NIT No. IITH/CMD/CIV/2024-25/NIT (CON)-31



भारतीय प्रौद्योगिकी संस्थान हैदराबाद Indian Institute of Technology Hyderabad

NOTICE INVITING TENDER FOR APPOINTMENT OF ARCHITECTURAL CONSULTANCY SERVICES (NIT)

Name of the work: Consultancy services for providing Architectural, Structural and MEP for Construction of "Directors Residence" at Indian Institute of Technology Hyderabad.

06/11/2024

Executive Engineer (Civil) IIT Hyderabad

INDIAN INSTITUTE OF TECHNOLOGY HYDERABAD NOTICE INVITING TENDER FOR APPOINTMENT OF ARCHITECTURAL CONSULTANCY SERVICES <u>NIT Reference No. IITH/CMD/CIV/2024-25/NIT (CON)-31</u>

Indian Institute of Technology Hyderabad invites on behalf of President of India online bids (e-tendering) Item rate/percentage rate limited composite tender in Single Bid System from specialized agencies/ Departments /Organizations having similar experience in Government/ PSU's/Autonomous building projects as consultant for providing Architectural, Structural and MEP services for the below mentioned work.

| 1.1 | NIT No.: | IITH/CMD/CIV/2024-25/NIT(CON)-31 |
|-----|--------------------------------------|---|
| 1.2 | Name of Work: | Consultancy services for providing Architectural, Structural and MEP for Construction of "Directors Residence" at Indian Institute of Technology Hyderabad. |
| 1.3 | Earnest Money Deposit (EMD): | Nil |
| 1.4 | Date of Online Publication of Tender | 06/11/2024 @1500hrs |
| 1.5 | Date of Downloading of Tender | 06/11/2024 @1530hrs |
| 1.6 | Last Date for Submission of Bids | 16/11/2024 @1500hrs |
| 1.7 | Date and time of Opening of Bids | 18/11/2024 @1530hrs |
| 1.8 | Cost of Bid Document: | NIL |
| 1.9 | Period of Completion: | 24 months |

Instructions to the Bidders for Online Bid Submission

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: https://eprocure.gov.in/eprocure/app.

REGISTRATION

- Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <u>https://eprocure.gov.in/eprocure/app</u>) by clicking on the link "Online bidder Enrollment" on the CPP Portal which is free of charge.
- As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g., Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend

their DSC's to others which may lead to misuse.

6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e- mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in

which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g., PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or ''Other Important Documents'' area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

<u>Note:</u> My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

SUBMISSION OF BIDS

 Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e., on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date and time of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise, the uploaded bid will be rejected.

5) Tenders without valid EMD will be summarily rejected. No exemption of EMD's or process fee for MSME/NSIC registered contractors.

6) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

- 7) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 8) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 10)Upon the successful and timely submission of bids (i.e., after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 11)The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

1) Any queries relating to the tender document and the terms and

conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

 Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

1.1 Introduction to the Project

The Institute intends to construct "**Directors Residence**" including site development/landscape works. The objective is to provide an energy efficient building with latest provisions related to safety, security and functionality, and optimum utilization of resources for a "Green Building" conforming to GRIHA 3 standards (preferably GRIHA 4 if there is no significant cost escalation).

Section 2 : Scope of Work

2.1 Scope of Work

This section describes the scope of work for each of the professional services rendered to the Institute for the design of above building and facilities on its Permanent Campus. These professional services include

- Architecture Design including
 - o Green Building Technologies,
 - o Facade Design,
 - o Landscape Design,
 - o Security Systems Design,
 - Building Interior Designs
- Structural Design
 - Including Geotechnical Foundation Design and
 - RCC Framed structures
- MEP Design including H V A C Systems Design
- Speciality Consultancy services on a case-by-case basis
 Eg: For GRIHA Certification

2.1.1 Architecture Design (including Facade Design, Landscape Design and building Interior Design)

The Scope of Work and the deliverables for the Architectural Design (including Facade Design, Landscape and Building Interior Design) Services are defined in the five stages of development of the campus:

- (a) Concept Design Stage,
- (b) Preliminary Design and Documentation Stage
- (c) Design Development Stage,
- (d) Detailed Design, working drawings and tender documentation,

The individual items of works to be delivered in each of these stages are listed below:

(a) Concept Design Stage

- 1. Attend Architecture Design Briefings to learn the requirements and inspect the site.
- 2. Review the master plan provided by Master Planners/the Institute, and give suggestions for possible minor, but important improvements in the Master Plan pertaining to specific plot.
- 3. Work within the general frame work of the Master Plan provided by Master Planners/the Institute.
- 4. Follow the Development Guidelines & Architecture Design Guidelines provided by the Master Planners of the Institute's Permanent Campus, and undertake:
 - (a) Architectural design of buildings, including green building concepts conforming to GRIHA 3 standards, footprint, height, massing, disposition, and entrance;
 - (b) Local Landscape Design within the development plot of the building;
 - (c) Façade design;
 - (d) Building Interior designs i/c modular Kitchens
 - (e) External lighting of the building and facilities;
 - (f) Signage design at the building, and
 - (g) Broad overarching suggestions relating to (i) Structural systems, materials and design aspects, (ii) Geotechnical design aspects; and (iii) Urban MEP design for buildings and facilities; as per Master Plan, Building Byelaws of HMDA, National Building Code, other IS codes, applicable norms and other green building concepts conforming to GRIHA 3 rating.
- 5. Provide architectural concept including the area program for building/facility based on the user inputs, based on data concerning site, and infrastructure, soil investigation, and

- (a) Develop appropriate alternatives and architectural concepts, including: forms, finish, functionality and proposed structural system (in consultation with the structural engineer and the Institute); and
- (b) Prepare Preliminary Architectural Design Basis Report.
- 6. Prepare Concept drawings and Preliminary Sketch drawings based on chosen alternative.
- 7. Prepare Preliminary Cost Estimates;
- 8. Review the design with the Structural Engineer and Quantity Surveyor and make any concept changes to obtain the most costeffective design.
- 9. Liaise and coordinate with other consultants for the project.
- 10. Provide soft copies and 2 hard copies of all deliverables;

(b) Preliminary Design and Documentation Stage

- Interact with structural designers, geotechnical consultants, MEP consultants, building Interior design consultants and landscape consultants to develop detailed designs of the building/facility and its internal contents, and integrate them to make a coherent design of the whole building/facility.
- 2. Provide the materials palette and give the look and feel of the finished product through
 - (a) Samples of materials from potential vendors;
 - (b) Walk-throughs created on computers.
- 3. Identify the technology to protect engineered façade elements as identified in the Master Plan in select buildings/facilities. Specialist façade engineering services are essential to ensure safety of the occupants or passers-by from these important non-structural elements. When glass is used as façade material, selection of

suitable glass (selection of suitable sealants), connections with the structural systems, design for safety of glass during relevant natural hazards, and mechanical systems required for maintenance of facades are some of the important elements of facade engineering which should be adequately addressed by the consultant;

- 4. Prepare Final Architectural Design Basis Report.
- 5. Attend the Schematic Design Co-ordination meetings.
- 6. Co-ordinate with Structural Engineer, other Specialist Consultants, the Institute and the Municipal Architect, to ensure that all the deliverables are in line with the required by-laws and develop the Drawings required for submission to the Municipal Authorities.
- 7. Prepare all required working drawings and documents and obtain the required statutory approvals by the relevant authorities and necessary liaison and follow-up to obtain the approvals from the authorities. All the fees, levies, taxes paid to the statutory authorities for obtaining the said approvals shall be reimbursed by the Institute on production of original receipts; the receipts shall be in the name of the Institute.
- 8. Revise the working drawing and documents, if required, as per the correction made in the working drawing by the statutory authorities.
- 9. Co-ordinate with Quantity Surveyor of his organization to work out the Preliminary Cost Estimates based on CPWD Schedule of Rates, and provide detailed rate analysis for various non-scheduled items, supported by market rates through quotations including corrections for the site at IIT Hyderabad, Kandi Village.
- 10. Provide soft copies and 2 hard copies of all deliverables;

(c) Design Development Stage

- Develop architectural design drawings that provide details of MEP design, façade design, building interiors design and landscape design.
- Prepare typical drawings that describe the relation of architectural elements (e.g., MEP elements and façade elements) with structural systems (General Assembly - GA drawings).
- 3. Prepare technical specifications for all the architectural works suitable for separate tendering and submit all GA drawings necessary by Quantity Surveyor to issue tenders and prepare Bill of Quantities.
- 4. Submit all architectural and civil design documentation as required for local authority for building permits.
- 5. Co-ordinate with Structural Designer and other Specialist Consultants to develop a tendering Schedule.
- 6. Provide soft copies and 2 hard copies of all deliverables.
- 7. Attend all Design Coordination Meetings with other Specialist Consultants.

(d) Detailed Design, Working Drawing and Tender Documentation Stage

- 1. Prepare Tender Drawings, on approval of the Architectural drawings by the Institute.
- 2. Complete detailed design and working drawings for architectural works, in coordination with the other Specialist Consultants.
- Prepare a comprehensive quality control document (with clearly defined test procedures and acceptance criteria) for accepting all architectural elements employed in the project,
- 4. Prepare the Tender Document, submit 2 sets of hard copies and soft copies of the Tender Drawings, review priced Bill of Quantities

prepared by Quantity Surveyor, supply Technical Specifications and data sheets giving reinforcement requirements at critical sections.

- 5. Assist the Institute and/or the Project Manager/Executive Engineer appointed by the Institute in pre-qualification of the Contractors, attend Pre-bid meetings to answer any technical queries raised by the bidders, participate in Technical Negotiations, if requested by the Institute, and assist the Project Manager/ Executive Engineer in preparing comparative statement after receipt of tender documents from contracting agencies, evaluating the Technical tenders received by the bidders and selecting the Final Contracting Agency, if requested by the Institute.
- 6. Review and revise architectural design details as required based on the Institute's construction budgets.
- 7. Provide all relevant design calculations (in soft copy on CDs), for record keeping by the Institute.
- 8. Issue 6 full sets of good for construction drawings, duly approved by the Institute Hyderabad.
- 9. Attend all Design Coordination Meetings with other Specialist Consultants.

(e) Construction Stage

- 1. Respond to any design queries raised by Project Management Consultant, Contractor or the Institute.
- Attend relevant site meetings and make other periodic visits to the site as appropriate to the stage of construction or as otherwise agreed with the Institute, to review the execution of construction work underway and provide any clarification related to the said construction.
- 3. Check contractors' material submissions. Review and approve all materials to ensure adherence to design intent.

- Maintain an up-to-date set of architectural design drawings incorporating any changes and to be made available to the Institute.
- 5. Deliver (after completion of project) 2 full sets of as-built Architectural Drawings including all services (in hard copy and soft copy CDs), incorporating necessary minor changes during execution as required by field conditions and/or as requested by the Institute, for record keeping by the Institute.

2.1.2 List of Deliverables of Architectural Design:

Provide the following but not limited to:

- 2.1.2. A) CIVIL DRAWINGS
 - a) Site Plans

1. Building location plan – building laid down dimensionally with pertinent adjacencies, permanent bench mark, street lines, required setbacks, manholes, sewers, hydrants, interfaced with surveyed site plan.

2. Grading and paving plans, including contours, critical spot elevations. (Main level /datum elevation)

- a. Include sidewalks, ramps, stairs, driveways, parking areas including layout geometry
- b. Site drainage and retention areas
- 3. Utility Plans

a. Showing utilities to the building (electrical, water, gas, telephone and cable)

b. Sanitary and storm laterals from the building to the mains

c. Storm sewers, inlets, manholes, etc.

b) Site Sections

Typical driveway, parking area, sidewalk cross sections.

c) Typical Design Details

Provide typical details of the following exterior:

1. Railing, stairs, ramps, walkway paving types and patterns, benches, site lighting, other significant features

2.1.2. B) ARCHITECTURAL DRAWINGS

a) Architectural Floor Plans

1. Dimensioned structural bay system

- 2. Internal partitions located, drawn and dimensioned.
- 3. All casework and other equipment called out on plans.

4. Major mechanical/electrical systems determined and their requirements reflected and indicated on the plans including louvers, pathways and utility entrances

5. Locate all plumbing fixtures

6. Required rooms named and numbered

7. Locate exterior and interior doors and windows

8. Locate typical and fire rated partition types

9. All keyed references: match lines, building sections, enlarged plans, etc., keyed notes.

10. Finish floor elevations noted

11. Expansion joints indicated

12. Building cores (stairs, elevators, toilets, shafts, etc) drawn to a suitable larger scale, dimensioned and keyed to larger plans

13. Plans and elevations of feature areas (lobby, special spaces) drawn to a suitable larger scale with all surfaces shown and materials called out and keyed to larger plans.

14. Roof plan.

15. Seating plans for all areas.

b) Reflected Ceiling Plans

Provide a reflected ceiling plan for all finished spaces which includes:

1. Located lighting fixtures, speakers, cameras

2. Soffits/bulkheads, skylights

3. Identify major ceiling materials and their relationship with partitions

4. Identify all areas with exposed structure

c) Building Elevations

1. Building elevations including roof structures and foundations

2. Identify and locate all exterior windows and doors

3. Identify floor levels, vertical dimensions and overall building heights

4. Column centre lines

5. Locate expansion joints and major panel joints

6. Exterior mechanical equipment

7. All materials noted; demarcation of materials shown

8. Detailed elevations at a suitable larger scale as necessary to explain intent (building entrance, special brickwork or masonry, building canopy, etc)

9. Major keyed references: match lines, buildings sections, wall sections

d) Building and Wall Sections

1. Include major building sections, identify column lines, feature openings and relationships between floors, ceilings, structure and mechanical systems

2. Vertical dimensions including floor to floor and ceiling heights

- 3. Finished grades around the building
- 4. Typical wall sections or assembly details

2.1.2. C) LANDSCAPING

1. Site plan indicating lawn and plantings.

2. Consideration is to be given to the topographic information for drainage.

2.1.2. D) DETAILS

1. Large scale details of major exterior wall assemblies, (parapets to foundation)

2. Large scale details of major foundation and perimeter treatment

3. Typical window and door details (i.e. head, jamb and sill conditions)

4. Typical interior and exterior columns details

5. Key areas shown including stairs, elevators and escalators, loading docks, shafts and other conditions where wall sections reveal the third dimension

6. Major casework elevations and millwork profiles

7. Partition types

2.1.2. E) INTERIORS

1. Details of significant interiors like cup boards, side boards, ward robes, TV shelves, Book Shelves, kitchen modular units, lighting etc., designs.

2.1.2. F) SCHEDULES

- 1. Interior finish schedule
- 2. Door and frame schedules
- 3. Window and glazing schedules
- 4. Interior furnishing schedules, furniture layouts

2.1.3 Structural Design (including Geotechnical Foundation Design and Civil Engineering Services)

The Scope of Work and the deliverables for the Civil and Structural Engineering Services including Geotechnical Foundation Design are defined in the five stages of development of the campus: (a) Concept Design Stage, (b) Preliminary Design and Documentation Stage, (c) Design Development Stage, (d) Detailed Design, working drawings and tender documentation stage, and (e) Construction Administration Stage.

2.1.4 List of Deliverables for Structural Design:

Provide the following but not limited to:

STRUCTURAL DRAWINGS

2.1.4.A) STRUCTURAL PLANS

1. Foundation plan including interior and perimeter foundations, footings, piles, caissons, wall beams and grade beams as needed.

2. Framing plans for all floors and roof including major member sizes noted or scheduled, typical and maximum column sizes

3. Locate columns, beams, purlins, joists, etc.

2.1.4.B) STRUCTURAL SECTIONS/DETAILS

1. Location of in-floor electrical system

2. Major penetrations (i.e. slab openings, pits, tunnels and ramps) located on drawings

3. Expansion joints located

- 4. Typical edge of slab details for cladding attachment
- 5. Special conditions noted (shoring, underpinning, etc.)

6. Provide wind, seismic, dead and live loads design information along with design calculations and analysis results.

7. Footing, beam, column and connection details.

8. Position of hangers/other fixing arrangements of HVAC piping system.

9. All design calculations and analysis inputs and results.

10. After completion of the project, 2 full sets of as-built Structural Drawings incorporating necessary minor changes during execution as required by field conditions and/or as requested by the Institute, for record keeping by the Institute.

<u>** Note: All structural drawings shall be finalized taking into account</u> <u>the requirements of MEP Services.</u>

2.1.5 Mechanical-Electrical-Plumbing (MEP) Design (Including External Lighting Design for building/facility)

Specialists shall be employed for the design of MEP facilities. Mechanical engineers shall design the required mechanical systems, like Heating-Ventilation-Air-conditioning (HVAC), mechanical facilities like overheard cranes in buildings/facilities, and service and passenger elevators. Electrical engineers shall plan and design all electrical facilities required for air-conditioning, air-cooling, remote control access to buildings and facilities, non-conventional energy of solar power, and captive power generation of diesel-based generation for all major facilities. Lighting specialists shall be employed in planning natural lighting for all interiors, and electrical lighting for internal and building/facility external needs. Plumbing specialist shall plan and design all internal and external water supply, sewage treatment, waste water transport, storm water drainage, water supply schemes, and local fire-fighting schemes.

The Scope of Work and the deliverables for the Mechanical-Electrical-Plumbing (MEP) Design (including External Lighting Design) Services are defined in the five stages of development of the campus: (a) Concept Design Stage, (b) Preliminary Design and Documentation Stage, (c) Design Development Stage, (d) Detailed Design, working drawings and tender Documentation. The individual items of works to be delivered in each of these stages are listed below:

(a) Concept Design Stage

- Prepare Preliminary MEP Design Basis Report at the start of design activity, which includes the assumptions made and the methods to be employed for analysis, design and detailing of MEP facilities. Seek approval of this Preliminary MEP Design Basis Report by a Peer Review Agency (approved by the Institute).
- 2. Prepare Concept drawings and Preliminary Sketch drawings based on chosen alternative.
- 3. Assist Quantity Surveyor (as required) for preparation of Preliminary Cost Plan from MEP facilities point of view. Quantity Surveyor shall prepare the Cost Plan.
- 4. Review the MEP Design with the Architect, Master Planners, Quantity Surveyor and the Institute, and make any concept changes to obtain the most cost-effective design.
- 5. Liaise and coordinate with other consultants for the project.
- 6. Assist in the preparation of a design and construction program, in collaboration with other consultants.
- 7. Provide soft copies and 2 hard copies of all deliverables.

(b) Preliminary Design and Documentation Stage

- 1. Establish MEP Components and their sizes based on agreed conceptual MEP design.
- 2. Prepare Final MEP Design Basis Report.
- 3. Attend the Schematic Design Co-ordination meetings.
- 4. Co-ordinate with Architect, other Specialist Consultants and the Institute, and develop a Schedule of Stages and the list of MEP deliverables at each stage.

- 5. Co-ordinate with Architect, Master Planners, other Specialist Consultants, the Institute and the Municipal Architect, to ensure that all the MEP deliverables are in line with the required bylaws and develop Drawings required for submission to the Municipal Authorities.
- Co-ordinate with Quantity Surveyor to help work out the Preliminary Cost Estimates, and provide detailed rate analysis for various items, supported by market rates through quotations.
- 7. Provide soft copies and 2 hard copies of all deliverables.

(c) Design Development Stage

- 1. Develop MEP design drawings based on the architectural and structural drawings received.
- 2. Prepare typical design of MEP structural system to transfer loads to main structural framing members, along with quantities of typical items identified, and prepare General Assembly (GA) drawings.
- Prepare details of joinery connecting MEP facilities to the structural framing system, and prepare drawings giving schedules and sizes of all MEP structural members.
- 4. Provide all relevant MEP design calculations, and detailed MEP structural and construction drawings as required for the construction of the entire MEP facility. The design shall be peer reviewed by the Institute and certified for construction.
- Prepare technical specifications for all the MEP works suitable for separate tendering and submit all GA drawings necessary by Quantity Surveyor to issue tenders and prepare Bill of Quantities.
- 6. Submit all MEP design documentation as required by local authority for building permits.
- 7. Co-ordinate with Architect and other Specialist Consultants to develop tendering Schedule.

- 8. Provide soft copies and 2 hard copies of all deliverables.
- 9. Attend all Design Coordination Meetings with Architect, Master Planners, other Specialist Consultants and the Institute.

(d) Detailed Design, Working Drawing and Tender Documentation Stage

- 1. Update MEP Design on approval of the Architectural and Structural drawings by the Institute.
- 2. Complete detailed design and working drawings for MEP works, in coordination with other Specialist Consultants.
- 3. Prepare a comprehensive quality control document (with clearly defined test procedures and acceptance criteria) for MEP related works.
- 4. Prepare the Tender Document, submit 2 sets of hard copies and soft copies of the Tender Drawings, prepare priced Bill of Quantities, and supply Technical Specifications for MEP items and data sheets giving all critical details.
- 5. Assist the Institute and/or the Project Manager appointed by the Institute in pre-qualification of the Contractors, attend Pre-bid meetings to answer any technical query raised by the bidders, participate in Technical Negotiations, if requested by the Institute, and assist the Project Manager in preparing comparative statement after receipt of tender documents from contracting agencies, evaluating the Technical Tender Documents received by the bidders and selecting the Final Contracting Agency, if requested by the Institute.
- 6. Review and revise MEP design details as required based on the Institute's construction budgets.
- Provide all relevant MEP design calculations (in soft copy on CDs), for record keeping by the Institute.

- 8. Issue 6 full sets of Construction (MEP) drawings, duly approved by the Institute or a peer review agency approved by the Institute.
- 9. Attend all Design Coordination Meetings with other Specialist Consultants.

(e) Construction Stage

- 1. Respond to any design queries raised by Project Management Consultant, Contractor or the Institute.
- Attend relevant site meetings and make other periodic visits to the site as appropriate to the stage of construction or as otherwise agreed with the Institute, to review the execution of construction work underway and provide any clarification related to the said construction.
- 3. Check contractor's temporary workshop drawings and material submissions.
- 4. Maintain an up-to-date set of MEP design drawings incorporating any changes and to be made available to the Institute.
- 5. Review testing proposals and inspection duties with Project Manager who will witness and approve tests, reject or approve construction.
- 6. Review and approve all MEP materials to ensure adherence to MEP design intent.
- 7. Deliver (after completion of project) 2 full sets of as-built Structural Drawings (in hard copy, reproducible bromide sheets, and soft copy CDs), incorporating necessary minor changes during execution as required by field conditions and/or as requested by the Institute, for record keeping by the Institute.

2.1.6 List of Deliverables of MEP Works

Provide the following but not limited to:

2.1.6.A) MECHANICAL DRAWINGS

a) Floor Plans

1. Size and locate utility risers, shafts, chases and equipment coordinated with architectural plans

2. Heating and cooling load criteria for each space and major duct or pipe runs sized to interface with structural and architectural building components.

3. Mechanical room equipment layouts are shown

4. Locate intake and exhaust louvers

5. Indicate typical layouts of all ceiling devices

6. Consider access and replacement requirements with all equipment room layouts

7. Coordinate ceiling plenum space with architectural, plumbing, fire protection, electrical, structural.

8. Air and water flow diagrams showing CFM and LPM respectively.

9. Show electrical requirements such as panel size, location, voltage and current requirements for mechanical equipment.

b) Sections

- 1. Critical mechanical room cross sections
- 2. Corridor sections indicating duct clearances

c) Catalogue Cuts

- 1. Grills and diffusers
- 2. Special equipment
- 3. Controls/Building Management Control Systems (BMCS)

2.1.6.B) PLUMBING/FIRE PROTECTION DRAWINGS

a) Floor Plans

1. Size and locate utility risers, shafts, chases and equipment on architectural plans

b) Detail Plans

1. Locate all service lines for toilets, lavatories, mop sinks, floor drains and drinking fountains

2. Locate under-slab sanitary and supply lines

3. Locate maintenance hose bibs in toilet rooms and on exterior of building

4. Include roof drainage system (quantity and location of roof drains, internal and external downspouts)

5. Coordinate fixture sizes and mounting heights (for special accessibility and age groups)

6. Coordinate plumbing chase and shaft depths with architectural

7. Consider access and replacement requirements

8. Coordinate ceiling plenum space with architectural, fire protection, mechanical, electrical and structural consultants.

9. Coordinate piping size and flows for sprinklers, if applicable.

2.1.6.c) Catalogue Cuts

- 1. Plumbing fixtures
- 2. Special Equipment, if any.

2.1.6.d) ELECTRICAL DRAWINGS

a) Floor Plans

1. Size and locate utility equipment on architectural plans.

2. Major electrical equipment (switch gear, distribution panels, emergency generator, transfer switches, UPS system, etc.)

dimensioned and drawn to scale into the space allocated, also include riser diagram or one line diagram.

3. Identify service amperage and voltage requirements

4. Locate size of conduit runs, cable trays, risers, shafts, chases, etc

5. Locate size-site electrical transformers, underground service, entrance details, etc

6. Identify typical and feature lighting fixtures: ceiling and wall types reflective ceiling plan

7. Identify electric and telephone panel room locations

8. Locate electrical devices for offices including power receptacles, computer, telephone, TV, light switches, closed circuit TV, fire alarm, security and intercom devices

9. Locate exit and emergency lighting and fire alarm devices

10. Consider access and replacement requirements with all utility room layouts

11. Coordinate ceiling plenum space with architectural, plumbing, fire protection, mechanical, structural

12. Update design calculations to include power consuming equipment and load characteristics.

13. Site lighting, locate and identify all lighting fixtures.

b) Catalogue Cuts

- 1. Light fixtures
- 2. Fire alarm devices, fire detection and suppression systems.
- 3. Special equipment

4. Factory installed lighting and voltage surge protection equipment

2.1.7 Other Requirements & Deliverables

a) Specialty Consultants

All specialty consultants should provide the same level of information which is required for MEP disciplines.

Typical specialty consultants include: security, A/V and kitchen consultants.

Special arrangements for physically handicapped persons in all areas as prescribed by Government of India under statutes or other instructions.

b) Specifications

Provide the following:

- Draft specification. CPWD Specifications may be taken as a general guide to follow for general civil, structural and MEP works.
- 2. When a product is specified, three manufacturers must be listed as acceptable. Contact the Project Manager/IITH if circumstances require a product to be sole sourced.
- 3. Detailed specifications shall be provided for specialized jobs and special equipment.

c) Estimates

Provide the following:

Major preliminary estimated costs for all building components, verify inclusion of all elements by cross-checking against specification for omissions on the basis of CPWD Delhi Plinth Area Rates with corrections for the Kandi site.

 Detailed estimates on finalization of working drawings and preparation of BOQ for tender purpose. Delhi Schedule of Rates of CPWD shall be followed for the purpose and nonscheduled items must be supported with analysis and justification with market rates.

- 2. Estimate construction period, identify any phased work and any long-lead time for special item.
- 3. Sole source items identified as approved.

d) Tender Documents

Provide complete set of tender documents for all the subheads of the work including all services based on the Bill of Quantities prepared and furnish detailed General and Special Conditions of contract. CPWD General Conditions of Contract (GCC) may be taken as benchmark with suitable modifications to suit particulars requirements of the Institute. The tender documents shall comprise of:

- i. General Conditions of Contract & Special conditions of Contract
- ii. Bill of Quantities
 - a. Detailed Estimate
 - b. Measurements
 - c. Analysis of Rates
- iii. Detailed Specifications
- iv. Tender Drawings.

2.2 Obtaining Statutory Approvals

It is the responsibility of the Consultant to obtain all the necessary statutory approvals. The necessary fees payable to the various government bodies for obtaining the approvals will be borne by the Institute.

2.3 Certification

 Structural Safety: The Consultant shall give certification regarding structural safety of the building (s). 2. Earthquake and wind resistance: The Consultant shall comply with all relevant norms laid down by the HMDA and National Standards towards ensuring prescribed Earthquake Resistance and Wind resistance.

2.4 Duration of the Assignment

The duration of consultancy services shall be from the date of award/issue of LOI till completion of the project.

2.4.1 Time Schedule

The Consultant shall adhere to the time schedule to complete various stages of the work. The time schedule is as per the Master Schedule attached herewith.

3.1 Coordination with other consultants/agencies

- 1. First and foremost is working in complete harmony with the master planners and co-architects of other buildings to evolve integrated and holistic concepts for the entire campus of the Institute.
- As documents develop, confer with regulatory agencies such as Fire Department, municipal authorities, local bodies, electrical department/board/ company etc.,
 - 3. Identify all documents with project number and date.
 - 4. Review the building design program, scope of work and verify compliance.

3.2 Compensation for delay

3.2.1 The Consultant will be required to complete the jobs within the stipulated time. The time schedule for carrying out the jobs is given under clause **2.4.1**. Any extension of the deadlines needs to be justified by the Consultant and approved by the Institute.

3.2.2 In case the Consultant fails to complete the work within the stipulated time owing to reasons attributable to the Consultant, compensation @ 1% per month of the fees payable for that stage, subject to a maximum of 10% of the total fees payable to the consultant shall be levied on the Consultant at the end of the job (up to submission of tender documents or termination of the contract, whichever is earlier).

3.3 Property Rights

All designs and drawings shall be the property of the Institute. The name and logo of the Institute shall be predominantly displayed on all the drawings and documents. The IPR for the design will be with the Architect Consultant. Neither the Architect nor the Institute can use the drawings for any other project without the prior consent of either party for a period of 10 years from the date of approval of tender drawings by IITH excepting that the Institute may use the drawings for construction of one or more buildings within the same Campus within the stated 10 years with payment of any additional fees as prescribed by the Council of Architects. After the said period of 10 years, either party can use the drawings on freehold basis.

3.4 Form of Submission

The approved completion drawings shall be submitted in hard copy and editable soft copy format to the Institute. The proprietary rights of all the design shall remain with the Institute.

3.5 Safe, Economic, Sound and Accurate Proposals

The Consultant shall be fully responsible for evolving safe, economic, technically sound and correct design and shall ensure that the planning and designing of the work is carried out based on the latest Codes of practices, legislation, other relevant bye-laws and good Engineering practices. The Consultant shall guarantee the performance of all the structures, other systems and services after completion of work.

3.5.1 The Consultant hereby gives an undertaking that all drawings, design, specifications, BOQ, estimates and other documents will be prepared and furnished to suit the particular local conditions of the site in the most economical manner for the Institute. The consultant will work out economic design and adopt specifications so as to ensure that the estimates approved by the Institute at initial stages are not exceeded on completion of work. If any defect is noticed in the drawings, design, specifications, BOQ, estimates or other documents, the consultant shall provide, free of cost to the Institute, fresh designs/drawings/specifications

/estimates and other documents within a period of seven days from the date of notice issued by the Institute in this regard. The consultant shall also indemnify the Institute due to such defective designs/drawings/ specifications/estimates and other documents supplied by the consultant subject to a maximum of the consultancy fees.

3.6 Infringement of Copyrights

While providing consultancy services, the consultant shall ensure that there is no infringement of any patent or design rights and he shall be fully responsible for consequences/any actions due to any such infringement. Consultant shall keep the Institute indemnified at all times and shall bear the losses suffered by the Institute in this regard.

3.7 Force Majeure Clause

The Institute will not be responsible for any delay/stoppage of work due to force majeure conditions like natural calamities, civil disturbance, strikes, war etc., and losses suffered, if any by the consultant on this account. the Institute shall not be liable in any way to bear such losses and no compensation of any kind whatsoever will be payable by the Institute to the Consultant.

3.8 Completion period

The overall completion period for the consultancy services shall be till final completion and handing over of the project.

If at any stage, the Project has been delayed by the acts of the Institute/funding authorities or by the deployed contractor for the work, nothing extra shall be payable to the consultant. However suitable extension of time for completion of work shall be granted accordingly.

3.9 Responsibility for Accuracy of Project Proposals

The Consultant shall be responsible for the accuracy of the data collected and the designs, drawings, quantities and estimates prepared by him as part of the project. He shall indemnify the Institute against any inaccuracy in the work, which might surface at the time of ground implementation of the project. In such an eventuality, the consultant will be responsible to correct the drawings including re-investigations etc. as required without any extra cost implication on the Institute.

3.10 Liaison Personnel

Consultant shall appoint and notify a team of two senior officials of his/her organization as nodal officers to represent the consultant in all the meetings/presentations with the Institute.

3.11 Taxes and Other Dues

3.11.1 The rate quoted by the Consultant shall be deemed to be inclusive of all taxes i/c GST.

3.11.2 The statutory deduction of income tax or other taxes/dues if applicable shall be made from the payment released to the Consultant from time to time.

3.12 Recoveries

Should any recoveries be necessitated for bad/defective work/performance, recovery/penalties can be done / recovered from the consultancy fee/Earnest Money Deposit/Security Deposit/Performance Guarantee of the other works that the consultant is engaged in or would be engaged by the Institute at that time.

3.13 Signing of Agreement

The consultant shall be required to sign an Agreement with the Institute within 15-days of the receipt of LOI based on these terms & conditions.

3.14 Payments to Consultant

3.14.1 All the payments due to the consultant shall be made by Cheque or bank transfer and in Indian Rupees.

3.15 Arbitration

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing, whatsoever in any way arising out of or relating the contract, design, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works, or the execution or failure to execute the same, whether arising during the progress of the work or after completion or abandonment thereof shall be referred to the sole arbitrator appointed by the Director of Indian Institute of Technology Hyderabad acting as such, at the time of dispute. There will be no objection to any such appointment that the arbitrator so appointed is the Institute's Officer that he had to deal with the matters to which the contract relates and that in the due course of his duties as the Institute Officer he had expressed views on all / or any of the matters in dispute or difference. The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, the Director as aforesaid at the time such transfer, vacation of office or inability to act, shall appoint another person to act as arbitrator in accordance with the terms of the contract. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor. It is also a term of this contract that no person other than a person appointed by the Director as aforesaid should act as arbitrator. Subject as aforesaid the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in-force shall apply to the arbitration proceedings under this clause. All disputes pertaining to this contract shall be subject to the jurisdiction of courts at Hyderabad or Place of work i.e. Kandi, Telangana, India.

3.16. Ownership

All rights of data and documents generated as part of this project will vest with the Institute.

3.17. Notices

3.17.1 Any notice, request or consent required or permitted to be given or made pursuant to these standard conditions shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the consultant to whom the communication is addressed, or when sent to such consultant at the mentioned address.

3.17.2. A consultant may change his address for notice hereunder by giving the Institute notice in writing of such change to the mentioned address.

3.18. Fraud and Corruption

3.18.1. Definitions

(I) "corrupt practice" means the offering, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the selection process or in contract execution;

(ii) "fraudulent practice" means a misrepresentation or omission of facts in order to influence a selection process or the execution of a contract including non-compliance of standards;

(iii) "collusive practices" means a scheme or arrangement between the consultant, with or without the knowledge of the authority, designed to

establish prices at artificial, non-competitive levels and favouring certain brand names;

(iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract;

3.18.2. Measures to be taken

the Institute will cancel the Consultant's engagement, if it is engaged in corrupt, fraudulent, collusive or coercive practices during the selection process or the execution of that contract.

3.19. Modifications or Variations

Any modification or variation of the terms and conditions of these standard terms, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.

3.20. Termination

Agreement between the Institute and the Consultant may be terminated by either party giving the other a written notice of not less than 30 (thirty) days, should either fail substantially to perform his part of responsibilities/ duties, so long as the failure is not caused by the one initiating the termination.

3.20.1. If the Consultant is in breach of any of terms of agreement:

When the Consultant has made himself liable for action under any of the cases aforesaid the Institute shall have powers to determine or rescind the agreement.

3.20.2. By the Authority (the Institute)

The Institute may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause. In such

an occurrence the Institute shall give a not less than fifteen (15) days' written notice of termination to the Consultant, and thirty (30) days' in the case of the event referred to in (e).

(a) If the Consultant does not remedy a failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the Institute may have subsequently approved in writing.

(b) If the Consultant becomes insolvent or bankrupt.

(c) If the Consultant, in the judgment of the Institute has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

(d) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings.

(e) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than thirty (30) days.(f) If the Institute, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.

3.20.3. Payment upon Termination

Upon termination of the Contract pursuant to preceding clauses, the Institute shall make the following payments to the Consultant:

(a) Payment for Services satisfactorily performed prior to the effective date of termination;

(b) Reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract except in the case of termination pursuant to paragraphs (a) through (d) of 3.20.2.

3.21 Abandonment of Work

If the Consultant abandons the work for any reasons whatsoever or become incapacitated from acting as consultant as aforesaid, the Institute may make full use of all or any of the drawings prepared by the Consultant and that the Consultant shall be liable to pay such damages as may be assessed by the Institute subject to a maximum of 10% (ten per cent) of the total fee payable to the Consultant under this agreement.

3.22 Obligations of the Consultant

3.22.1. General

3.22.1.1. Standard of Performance

The Consultant shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices.

The Consultant shall perform as per the necessities and requirements of the Institute and shall deliver all the required deliverables true to the satisfaction of the Institute.

The Consultant shall always act, in respect of any matter relating to the Contract or to the Services, as faithful advisers to the Institute, and shall at all times support and safeguard the Institute's legitimate interests in any dealings with Sub-Consultants or third Parties.

3.22.1.2. Conflict of Interests

The Consultant shall hold the Institute's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.

3.22.1.3. Prohibition of Conflicting Activities

The Consultant shall not engage, and shall cause their Personnel as well as their Sub-Consultants and their Personnel not to engage, either directly or indirectly, in any business or professional activities which would conflict with the activities assigned to them under this Contract.

3.22.1.4. Confidentiality

Except with the prior written consent of the Institute, the Consultant and the Personnel shall not at any time communicate to any person or entity any confidential information, maps, images, reports, etc acquired in the course of the Services, nor shall the Consultant and the Personnel make public the recommendations formulated in the course of, or as a result of, the Services.

3.22.1.5. Consultant's Actions

The Consultant shall inform the Institute in writing before taking any of the following actions:

(a) Entering into a subcontract for the performance of any part of the Services,

(b) Appointing such members of the Personnel not listed in the team presented in the technical proposal submitted by the consultant.

3.22.1.6. Reporting Obligations

The Consultant shall submit to the Institute the reports and documents specified in deliverables section of agreement, in the form, in the numbers and within the time periods set forth in the agreement.

3.22.1.7 Documents Prepared by the Consultant to be the Property of the Institute

(a) All designs, models, concepts, plans, reports, other documents and softcopy submitted by the Consultant under this Contract shall become and remain the property of the Institute, and the Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Institute, together with a detailed inventory thereof. All the original images should be submitted to the Institute.

(b) The Consultant may retain a copy of such documents and software. However, for any future use of these documents, the consultant should take approval of the Institute.

3.23 Accounting, Inspection and Auditing

The Consultant shall keep accurate and systematic accounts and records in respect of the Services rendered, in accordance with accepted accounting principles and in such form and detail as will clearly identify all relevant time changes and costs, and the basis thereof.

3.24. Consultant's Personnel

3.24.1. Description of Personnel

The Consultant shall employ and provide such qualified and experienced Personnel as are required to carry out the Architectural, Structural, MEP Services and other specialized consultancy services. Immediately on signing of the agreement, the Consultant shall intimate the Institute the list of such key personnel.

The consultant shall not engage any relative of officers or faculty of the Institute without prior permission of the Institute.

3.24.2. Removal and/or Replacement of Personnel

(a) Except as the Institute may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultant, such as retirement, death, medical incapacity, among others, it becomes necessary to replace any of the Key Personnel, the Consultant shall provide as a replacement a person of equivalent or better qualifications.

(b) If the Institute finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultant shall, at the the Institute's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Institute.

(c) The Consultant shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

3.25. Obligations of the Institute

Assistance and Exemptions

The Institute shall make its best efforts to ensure that it shall provide the Consultant such assistance as reasonably required for the execution of the project.

Sign-off Letter : Upon completion of each stage, the Institute shall give a letter to the consultant asking the consultant to proceed with the next stage of the work.

3.26. Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

4.1 Fees

Fees: The quoted % of consultancy fees payable of the estimated cost work or actual cost of construction (whichever is less) for which consultancy service provided by the consultant including GST.

4.2 Payment schedule

| Stage | Schedule of Payment | %age of total consultancy fees |
|-------|--|------------------------------------|
| 1 | On signing the contract and upon submission of the performance guarantee. | 5% |
| 2 | On approval by the Institute of conceptual drawings and drawings with reference to requirements given by the Institute and approximate preliminary estimated cost on plinth area rate basis (in 2 sets) | 15% (less payment already made) |
| 3 | On approval by the Institute of the modified conceptual designs and drawings incorporating required changes suggested along with revised preliminary estimate cost. (in 4 sets) | 25% (less payment already made) |
| 4 | On approval of drawings by statutory bodies as may be required (in 4 sets) | 35% (less payment already made) |
| 5 | On approval by the Institute, "Good for Construction" drawings including drawings for all services in standard size in 6 sets including structural design calculations with detailed specifications. | 45% (less payment already made) |
| 6 | On approval by the Institute, schedule of items with quantities and specifications, detailed estimate and tender documents. | 55% (less payment already made) |
| 7 | On award of construction contract. | 65% (less payment already made) |
| 8 | 25% completion of construction work (Financial Progress) | 75% (less payment already made) |
| 9 | 50% completion of construction work (Financial Progress) | 85% (less payment already made) |
| 10 | On completion of all construction works including services. | 90% (less payment already made) |
| 11 | On submission of 'AS BUILT drawings' in editable electronic format and in hard copy (4 sets). | 100% (less payment already made) |

The Institute agrees to pay the fees to the Consultant for the professional services rendered by them. For the purpose of the stage payment enumerated in the table above, the estimated cost will be considered until the bid value is finalized.

4.2.1 The fee is inclusive of fees payable by the Consultant to any other sub consultant and associated consultant and nothing extra shall be payable by the Institute.

4.2.2 The Consultant shall have to make all arrangements for any other facilities required by his/her staff at their own cost.

4.2.3 The architects are required to attend meetings at IITH as per the requisition/approval of the Institute. Apex fares of air travel within India for two persons are reimbursable. Institute will arrange for their stay and food free of cost at IITH Guest House.

4.3 Cost of the Components to be excluded for payment to the

Consultant

The cost of following components of the project shall not be included in the cost for purpose of working out of the Consultant's fee.

4.3.1. Land including peripheral development charges

4.3.2. Plan approval and service connection deposited and fees payable to local and statutory bodies by the Institute

4.3.3. Cost of any rejected work

4.3.4. Cost of any supervisory and other establishment employed on work by the Consultant or the Institute

4.3.5. Other contingent expenditure like press advertisement, publicity, inauguration, ceremonies of building etc.

4.3.6. Fee paid by the consultant to other organizations for vetting of structural design.

4.3.7. Escalation in the cost due to increase in rates on materials, labour

etc. after award of work

4.3.8. Any deviation in the item of work not authorized by the Institute prior to its execution.

4.4 Performance Guarantee: The Consultant will be required to furnish Bank Guarantee from any nationalized / scheduled bank "A" Class by way of performance guarantee for due fulfilment of the contract obligation and shall submit the same after award of work and within two weeks of signing of the contract/agreement. The performance guarantee shall be 5% of the total fee and shall remain valid up to completion of the work and the same shall be released after satisfactory completion of the work. If the consultant breaches any of its obligation in relation with the time schedule or non-completing any of its obligation herein to the satisfaction to the Institute, the Institute shall, without prejudice to its rights remedies pursuant to this agreement, have the right to forfeit and en-cash the guarantee.

Witnesses:

1.

2.