages.

Stage 1. – Upto the submission of tender documents including structural drawings and detailed “Good for construction” drawings for the building and MEP services.

Stage 2. – From the tendering stage to submission of ‘As Built’ drawings.

**Time schedule for submission of various details in Stage 1.**

Sl. No	Cumulative Weeks after acceptance of offer	Activities to be completed
1.	2	<ul style="list-style-type: none"> <li>▪ Preliminary Drawings and obtaining approval from IITM</li> </ul>
2.	4	<ul style="list-style-type: none"> <li>▪ Detailed Architectural drawings for approval of IITM</li> </ul>
3.	6	<ul style="list-style-type: none"> <li>▪ Detailed structural analysis and structural drawings</li> <li>▪ Bill of quantities including take off sheets and rate analysis for all market rate items.</li> <li>▪ Proof checking of structural design</li> <li>▪ Detailed estimates, BOQ and drawings for MEP &amp; HVAC services,</li> </ul>
4.	8	<ul style="list-style-type: none"> <li>▪ Tender document with ‘Good for construction’ drawings for the building</li> <li>▪ Tender documents with ‘Good for construction’ drawings for MEP services,</li> </ul>
<b>Total Time for completion of Phase I = 8 weeks</b>		



## **11.0 Payment Schedule**

a.	On submission and approval of Preliminary Architectural Drawings.	10% of the amount quoted.
b.	On submission of Detailed Architectural Drawings.	25% of the amount quoted minus payment already made.
c.	On approval of Details Architectural Drawings	30% of the amount quoted minus payment already made.
d.	Submission of detailed services drawings including design calculations wherever needed and approval to the same.	50% of the amount quoted minus payment already made.
e.	Submission of detailed Estimate, take off sheets, rate analysis and bid documents etc. for invitation of tender for building work and services and approval to the same.	60% of the amount quoted minus payment already made.
f.	Submission of detailed structural analysis, design and structural drawings, proof checking and BIM	70% of the amount quoted minus payment already made.
g.	Award of construction contract.	80% of the amount quoted minus payment already made.
h.	After 50% completion of construction work (Financial progress).	90% of the amount quoted minus payment already made.
i.	After completion of all construction works including services.	95% of the amount quoted minus payment already made.
j.	After issue of "AS BUILT" drawings and in editable electronic format and submission of GRIHA Certificate obtained	100% of the amount quoted minus payment already made.

## **12.0 Compensation for delay.**

Compensation at the rate of 0.5% of the quoted amount per week shall be recovered for delay in completing stage 1 activities as mentioned in Para 10, subject to a maximum of 10% of the quoted amount. Any justified delay on the part of the Architect and delay in issue of approval by IITM will be taken into account while deciding the compensation. The decision of the Engineer in charge in deciding the compensation will be final and binding on the Architect.

## **13.0 Termination of Agreement.**

The Agreement may be terminated at any time by either party by giving a written notice of one month to the other. In the event of the termination of the agreement by IITM, the Architect shall not be entitled to any compensation or damages by reason of such termination but only to the fees for the services actually rendered. In the event of termination of contract by the Architect no further payment other than that has /have already been made shall be paid.

## **14.0 Transfer of interest.**

So long as the Agreement subsists, neither the Employer nor the Architect shall assign, sublet or transfer their interest in this Agreement, without the written consent of the other.

**Letter of Transmittal**

Date:

**To  
The Superintending Engineer  
IITM, Chennai.**

Sir,

I / We do hereby submit my / our bid in two covers and if this bid is accepted undertake to provide Architectural Consultancy Services for the proposed work of **Providing Architectural Services for the work of “Construction of 48 nos of new ‘D’ type Quarters (1 Block - Ground + 8 Floors – 6 Flats in each Floor) at IIT Madras”**.

I / We fully understand that the written agreement to be entered into between me / us and IIT Madras shall be the foundation of the rights of both the parties and the agreement for the consultancy services shall not be deemed to be complete until the agreement has first been signed by me / us and then by the officer authorized to enter into contracts on behalf of IIT, Madras.

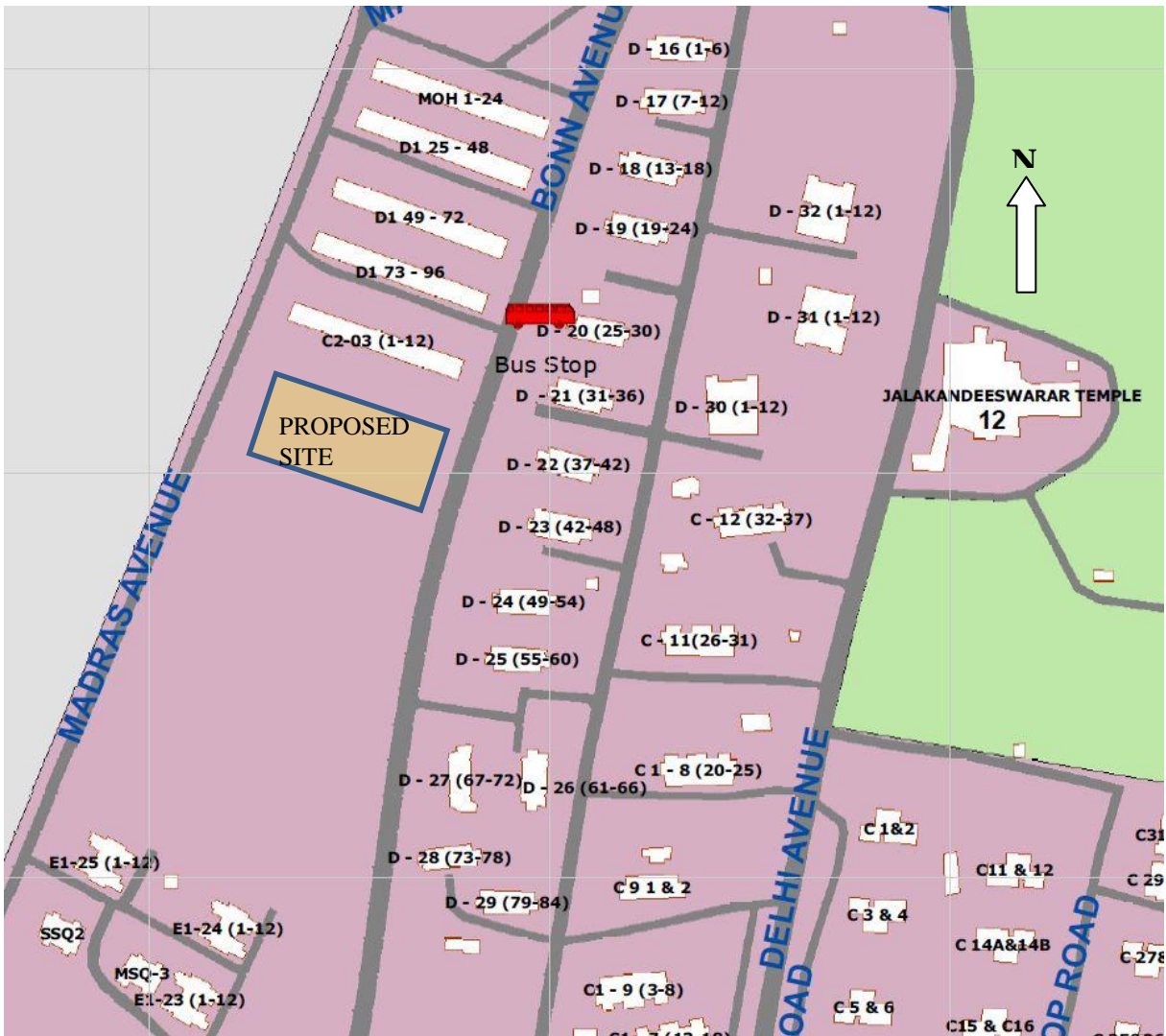
Signature of Architect

Date:

Name:

Seal:

**Appendix 1**  
**Site Location Drawing**



**Note:** The site may be inspected during office hours (09.00am to 05.30pm) on all working days of the Institute for verification of the actual site constraints like trees / existing structures etc.

CAD drawing (\*.dwg format) of the site location will be provided on specific request from the Architects on or before 06-11-2013.