

OFFICE OF EXECUTIVE ENGINEER

Ratu-Lohardaga Road, Brambe, Ranchi – 835205



INVITATION OF EXPRESSION OF INTEREST FOR DEVELOPING
PERMANENT CAMPUS OF CENTRAL UNIVERSITY OF JHARKHAND AT RANCHI
CENTRAL UNIVERSITY OF JHARKHAND

DECEMBER 2017

CONTENTS

Section - 1: Preamble

Central University of Jharkhand, Brambe, Ranchi (CUJ) intends to set up a state-of-the art Academic-cum-Residential Campus on 319.28 acres of land at location 23 26'906N / 85 15'276E at elevation of 2420ft. above MSL, proposed site at Mauja - Cherri/Manatu which is situated near the Ring Road, Ranchi, Jharkhand, India. The proposed campus should be a modern state - of-the-art campus commensurate with Central University's National status. Details regarding space requirements and proposed campus features may be considered as per UGC, MHRD, MNRE(TERI/GRIHA) guidelines for developing such campus.

NOTE: The actual construction shall be based on present immediate needs.

The residential campus will have Academic Building comprising Faculty Rooms, Student Labs, Class Rooms, Lecture Theatres, Cafeteria, Conference Halls, Videoconferencing Studio, Student Corners etc. Besides this Campus will have Administrative Offices, Library, Dispensary, Residential Units, Halls of Residences, Guest House, Auditorium, Swimming Pool, Sports Complex Cum Gymnasium and Student Activity Centre.

In addition to above, the proposed complex will have the allied community facilities that are essential for such type of complex such as Community Centre and Club/ Gymnasium, Market Complex, Utilities and Infrastructure facilities like Internal Roads, Street Lighting, Campus Wide Power Backup System, Speedy & Secure Wireless Network Facility, Smart Card based Security System, Water Treatment and Supply Plant, Internal Sewerage Line with Treatment Plant, networked with Inland, Waterways, Fossil-free Transportation System, etc.

Site Planning and building design will meet best practice standards in ecologically sustainable design resulting in more efficient use of energy, water and other natural *resources and make* the campus friendly to physically challenged persons.

ZONES:

The campus will mainly primarily comprise of these five zones:

- a) **Academic:** comprising Academic Buildings, Administrative Offices, Library, Computer Centre, Auditorium etc.
- b) **Residential:** comprising Residential Units for staff and faculty, Halls of Residences etc
- c) **Commons:** comprising Guest House, Health Care Centre, Community Centre, Club, Sports Complex cum Gymnasium, Student Activity Centre, Market Complex, School , Food Court etc
- d) **Services:** comprising Utilities like Water Treatment Plant, Sewerage Treatment Plant, Power Back up System, HVAC System etc.
- e) **Natures:** comprising Gardens, Forest areas, Golf course, Jogger's Paths, etc.

PRESENT REQUIREMENT:

CUJ is on the lookout for a reputed Architectural and Engineering Design Consultancy firm comprising of Architects/ Consultants/ Architectural firms/ Consultancy firms for providing complete & comprehensive Architectural concept, design, detailing and Engineering Design Consultancy and detailing for all requirements for construction in the following disciplines:

Campus Master Layout Plan by considering existing constructed building like Admin, Academic Complex (1 &2), Library, School Style Building, Hostel (PG &UG), Girls Hostel etc.

Architectural design and detailing;

Internal Roads, Footpaths, Traffic Islands, Pathways, Street Lighting, Culverts & Bridges Structural, Public Health, Electrical, Electronic, HVAC services, Elevators, Fire fighting Power backup system;

Building Automation, Communication, Security System etc; Interior and furnishing works.
Horticulture and landscape works etc.

Other packages for completion of the CUJ's Campus.

It is anticipated that the construction commences by 2018 and Phase I is to be completed by 2020

CUJ proposes to construct modern state-of-the-art campus to accommodate all its requirements in such a manner that logistics are reduced to minimum. All zones in the campus must be planned in an integrated manner to result in aesthetically appealing, nature friendly, functionally suitable, green campus. The designs must incorporate intelligent building management system and structural design concepts that promote use of latest technology to accommodate changes/ modifications, if required at a later date.

AIM & OBJECTIVE:

1. The aim is to select suitable reputed Architectural and Engineering Design Consultancy firms for participation in a design competition for providing architectural concept and architectural designs for the proposed campus of CUJ.
2. The Architectural and Engineering Design Consultancy firm whose Architectural concept & design is selected shall be finalized as the Architect / Consultant for providing total Architectural Design/ Engineering Design Consultancy Services.

ROLE OF THE SELECTED ARCHITECTURAL AND ENGINEERING DESIGN CONSULTANCY FIRM:

The role of the selected Architect / Consultant is to provide a complete and comprehensive architectural concept, design, detailing and Engineering Design Consultancy for all requirements for construction of the proposed campus of CUJ, but not limited to the following:

1. Understanding the space requirements and planning with Service requirements
2. Master plan indicating the campus zoning and building locations
3. Conceptual Building plans (Floor plans)/ Elevations/ Sections/ 3D view etc;
4. Detail Planning/ Design of buildings and site development;
5. Structural design
6. Sanitary, Plumbing, drainage, water supply and sewerage design;

7. Electrical, Electronic, communication, acoustics systems and design;
8. Heating, Ventilation and air-conditioning (HAVC) & other mechanical systems;
9. Elevators. Escalators etc.
10. Fire detection, fire protection etc.
11. Building automation services
12. Landscape
13. Interiors
14. Assisting in approvals from statutory authorities and any other concerned authorities that are necessary for approval of drawings/ construction of buildings
15. Budgetary cost estimates with Bill of Quantities and tender documents

The selected Architect / Consultant shall provide Engineering Design Consultancy for all the above fields including design & detailing, furnishing all drawings, designs and details required for completion of state-of-the art Campus.

The bid document for the can be downloaded from CUJ website <http://www.cuj.ac.in>). The bidder shall deposit the cost of bid document along with submission of the other requisite documents, failing which his bid shall not be considered. The cost of bid documents is Rs 10,000/ which will be non-refundable, in the form of Demand Draft in favor of “Central University of Jharkhand, Ranchi” payable at Ranchi and submitted in the envelope containing Earnest Money Deposit (EMD). The bidders are advised not to make any corrections, additions, alterations in the downloaded bid document. In case, any corrections, additions, alterations are made in the downloaded bid documents; such bid shall summarily be rejected.

The Earnest Money shall be deposited in the form of demand draft in favour of “Central University of Jharkhand, Ranchi” payable at Ranchi and submitted in the envelope containing for an amount of Rs. 100000/- (Rupees One Lakh only). The EMD for all the unsuccessful bidders shall be returned without accruing any interest thereon after the applicant is appointed by CUJ. No exemption from depositing the EMD shall be allowed to any participating bidder/ firm. EMD of successful bidder shall be kept as Security Deposit and shall be released only with final payment of the Architect.

Request for Clarifications/ Suggestions may be sent to The Office of the EXECUTIVE ENGINEER, CUJ, at the address mentioned above, **Phone 08969303867 Email: kpanand1975@gmail.com**

Central University of Jharkhand, Brambe, Ranchi, reserves its right not to respond to any question raised or provide clarification sought in its sole discretion. All disputes arising shall be subject to the jurisdiction of the appropriate court at Ranchi, India and be governed by laws of India. The discretion and decision of Evaluation Committee of Central University of Jharkhand, Brambe, Ranchi in respect of the award of Prize shall be final and shall not be open to be challenged in any Court of Law.

Selection Process of Architect:

The Architect will be selected on the basis of QCBS (Quality and Cost Based Solution).

Eligibility of the Firm/ Consultant Project

Architectural firms having completed Architectural services for at least two educational Campus of 1,10,000.00 sqm built up area in last 5 years as on 31/03/2017 shall be eligible for participation. Projects which are subsequently completed at site (80 %) shall also be considered. Documentary evidence in support of this shall be required.

Technical Bid

1. Details of similar projects handled by Architect (initiated or completed in the last 5 years) giving date of start, date of completion, cost of project and delay if any attributable to Architect. Photographs of work may also be given if available.
2. List of similar projects in hand with Architect with description of projects, cost, time limit, targets etc.
3. Certified copies of Audited Balance sheet and Income Tax Returns for the last 5 years ending 2016-17.
4. Report explaining Architect's approach particularly to this project describing implementation strategies starting from conceptualization, phasing, development approach, time management etc.
5. Time schedule for complete development of total project in the form of BAR CHART.
6. List of Experts/ Specialists with Architect such as Architects, Structural consultants, Green building Consultants, Estimators etc.
7. The composition of the team to be deployed for this Project with their qualification, experience profile, projects handled.
8. An undertaking that team deployed for the execution of the project will not change without the prior consent of CUJ.
9. Applicant has to furnish the affiliation and certificate of council of Architecture for the Principal Architect and for the Architects to be deployed for this Project.
10. Availability of in-house Software and hardware facilities.

Every bidder has to furnish an affidavit on a Rs. 100/- (Rupees hundred only) Non-judicial stamp that information furnished in their bid is true to best of their knowledge and the official/s engaged in this project has never been under any type of disciplinary/ vigilance proceedings. They would also undertake that their firm/ organization has never been blacklisted. Any material change in the present position would be intimated to CUJ immediately.

11. The firm / company should have office in Jharkhand or in case the firm / company is selected they have to open an office in Jharkhand

Presentation

The salient features of the project are given Preamble. The details of the project are available in the chapters to follow. The intending architectural consultant will cover at least the following aspects in their presentation: -

- i. Concept Design of Master Plan and Building & Services: The proposed structures should be in line with the environment and ecology of the area.
- ii. Adopt renewable energy systems and Green Building Concepts, plan for Gold or equivalent rating.

- iii. Encompass minimum wastage, minimum external energy utilization, and minimum external water dependency by utilizing natural sources and recycling.
 - iv. Use environmentally friendly and locally available products and materials.
 - v. Optimize operational and maintenance practices, requirement of minimum maintenance after construction.
 - vi. Plan Infrastructure and Services plan for transport systems, including circulation, parking, drainage, ground water management, waste management, energy systems, intelligent building management and automation systems.
 - vii. Identify and Plan for future development.
 - viii. Meet the best practices, standards, provisions as applicable to ecologically sustainable design, efficient use of energy and natural resources.
- ix. Drawings and Documents to be submitted:
- 1. A Report on A3 size not exceeding 10 pages on Campus Development Concept and Detailed Area Statement giving Ground Coverage, FAR and No. of Floors.
 - 2. Master Plan and Schematic Services on Scale of 1:2000 supporting conceptual Diagrams can be on 1:5000 scales. All Drawings shall be scaled.
 - 3. Sectional Profiles, Elevations and 3D Views to explain the Design Concept.
 - 4. Total No. of Sheets shall not be more than 12 nos. in total to meet the requirements.
- x. Scope of submission
- 1. Appraisal of existing Site Conditions and supporting infrastructure
 - 2. Campus Design and Development of Master Plan
 - 3. Zoning, Ground Coverage and FAR Calculations for all Buildings (Administrative, Academic, Residential etc.), Facilities, Campus Services.
 - 4. Landscape & Horticulture Palate.
 - 5. Campus Development Controls and Guidelines.
 - 6. Sustainable Design Strategies
 - 7. Public Space Development and Guidelines.

The Selection Committee will evaluate the presentation on the above aspects.

The Selection Committee may choose to visit the works of the applicants to make their assessment, if so required.

Objective of Presentation

The objective of the presentation is to know the capability of the architectural consultant in development of a Campus Master Plan, concept of innovative design of individual building befitting to contemporary era of globalization endowed with modern concepts which would be well planned, matching with the environment and ecology and incorporating green building concept planning for Gold or equivalent rating.

Financial Bid:

All the participants will be required to quote their Architectural fee as percentage of the Built up cost, in Indian rupees. Finally, the fee shall be payable on Built-up cost. The service tax on consultancy fee as applicable shall be separately paid by CUJ. It may be noted that opening of Financial Bid of only those architectural consultants shall be considered for opening who score 80% or more in their technical bid evaluation including presentation as evaluated by the Selection Committee, whose decision in this regard shall be final and binding.

Selection process of Architectural Consultants

The Architectural Consultants will be selected based on “QCBS” i.e. on the basis of the technical bid evaluation including presentation and financial bid.

a) Technical bid:

The Technical bid including presentation shall be evaluated as below for 100 marks:

Sl. No	Subhead	Max marks	Remarks
1.	Two project of having completed Architectural services for educational campus of 1,10,000.00 sqm built up area in last 5 years as on 31/03/2017. Certificate shall be enclosed.	30	i. 60% marks minimum eligibility criteria, ii. 100% marks for twice the minimum eligibility criteria, iii. In between (i)&(ii) – on prorated basis
2.	Experience of similar projects in the region 1 mark for each project.	5	
3.	Annual turnover from consultancy services exceeding Rs. 5.0 crores in last five years.	10	i. 50% marks minimum eligibility criteria, ii. 100% marks for twice the minimum eligibility criteria, iii. In between (i)&(ii) – on prorated basis
4.	List of Experts / specialists with Architect such as Architects, Structural consultants, Green building consultants, Estimators, Interior Designer	15	
5.	Technical Approach, Methodology and work plan	15	
6.	Presentation before Selection Committee	25	
	Total Technical bid score (Ts)	100	

Note: Pass marks in technical bid evaluation is 60 or more. Financial bid of only

top 3 consultants will be opened.

(b) Financial Bid: Financial bid shall be given scoring as below:

The bidder who has quoted the lowest price will be assigned a score of 100 in the financial bid. The other bidders will be allotted score relative to the score of bidder with the lowest quote, as below:

$$F_s = 100 \times FL/F$$

Where:

F_s = The financial score of the Financial Proposal being evaluated

FL = The price of lowest priced Financial Proposal

F = The price of Financial Proposal under consideration

(c) Combined evaluation

The score of technical proposal including presentation would be given 80% weightage, and the financial proposal would be given 20% weightage. The weighted combined score of the Technical bid (T_s), and Financial proposals (F_s) shall be used to rank the bidders as below:

The first ranked bidder is eligible for award of the work.

$$\text{Combined Score} = 80\% \times T_s + 20\% \times F_s$$

Instructions for submission of Technical & financial bid:

Envelope-1: Technical bid should include DD towards cost of tender document as well as EMD along with all accompanying documents, reports, photographs, time schedule, management planning etc in a sealed cover. The bid document along with its annexure downloaded from website (<http://www.cuj.ac.in>) shall be duly signed on each page by the bidder and should be enclosed along with technical bid in envelope-1. The envelope shall also include duly filled in Check-List as per the format given in Annexure II at the end of this document. In case of no deposit of cost of tender document or EMD, the technical bid of that firm shall not be evaluated and the firm shall be kept out of participation in further bid process.

Envelope-2: Financial bid as per the format enclosed in the Annexure-I should be packed in an envelope and sealed. Financial bid of only those firm shall be opened who qualify in the technical bid evaluation.

Envelope-3: This will contain Envelope-1 and Envelope-2 and shall be sealed. This envelope should be super scribed with the name of the project, date & time of submission and either hand delivered at the Office Of The Executive Engineer, Central University Of Jharkhand, Ratu Lohardaga Road, Brambe, Jharkhand, India -835205 sent by regd. Post /speed post/ courier/ By hand to reach CUJ by 19.02.2018

Disqualification

The Selection Committee may disqualify bids on account of, but not limited to, the following reasons:

- a. If received after the last date and time.
- b. If the bidder disregards any of the terms & conditions of the bid and/or leaves any ambiguity in calculation of the consultancy fee
- c. If the participants attempts to influence any member of the selection committee.
- d. Receipt of Conditional bids.

The decision of the selection committee in the matter of disqualification shall be final and binding and no further correspondence shall be entertained from the disqualified bidders thereafter.

Termination of the bid

- a. Against all expectations entertained by CUJ, if none of the participating firms could be declared by the selection committee as the winner of the bid, the bidding will be regarded as terminated.
- b. CUJ reserves right to accept or reject any/ all bidders without assigning any reason(s) thereof.

Award of Work

The work of Architectural Consultancy services will be awarded as per recommendations of the Selection Committee on the basis of evaluation criteria given above.

Settlement of Disputes

All disputes arising shall be subject to the jurisdiction of the appropriate court at Ranchi, India and be governed by laws of India. The discretion and decision of Evaluation Committee of Central University of Jharkhand, Brambe, Ranchi in respect of the award of Prize shall be final and shall not be open to be challenged in any Court of Law.

Time Schedule

- i. Last Date & Time of Submission of Technical & Financial Bid: 19.02.2018
- ii. Date of Presentation followed by opening of Technical Bid: 20.02.2018
- iii. Date of Opening of Financial Bid: 27.02.2018

Changes if any, to the above dates will be notified on the website.

Additional Information:

The CUJ reserves the right to:

- i. Postpone and/ or extend the date of receipt of or to withdraw the bidding notice without assigning any reason thereof. In such an event, consulting firms shall not be entitled to any compensation in any form, whatsoever.
- ii. Cancel the bidding process and reject all or any of the proposals and will not be bound to accept lowest or any proposal or to give any reasons for the decision in the consultation with the Selection Committee.

In case, the last date for submission & opening of tenders is declared as a public holiday, the next official working day shall be deemed as last date of submission and opening of proposals without any change in time indicated. No separate notice to this effect shall be issued.

CHAPTER 2: INFRASTRUCTURE

2.1 General Instructions/Requirements

2.2.1 Total built up area proposed for CUJ campus at the proposed site is approximately 188698.00 Sqm.

The residential campus will have Academic Building comprising Faculty Rooms, Student Labs, Class Rooms, Lecture Theatres, Cafeteria, Conference Halls, Videoconferencing Studio, Student Corners etc. Besides this Campus will have Administrative Offices, Library, Dispensary, Residential Units, Halls of Residences, Guest House, Auditorium, Swimming Pool, Sports Complex Cum Gymnasium and Student Activity Centre.

In addition to above, the proposed complex will have the allied community facilities that are essential for such type of complex such as Community Centre and Club/ Gymnasium, Market Complex, Utilities and Infrastructure facilities like Internal Roads, Street Lighting, Campus Wide Power Backup System, Speedy & Secure Wireless Network Facility, Smart Card based Security System, Water Treatment and Supply Plant, Internal Sewerage Line with Treatment Plant, networked with Inland, Waterways, Fossil-free Transportation System, etc.

Site Planning and building design will meet best practice standards in ecologically sustainable design resulting in more efficient use of energy, water and other natural resources and make the campus friendly to physically challenged persons

2.2.2 Planning for green building concept shall be adopted for gold rating or equivalent.

CHAPTER 3: SCOPE OF WORK OF ARCHITECTURAL SERVICES

3. DETAILED SCOPE OF WORK

The detailed scope of works for Architect/ Consultant shall comprise of preparation of Master Plan and the following for all the Buildings/ Structures/ External & Internal Services/ Systems for the complete project but not limited to:

3.1 ARCHITECTURAL, CIVIL, SANITARY AND STRUCTURAL WORK.

- 3.1.1 Ascertain University requirements and examine site constraints & potential for individual buildings, external and internal systems/ services and prepare brief for Engineer/ PMC's review/ recommendations and University approval including conceptual/ control designs/ drawings/ documents and incorporate required changes, if any.
- 3.1.2 Study of project requirements and control drawings and preparation of design philosophy, basis & criteria for individual buildings, structures, external and internal services & systems for Engineer/ PMC's review/ recommendations and approval from University.
- 3.1.3 Carrying out Soil Investigation, Study and interpretation of soil investigation report and finalize input data for structural and foundation design for individual buildings/ structures/ equipments etc.
- 3.1.4 Preparation of detailed architectural working drawings including but not limited to, dimensioned plans, elevations, internal layout, sections, details etc for individual buildings/ structures.
- 3.1.5 Preparation of door/ window schedules, fitting schedules, finishing schedules, colour schemes, flooring patterns, reflected ceiling plans, ironmongery, joinery, installation details etc. for individual buildings/ structures/ equipments/ internal services etc.
- 3.1.6 Furnish necessary architectural norms, calculations etc to corroborate architectural detailing work.
- 3.1.7 Preparation of architectural and construction details such as fixing details, installation details, joinery, inserts, cut-outs, pockets, standard details and other construction details as required by site Engineers for successful completion of the project.
- 3.1.8 Study of input data and preparation of design calculations, schematic drawings and construction drawings for all external services, individual buildings pertaining to internal services such as:
 - 3.1.8.1 External & Internal Plumbing System.
 - 3.1.8.2 External & Internal Sewerage Piping System.
 - 3.1.8.3 External & Internal Waste Water Piping system.
 - 3.1.8.4 External and Internal Rain Water System.

3.1.8.5 Connection of Internal Services Systems with external services network.

3.1.8.6 Furniture for college buildings, class rooms, library, laboratories, Auditorium, Hostels & other buildings.

- 3.1.9 The detailed working drawings to include flow/schematic diagrams, plans, elevations, sections, blow-ups etc for individual services complete with material take off.
- 3.1.10 Designate a qualified Structural Engineer, who shall be wholly and singly responsible for structural soundness and safety of the buildings/ structures design under its scope.
- 3.1.11 Preparation of detailed structural analysis & structural design calculations (including seismic design as applicable) based on design output, preparation of detailed structural drawings.
- 3.1.12 Collection of input data from University/ Manufacturers/ vendors and design structural foundations (including dynamic analysis as applicable) for individual plant & equipment to be installed. The structural designs to cater for specialized requirements pertaining to special equipments.
- 3.1.13 Preparation of bar bending schedules and/ or detailed reinforcement drawings sufficient to enable the contractor to procure the steel from the market and cutting/ bending and placing of the reinforcement.
- 3.1.14 Preparation of fabrication/ construction/ shop drawings including material take off etc complete.
- 3.1.15 Detailed design, considering load data, Noise and Vibrations of equipments, drawings, cost estimates and specifications to cover all civil works associated with installation of all mechanical/ electrical equipment, services and systems.
- 3.1.16 Preparation of detailed specifications and data sheets for materials, work items, systems and services etc.
- 3.1.17 Preparation of detailed quantity estimates supported by detailed measurement sheets/ material take off sheets based on detailed drawings.
- 3.1.18 Preparation and submission of detailed cost estimates for buildings, structures, services & systems based on latest CPWD Schedule of Rates with necessary indices and correction slips, if any, applied thereupon. Preparation of rate analysis for the items, which are not available in CPWD-SOR, based on market rate quotations. Any deviation in quantity of items also required to be supported by rate analysis. Also preparation of abstract of quantities building wise or package wise, as required.
- 3.1.19 Preparation of detailed "Bill of Quantities" for Tender purposes for individual buildings/ structures and a consolidated statement thereof.

3.1.20 Preparation of list of recommended makes/ manufacturers for recommendations & approval of Engineer/ PMC.

3.1.21 Preparation of “As-built” drawings (on the basis of actual construction at site) including services and structures.

3.2 ELECTRICAL WORKS

Load estimation and optimization, design of system/ equipment, selection, description, Preparation of technical specifications, calculations, BOQ, drawings, SLD, schematics, blank data sheets recommended vendors list, rate analysis (with back up offers), cost estimates, obtaining clearances and certificates from statutory authorities wherever required for the following works:

3.2.1 INTERNAL ELECTRIFICATION WORKS FOR INSTITUTIONAL BUILDINGS

The major items shall include:

Lighting calculations for different buildings, Lighting & telephone layout drawings, conduit layout drawings, mounting details of lighting fixtures and other fittings, Load calculations for internal electrification, DB/ SDB details of different circuits for lighting fixtures, fans, exhaust fans, sockets etc., earthing and Lightning protection system calculations & drawings, cable sizing details, cable schedule. Details of protection switch gear, calculation of breaking capacity of upstream tripping, assessment of requirement of residual current circuit breaker and other special requirement of switch gear for scientific equipments along with specific requirement of zero halogen fire retardant and flame proof cables and switchgear in laboratory.

3.2.2 CENTRALISED UPS SYSTEM FOR INSTITUTIONAL BUILDINGS

The major items shall include:

Sizing calculations of UPS, Floor wise UPS power distribution drawing, cables, conduits and cable tray. Layout drawing for cables, conduit and cable trays.

3.2.3 AUDIO-VISUAL SYSTEM AND SOUND REINFORCEMENT SYSTEM FOR INSTITUTIONAL BUILDINGS

The major items shall include:

Conference room projection system, microphone, amplifier, speakers, DVD Player, acoustics, cables, conduits, cable trays and floor-wise layout drawings and system layout drawings.

3.2.4 INTERNAL COMMUNICATION SYSTEM FOR INSTITUTIONAL BUILDINGS

Detailing of internal communication system. Design and distribution drawing of PABX Line.

3.2.5 ACCESS CONTROL SYSTEM (PC BASED) FOR MULTI LEVEL ACCESS FOR INSTITUTIONAL BUILDINGS

The major items shall include:

Card reader and biometric device, system and application software, cables, conduits and floor- wise layout drawings and system layout drawing.

3.2.6 LOCAL AREA NETWORKING FOR INSTITUTIONAL BUILDINGS

The major items shall include:

Topology of networking, local area networking (Structured cabling), cables, conduits, raceways, sockets and layout drawings floor wise.

3.3 MECHANICAL WORKS

Design and preparation of system/equipment description, Technical specifications, BOQ, GA & layout drawings, data sheets and calculations ensuring compliance with the latest codes/ standards as applicable, detailed cost estimates, rate analysis with back-up quotations, obtaining clearances from statutory authorities, wherever applicable, any other information required to be included to complete the specification for the following works.

3.3.1 Lifts

- 3.3.1.1 Preparation of Technical specification considering the relevant code / Standard with capacity calculations, technical particulars with material of construction of various items.
- 3.3.1.2 Preparation of layout drawings indicating the location of lifts, shaft, pit, machine room & floor levels.
- 3.3.1.3 Preparation of bill of quantities.
- 3.3.1.4 Preparation of blank data sheet to be filed by vendors.
- 3.3.1.5 Traffic Analysis.
- 3.3.1.6 Preparation of specification of panels & other electrical equipments.

3.3.2 LPG Systems

- 3.3.2.1 Preparation of Technical specifications, Technical particulars indicating the material of construction of various component with back-up capacity calculations of the systems.
- 3.3.2.2 Preparation of P&I diagram.
- 3.3.2.3 Preparation of blank data sheet to be filed by vender.
- 3.3.2.4 Preparation of bill of quantities.
- 3.3.2.5 Preparation of general layout drawings indicating the gas system and piping layout drawings with gas cylinders station room layout.

3.3.3 Liquid Nitrogen supply system Including Liquid Nitrogen Plant

- 3.3.3.1 Preparation of Technical specifications, Technical particulars indicating the material of construction of various component with back-up capacity calculations of the systems.
- 3.3.3.2 Preparation of P&I diagram.
- 3.3.3.3 Preparation of blank data sheet to be filed by vender.
- 3.3.3.4 Preparation of bill of quantities.
- 3.3.3.5 Preparation of general layout drawings indicating the gas system and piping layout drawings with gas cylinder station room layout.

3.3.4 Compressed Air System

Only localized arrangements are required in certain area.

3.3.5 Internal Piping for Steam / Hot Water supply system through Boiler

- 3.3.5.1 Preparation of Technical Steam / Hot Water piping, pipe lining and other components.
- 3.3.5.2 Preparation of Capacity & Size calculations consisting the relevant codes and standards.
- 3.3.5.3 Preparation of bill of quantities and technical particulars.
- 3.3.5.4 Preparation of flow diagram of Steam / Hot Water piping, pipe lining.
- 3.3.5.5 Preparation of installation drawings indicating the locations of each component.
- 3.3.5.6 Data sheet to be filled by vender.

3.3.6 Vacuum Lines System

Detailing to be done for localized arrangements required in certain area

3.3.7 Fume Exhaustion System & Specialized Ventilation system to Cater to BSL-3 & BSL-4

- 3.3.7.1 Technical Specifications.
- 3.3.7.2 Preparation of Capacity & Size calculations consisting the relevant codes and standards.
- 3.3.7.3 Preparation of bill of quantities, technical Data sheet and technical particulars.
- 3.3.7.4 Preparation of flow diagram
- 3.3.7.5 Data sheet to be filled by vender.

3.3.8 HVAC Systems

- 3.3.8.1 It will be for various labs, Auditorium, Animal House, Administration Building, Lecture Theatre, Lab. & Engineering Services Building, Library, Other Area s as required by CUJ. There are certain areas such as BSL Labs and rooms which require special Air conditioning.
- 3.3.8.2 Preparation of technical specifications of the system with capacity calculation along with basis for calculations.

- 3.3.8.3 Preparation of technical particulars of each component of the system indicating their material of construction.
- 3.3.8.4 Heat load calculation for summer and winter.
- 3.3.8.5 Layout of each building showing the location of each components of the system.
- 3.3.8.6 Ducting layout and plant room layout, AHU & ducting size calculations.
- 3.3.8.7 Preparation of SLD, scheme GA drawing for the electrical panel, control desk and specification of electrical equipment.
- 3.3.8.8 Blank data sheets of components, system to be filled by vendors.
- 3.3.8.9 Any other Buildings/ services as directed by PMC/ Owner.

3.4 EXTERNAL SERVICES

The overall scope of work covers the following: -

- 3.4.1 Site evaluation, analysis of architectural character, social issues & heritage.
- 3.4.2 Feasibility study.
- 3.4.3 Preliminary proposal for development and their impact on immediate environs.
- 3.4.4 Volumetric study and urban form recommendations including pedestrian/ vehicular movement and parking.
- 3.4.5 Architectural control guidelines and their approval from the statutory bodies.
- 3.4.6 Concept design of services and their inner connectivity, preliminary & detailed drawings, designs, specifications, detailed estimates, working drawings, and periodic supervision for ensuring smooth progress of work for scope of work.
- 3.4.7 Landscape architecture, site planning, suitability & appraisal, landform including preparation of detailed design & drawings of landscaping elements, open space design, plant structure, illumination design, street furniture and graphic design and signage's.
- 3.4.8 Conceptual & detailed design, specifications, estimates of non-conventional use of energy (wherever applicable).
- 3.4.9 Conceptual & detailed design, specifications, estimates of rain water harvesting of the entire site along with its approval from the concerned bodies (if any).
- 3.4.10 Recycling of waste water, its appraisal, suitability study & preparation of detailed design/ schemes along with specifications & estimates.
- 3.4.11 Preparation of detailed design schemes along with estimates, specifications, implementation methodology and facilitating CUJ for getting concerned approvals (if any) for garbage disposal & solid waste management.
- 3.4.12 Preliminary Concept Design Stage:
 - Study of existing land use in and around the project area.
 - Study of contextual issues, socio-cultural aspects, landscape features and built form etc.
 - Study of existing infrastructure, accessibility, circulation pattern and parking.
 - Prepare report on site evaluation and analysis with basic approach to circulation, activity distribution and interconnectivity and external linkages including rough estimate of the project cost based on allowable FAR.
 - Furnish report on measures required to be taken to mitigate the adverse impact, if any, of the proposed development on its immediate environs. Obtaining environmental clearance certificate from concerned statutory authorities.

3.4.13 Preliminary Planning Stage:

- Preparation of concept design of the area showing circulation Pattern, zoning of various land uses, and relevant details, development strategy.
- Assessment of utility services and their inter-connectivity.
- Preparation of three-dimensional form in relation to open spaces, model showing the proposal and surrounding areas.
- Submission of model and conceptual design to the CUJ/ Statutory bodies for approval & ensure compliance with codes, standards and legislation, as applicable and carry
- Out necessary changes as may be required.
- Obtaining approvals from the municipal & other local authority for the master plan & building plans.
- Obtaining necessary approvals from Forest department and other local/ statutory authorities required for execution of project.

3.4.14 Detailed Design Stage:

- Preparation of drawings showing the common facilities for circulation, parking, open spaces and external architectural form.
- Preparation of drawings showing architectural controls, features, specifications and obtaining statutory approvals.
- These shall include all floor plans, sections and elevations for all buildings to sufficiently explain the urban design.
- Assessment of impact of development plan and its immediate environs.
- It shall further be supplemented by large scale details and models of the proposed architectural vocabulary along with information on selection of materials and construction techniques.
- The architect shall prepare schematic network of all services and its interconnectivity including water supply, drainage, sewerage, electrical, communication, fire detection and firefighting, garbage disposal, rain water harvesting, recycling of waste water, irrigation system, use of solar energy and other services as may be indicated by CUJ. The architect shall also prepare an integrated layout plan of CUJ campus showing all the services. The architect shall also obtain approval of schemes of all services from the concerned local statutory authorities.
- The architect shall provide necessary preliminary design calculation and designs, reports, etc. for the above referred services as may be required for obtaining CUJ/ Statutory approval. Preparation of necessary details and drawings showing landscape, street furniture and graphic signage including site appraisal and suitability, site-planning, land form and grading, surface drainage design and water management, irrigation design, open space design-roads, parking, hard & soft areas, walls, gates, & fences, design of plant structures & feature, garden furniture design, illumination design, graphic design

and signage, co-ordination of external services, inspection & evaluation of construction works along with detailed estimate and specifications.

- Furnish urban design report including implementation strategy.
- Prepare detail designs of various external elements & components.
- Presentation of urban design study and submission of design, drawings, calculations, reports etc. to the statutory bodies for approval and ensure compliance with codes, standards and legislation, as applicable and carry out necessary changes as may be required.
- Firefighting & detection, garbage disposal etc. separately.
- Furnish modified project cost.

The architect shall prepare preliminary estimates of all buildings, services, works on the basis of plinth area rates/ Schedule of rates of CPWD duly correcting with multiplying factor for the location/ area.

3.4.15 Implementation stage

- Review and certification of detailed architectural design of each of the constituent components for construction or development within the area under urban design, before approval by the statutory authorities.
- Supply to the employer such further drawings, specifications or details which may be required for proper execution of work.
- Obtain employer's approval for any material deviation in design, cost, working drawings, schedule and specifications from the approved scheme.
- Assist CUJ in obtaining service connections and NOC & occupying certificate from local authorities.
- Visit the site of work, at intervals mutually agreed upon, to inspect and evaluate the Construction Works and where necessary clarify any decision, offer interpretation of the drawings/ specifications, attend conferences and meetings to ensure that the project proceeds generally in accordance with the conditions of contract and keep the Client informed and render advice on actions, if required.

S. No.	Name of Project/Institute	Total area allotted (Sq.ft)	Total Plinth Area as per DPR	Progress of works as on date (Sq.ft.)	Remaining works (Sq.ft.)
A. ACADEMIC ZONE :					
1	School Style Building	111258.00	127946.70	6201.73	105056.27
2	Academic Building I	253564.67	291599.37	14668.20	238896.47
3	Academic Building II	142042.76	163349.17	1590.00	140452.76
4	School of Management and Natural Science	159269.52	183159.95	740.10	158529.42
5	Administrative Building I	130411.20	149972.88	6240.00	124171.20
6	Library Building	96840.00	111366.00	2787.09	94052.91
7	Work shop (shed)				
7(a)	Type - A	19368.00	22273.20	Not started	19368.00
7(b)	Type - B	17108.40	19674.66	Not started	17108.40
7(c)	Type - C	12115.76	13933.12	Not started	12115.76
8	Auditorium	58235.81	66971.18	Not started	58235.81
9	Seminar Hall & Gallery	10760.00	12374.00	Not started	10760.00
10	Exhibition Hall 7 Gallery	16140.00	18561.00	Not started	16140.00
B. HOSTEL ZONE :					
11	Hostels				
11(a)	PG Boys Hostel (Block-I)	75470.64	86791.24	52074.74	23395.90
11(b)	PG Boys Hostel (Block-II)	75470.64	86791.24	52074.74	23395.90
11(c)	PG Boys Hostel (Block-III)	75470.64	86791.24	52074.74	23395.90
11(d)	PG Boys Hostel (Block-IV)	75470.64	86791.24	52074.74	23395.90
11(e)	UG Boys Hostel	125041.96	143798.25	136608.34	11566.38
11(f)	Womens 3 Seated Hostel	110699.74	127304.70	Not started	110699.74
12	Meditation Centre	3766.00	4330.90	Not started	3766.00
13	Gymkhana	39028.13	44882.35	Not started	39028.13

C. STAFF RESIDENTIAL ZONE :					
14	Vice Chancellor's Bungalow (with Servant's Qtr. & Garage)	7187.68	8265.83	Not started	7187.68
15	Guest House	32688.88	37592.21	Not started	32688.88
16	Type I Quarters	34781.71	39998.97	Not started	34781.71
17	Type II Quarters	50050.14	57557.66	Not started	50050.14
18	Type III Quarters	94031.64	108136.39	Not started	94031.64
19	Type IV Quarters	62687.76	72090.92	Not started	62687.76
20	Type V Quarters	57200.16	65780.18	Not started	57200.16
D. COMMON FACILITY ZONE :					
21	Hospital	17033.08	19588.04	Not started	17033.08
22	Post Office, Bank, Toilet & Creche	3077.36	3538.96	Not started	3077.36
23	Cafeteria and Departmental Store	5380.00	6187.00	Not started	5380.00
24	Police Out-post	2496.32	2870.77	Not started	2496.32
E. SPORTS ZONE :					
25	Swimming Pool	32161.64	36985.89	Not started	32161.64
26	Football Ground	105448.00	121265.20	Not started	105448.00
27	Indoor Stadium	46246.48	53183.45	Not started	46246.48
28	Hockey Field	98992.00	113840.80	Not started	98992.00
29	Cricket Field	241024.00	277177.60	Not started	241024.00
30	Badminton Court	3873.60	4454.64	Not started	3873.60
31	Volley Ball Court	8177.60	9404.24	Not started	8177.60
32	Basket Ball Court	17129.92	19699.41	Not started	17129.92
33	Lawn Tennis Court	30988.80	35637.12	Not started	30988.80
34	Children Park	L.S.			

F. MISCELLANEOUS :		584042.04	671648.35	Not started	
35	Food Kiosk (single storey)	2959.00	3402.85	Not started	2959.00
36	Transport section and garage	5864.20	6743.83	Not started	5864.20
37	Estate Office	3665.29	4215.08	Not started	3665.29
38	Central store (shed)	2098.20	2412.93	Not started	2098.20
39	Gate Complex	6369.92	7325.41	Not started	6369.92
40	Cycle Parking Area	7266.23	8356.16	Not started	7266.23
41	Miscellaneous Expenditure (Computer peripheral, Xerox, Office Equipment, Furniture, UMS etc.)			Not started	
G. SERVICES :		28222.83			
42	Road Work, Path Ways			Not started	
42 a	Internal roads & pathways.	9 km		Not started	
43	Storm Water Drains.	LS		Not started	
44	Sewer Lines	L.S.		Not started	
45	STP	L.S.		Not started	
46	Boundary Wall	7.5 KM		Not started	
47	External Water Supply	L.S.		Not started	
48	Horticulture & Landscaping	L.S.		Not started	
49	Rain Water Harvesting, drainage system	L.S.		Not started	
50	External Electrification				
51	(Electrical sub-station (4nos SS)	41695			41695.00
52(a)	Electrical equipment like pannel and other accessories				
53	Equipment and Teaching Aids				
54	Architect fee for detail Architorial & stortal drawing				
GRAND TOTAL =					

Broadly the Scope of Services is quantified as follows:

Activity No.	Activity	Scope of Services in each activity
1.	Master/ Development Plan and its approval	<p>i. Topographical Survey of the whole area including preparation of Contour Maps. Preparation of Master/ Development Plan of the whole Campus based on the requirements of the Client and local bye-laws and its approval by the Client and the Local/ Statutory Bodies (if required). The Master Plan shall consist of Line Plans of Buildings, zones of various components of the campus (academic, residential, landscape, recreation and sports facilities, etc) and Services of whole project within standard/ permissible FAR and Ground Coverage. The Client shall provide necessary assistance to the Architect in approval from Local/ Statutory Bodies in the form of issuing letters to local/ statutory bodies if required.</p> <p>ii. Architect shall also be responsible to arrange Environmental clearance if required. Only statutory charges levied by any Govt. agency for this purpose shall be reimbursed by client.</p>
2.	Conceptual Plan and its Approval from Client and PMC including Preliminary Estimate	<p>i. Preparation of Conceptual Plan of various Buildings and Services including its Walk through presentation and its approval from Client and PMC.</p> <p>ii. Preparation of Preliminary Estimate of the Building and Services.</p> <p>(This activity is to be taken up in phases)</p>
3.	Detailed Engineering Of Buildings & Services	<p>i. Preparation of Building and Services Plan as per applicable standards & Client's requirements. Its approval from Client and PMC.</p> <p>ii. Geo-technical Investigation of the Campus area as per advice of the PMC.</p> <p>iii. Structural Design of Structures and Services. The details/ calculations of Design should be made available to the Client/ PMC by the Architect. The Architect shall be responsible to get the designs proof checked from any NIT or IIT or Central University.</p> <p>iv. Preparation of Drawings and Detailed Estimate of all works/ packages for the Project.</p> <p>(This activity is to be taken up in phases)</p>

4.	Statutory Approval Of Building Plans & Services	<p>i. Approval of the Building Plan and Services by Local/ Statutory Authorities (if required) before start of execution of works if required. The Client shall provide necessary assistance to the Architect.</p> <p>Approval from specialized agencies like Fire Services, Environment and Forest Department, etc. at completion of works.</p>
5.	Tender Documents For Works Contracts.	<p>i. Preparation of Tender Documents consisting of Special Conditions of Contract, Specifications, additional/ special Specifications, Tender Drawings, Bill of Quantities etc. in consultation with the PMC.</p> <p>ii. The Notice Inviting Tender (NIT), Instructions to Tenders, General Conditions of Contract etc. shall be prepared by PMC as per their standard works procurement standards in consultation with the Client.</p> <p>iii. The NIT shall be published by the PMC on behalf the Client. The evaluation of Tender and Award of the Works to the Contractors shall be done by the PMC on behalf of the Client.</p> <p>iv. The tender drawings prepared by Architect shall consist of details of Architectural, Structural, HVAC, fire detection/alarm and firefighting, Plumbing, drainage, sewerage, water supply, internal roads, landscape and horticulture, internal and external electrification etc. complete including all other allied services necessary for making the structures and buildings functional.</p> <p>(This activity is to be taken up in phases)</p>
6.	Construction Stage	<p>i. Issue of detailed working drawings as per schedule of work.</p> <p>ii. Issue clarification regarding adequacy of drawings during construction (if required).</p> <p>iii. Taking part in review meeting to be organized at site periodically to monitor the progress and quality of the work.</p> <p>iv. Taking approvals from local/ statutory bodies (if required during execution of the work).</p> <p>v. Assisting the PMC regarding approval of finishing materials (if required) during execution.</p> <p>(This activity is to be taken up in phases)</p>

7.	Post Construction Stage	<ul style="list-style-type: none"> i. Taking Completion/ Occupancy Certificates from local/ statutory bodies (if required). ii. Taking No Objection Certificates from Fire/ Forest/ Environment departments etc. (as required as per extant rules of the area). iii. Issue of “As Built Drawing” of Buildings and Services on reproducible papers for records of the Client. iv. Assisting Client/ PMC in any of the activities which are related with planning, design, approval and occupancy of the buildings and services etc.
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- i. The activity of Master Plan and its related works shall be done at one time. The subsequent activities shall be taken up in phases as per the advice of the PMC/ Client based on priorities and requirements of the University and availability of funds.
- ii. The client may review the work carried out by the architect at architectural planning, detailed engineering or at any pre-constructional stage to get satisfied with the standards and procedures adopted by the architect. It shall be the responsibility of the architect to make available the concerned documents to the client/ Consultant on demand. All the documents shall be submitted in Hard & Soft Copies.
- iii. The broad scope of services is classified in terms of activities. All the incidental services related with pre – construction phase, construction and post construction phase including additional related details, approvals, completion/ occupancy certificates etc. shall be deemed to be included in the scope of services of Architect. No extra payment shall be made for the incidental services.
- iv. The Master Plan shall include the Schematic Details for Infrastructural Development-, External Electrical/ Plumbing /Sewerage/ Water Supply, Fire Fighting Systems, Fiber Optic Connectivity-IT Infrastructure, Communication Networks, Roads, Pathways, Street Lighting, Campus Landscape/ Horticulture, Urban Furniture, Signage, Water (Rain Water harvesting) and Waste Management (STP/ETP) etc. Sustainable Model, Energy Conservation, or any other infra structural facilities as required as part of Master Plan.)

3.5 Time Schedule

The activities in Clause No. 3.5 are basically divided in three phases viz. Pre-construction Phase, Construction phase and Post-construction phase. The duration of pre-constructional phase is 4 (Four) months exclusive of tendering process and award of work to working agency. The activities at Clause No. 3.5 are to be performed as per the following schedule:

Activity No.	Activity	Scope of Services in each activity	Duration
1.	Master/ Development Plan and its approval	<p>i. Topographical Survey of the whole area including preparation of Contour Maps. Preparation of Master/ Development Plan of the whole Campus based on the requirements of the Client and local bye-laws and its approval by the Client and the Local/ Statutory Bodies (if required). The Master Plan shall consist of Line Plans of Buildings, zones of various components of the campus (academic, residential, landscape, recreation and sports facilities, etc) and Services of whole project within standard/ permissible FAR and Ground Coverage. The Client shall provide necessary assistance to the Architect in approval from Local/ Statutory Bodies in the form of issuing letters to local/ statutory bodies if required.</p> <p>ii. Architect shall also be responsible to arrange Environmental clearance if required. Only statutory charges levied by any Govt. agency for this purpose shall be reimbursed by client.</p>	1.5 Months from the date of Letter of Award (LOA) issued to the architect.
2.	Conceptual Plan and its Approval from Client and PMC including Preliminary Estimate	<p>i. Preparation of Conceptual Plan of various Buildings and Services including its Walk through presentation and its approval from Client and PMC.</p> <p>ii. Preparation of Preliminary Estimate of the Building and Services.</p> <p>(This activity is to be taken up in phases)</p>	1.0 Months from the date of issue of clearance by client for a particular phase, work, building or package.

3.	Detailed Engineering Of Buildings & Services	<ul style="list-style-type: none"> i. Preparation of Building and Services Plan as per applicable standards & Client's requirements. Its approval from Client and PMC. ii. Geo-technical Investigation of the Campus area as per advice of the PMC. iii. Structural Design of Structures and Services. The details/ calculations of Design should be made available to the Client/ PMC by the Architect. The `Architect shall be responsible to get the designs proof checked from any NIT or IIT or Central University. iv. Preparation of Drawings and Detailed Estimate of all works/ packages for the Project. <p>(This activity is to be taken up in phases)</p>	2.5 Months from the date of issue of clearance by client for a particular phase, work, building or package.
4.	Statutory Approval Of Building Plans & Services	<ul style="list-style-type: none"> i. Approval of the Building Plan and Services by Local/ Statutory Authorities (if required) before start of execution of works if required. The Client shall provide necessary assistance to the Architect. <p>Approval from specialized agencies like Fire Services, Environment and Forest Department, etc. at completion of works.</p>	3.0 Months from the date of issue of clearance by client for a particular phase, work, building or package

5.	Tender Documents For Works Contracts.	<ul style="list-style-type: none"> i. Preparation of Tender Documents consisting of Special Conditions of Contract, Specifications, additional/ special Specifications, Tender Drawings, Bill of Quantities etc. in consultation with the PMC. ii. The Notice Inviting Tender (NIT), Instructions to Tenders, General Conditions of Contract etc. shall be prepared by PMC as per their standard works procurement standards in consultation with the Client. iii. The NIT shall be published by the PMC on behalf the Client. The evaluation of Tender and Award of the Works to the Contractors shall be done by the PMC on behalf of the Client. iv. The tender drawings prepared by Architect shall consist of details of Architectural, Structural, HVAC, fire detection/alarm and firefighting, Plumbing, drainage, sewerage, water supply, internal roads, landscape and horticulture, internal and external electrification etc. complete including all other allied services necessary for making the structures and buildings functional. <p>(This activity is to be taken up in phases)</p>	<p>3.5 Months from the date of issue of clearance by client for a particular phase, work, building or package</p>
6.	Construction Stage	<ul style="list-style-type: none"> i. Issue of detailed working drawings as per schedule of work. ii. Issue clarification regarding adequacy of drawings during construction (if required). iii. Taking part in review meeting to be organized at site periodically to monitor the progress and quality of the work. iv. Taking approvals from local/ statutory bodies (if required during execution of the work). v. Assisting the PMC regarding approval of finishing materials (if required) during execution. <p>(This activity is to be taken up in phases)</p>	<p>4.0 Months from the date of issue of clearance by client for a particular phase, work, building or package.</p> <p>The stage will cover the duration of construction of the concerned phase/ work.</p>

7.	Post Construction Stage	<ul style="list-style-type: none"> i. Taking Completion/ Occupancy Certificates from local/ statutory bodies (if required). ii. Taking No Objection Certificates from Fire/ Forest/ Environment departments etc. (as required as per extant rules of the area). iii. Issue of "As Built Drawing" of Buildings and Services on reproducible papers for records of the Client. iv. Assisting Client/ PMC in any of the activities which are related with planning, design, approval and occupancy of the buildings and services etc. 	Within 60 days of issue of completion of a particular work by PMC.
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- i. More than one activity shall be started concurrently as per the schedule of activities as given in Clause No 3.5, so that the whole pre-constructional activities are performed within stipulated time mentioned in clause 3.6 from date of letter of Award (LOA) or issue of clearance to the architect. The allocation of time has been made based on general assessment. The appropriation of time may take place in individual activity. However, the time allocated for Pre-construction activities shall be 4.0 months for the phase/ work under consideration.
- ii. Time has been allocated for approvals of Master/ Development Plans by local/statutory bodies (if required), Conceptual Plan by the Client and Building Plan by the local/statutory bodies (if required) respectively. If any delays are caused on account of approvals by the local/statutory bodies/client beyond the allocated time, the delay shall be considered, if the completed drawings along with documents are submitted to local/statutory bodies or the client in time for approval with evidence. At the same time, it is also proved that no delay has been caused on account of Architect. In case approvals are not required, an undertaking to this effect is to be submitted by Architect to the Client/ PMC.
- iii. If the delay on account of approvals by local/statutory bodies is established after submission of the development plan/building plan etc. in time, the reasonable extension of time may be granted to the Architect after discussion with the PMC by the Client. However, no extension of time is allowed for delays attributable to the architect.

CHAPTER 4: FEE FOR ARCHITECTURAL SERVICES

4.1 Stages of Payment of Architectural Services Fee:

The following stage of payment shall be maintained:

Activity No.	Activity	Scope of Services in each activity	Stage of Lump-sum/ Cumulative Payment
1.	Master/ Development Plan and its approval	<p>i. Topographical Survey of the whole area including preparation of Contour Maps. Preparation of Master/ Development Plan of the whole Campus based on the requirements of the Client and local bye-laws and its approval by the Client and the Local/ Statutory Bodies (if required). The Master Plan shall consist of Line Plans of Buildings, zones of various components of the campus (academic, residential, landscape, recreation and sports facilities, etc) and Services of whole project within standard/ permissible FAR and Ground Coverage. The Client shall provide necessary assistance to the Architect in approval from Local/ Statutory Bodies in the form of issuing letters to local/ statutory bodies if required.</p> <p>ii. Architect shall also be responsible to arrange Environmental clearance if required. Only statutory charges levied by any Govt. agency for this purpose shall be reimbursed by client.</p>	<p>75 % of Lump-sum Fee quoted by the Architect shall be paid on submission of Master Plan to Client and its approval from Client and thereafter to the local/ statutory authorities (if required) and balance 25 % shall be paid on receipt of approvals from Local/ Statutory (if any).</p>
2.	Conceptual Plan and its Approval from Client and PMC including Preliminary Estimate	<p>i. Preparation of Conceptual Plan of various Buildings and Services including its Walk through presentation and its approval from Client and PMC.</p> <p>ii. Preparation of Preliminary Estimate of the Building and Services.</p> <p>(This activity is to be taken up in phases)</p>	<p>10% (Ten Percent) of accepted fee of the concerned phase/ work/ package.</p>

3.	Detailed Engineering Of Buildings & Services	<p>i. Preparation of Building and Services Plan as per applicable standards & Client's requirements. Its approval from Client and PMC.</p> <p>ii. Geo-technical Investigation of the Campus area as per advice of the PMC.</p> <p>iii. Structural Design of Structures and Services. The details/ calculations of Design should be made available to the Client/ PMC by the Architect. The `Architect shall be responsible to get the designs proof checked from any NIT or IIT or Central University.</p> <p>iv. Preparation of Drawings and Detailed Estimate of all works/ packages for the Project.</p> <p>(This activity is to be taken up in phases)</p>	40% (Forty Percent) of accepted fee of the concerned phase/ work/ package.
4.	Statutory Approval Of Building Plans & Services	<p>i. Approval of the Building Plan and Services by Local/ Statutory Authorities (if required) before start of execution of works if required. The Client shall provide necessary assistance to the Architect.</p> <p>Approval from specialized agencies like Fire Services, Environment and Forest Department, etc. at completion of works.</p>	50% (Fifty Percent) of accepted fee of the concerned phase/ work/ package.

5.	Tender Documents For Works Contracts.	<p>i. Preparation of Tender Documents consisting of Special Conditions of Contract, Specifications, additional/ special Specifications, Tender Drawings, Bill of Quantities etc. in consultation with the PMC.</p> <p>ii. The Notice Inviting Tender (NIT), Instructions to Tenders, General Conditions of Contract etc. shall be prepared by PMC as per their standard works procurement standards in consultation with the Client.</p> <p>iii. The NIT shall be published by the PMC on behalf the Client. The evaluation of Tender and Award of the Works to the Contractors shall be done by the PMC on behalf of the Client.</p> <p>iv. The tender drawings prepared by Architect shall consist of details of Architectural, Structural, HVAC, fire detection/alarm and firefighting, Plumbing, drainage, sewerage, water supply, internal roads, landscape and horticulture, internal and external electrification etc. complete including all other allied services necessary for making the structures and buildings functional.</p> <p>(This activity is to be taken up in phases)</p>	<p>60% (Sixty Percent) of accepted fee of the concerned phase/ work/ package.</p>
6.	Construction Stage	<p>i. Issue of detailed working drawings as per schedule of work.</p> <p>ii. Issue clarification regarding adequacy of drawings during construction (if required).</p> <p>iii. Taking part in review meeting to be organized at site periodically to monitor the progress and quality of the work.</p> <p>iv. Taking approvals from local/ statutory bodies (if required during execution of the work).</p> <p>v. Assisting the PMC regarding approval of finishing materials (if required) during execution.</p> <p>(This activity is to be taken up in phases)</p>	<p>80% (Eighty Percent) of accepted fee of the concerned phase/ work/ package.</p> <p>The fee under this stage will be paid on pro – rata basis on the amount of work executed by the works contractors.</p>

7.	Post Construction Stage	i. Taking Completion/ Occupancy Certificates from local/ statutory bodies (if required). ii. Taking No Objection Certificates from Fire/ Forest/ Environment departments etc. (as required as per extant rules of the area). iii. Issue of "As Built Drawing" of Buildings and Services on reproducible papers for records of the Client. iv. Assisting Client/ PMC in any of the activities which are related with planning, design, approval and occupancy of the buildings and services etc.	90% (Forty Percent) of accepted fee of the concerned phase/ work/ package.
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- i. The stage/ final payment to the Architect shall be released by the Client after certification from the PMC.
- ii. The accepted fee (in percentage) shall be taken into account for phase wise payment to the Architect for works (except for Master Plan which is to be paid on Lump-sum basis) as indicated in Chapter 4. The final payment of works will be released based on Built-up cost of all packages.
- iii. The statutory deductions i.e., income tax or other applicable taxes shall be deducted from the architect's bill as per extant rules.
- iv. The remaining 10% of Fee shall be paid after the work has been completed in all respects and all clarifications have been obtained from the Architect for their scope of services including completion of Defects Liability Period of last works contract.
- v. The value of the work taken into account for calculation of Fee shall be based on Preliminary Estimate (of concerned phase) initially which shall be updated by detailed estimate, Value of the work awarded to Works Contractor and finally based on Built-up cost of the Work.
- vi. The CUJ shall have the right to request in writing for additions alterations, modifications or deletions (within a specified limit) in the design and drawing of any part of the work. The Architectural Consultants shall comply with such requests without any extra cost.

Architectural Consultants shall not make any material deviation, alteration, addition to or omission from the work shown and described in the contract document except without first obtaining the written consent of the CUJ.

CHAPTER - 5

General Conditions

1. DEFINITIONS

- 1.1 "APPROVAL" shall mean and include the written consent, either manuscript, type written or printed statement, under signature or seal, as the case may be, given from time to time by the Client/ PMC or their authorized representative on documents, drawings or other particulars in relation to this Agreement.
- 1.2 "CLIENT" shall mean the Central University of Jharkhand.
- 1.3 "ARCHITECT" is the firm/person appointed by the Client for Master Plan and Architectural works which will include the preparation of i) Conceptual Plans, Architectural Plans ii) Design Details; iii) Building Plans, Working Drawings; iv) Estimates; v) Bid documents; vi) Technical Specification; vii) Bill of quantities and all connected ancillary works which should conform to civil works standards. The Architect shall also be responsible for taking approvals of Master Plans/ Building Plans etc. from local/ statutory bodies including taking up completion certificates (if required as per norms of the area). The PMC shall have superintendence over the work of the Architect.
- 1.4 "PMC (Project Management Consultant)" shall mean a Project Management Consultant who has been appointed by Client as Project Management Consultant.
- 1.5 "COMMENCEMENT DATE OF CONTRACT" with reference to Architectural Contract shall mean the date of written orders issued by the Client to the Architect to start the Work.
- 1.6 "COMPLETION PERIOD" shall mean the period from the commencement date of Award to Architect to physical completion of the last work of the last phase by the Works Contractor.
- 1.7 "CONTRACT" shall mean this AGREEMENT including all exhibits hereto and all documents herein specified and amendments which both the parties may hereafter agree in writing to be made to this Agreement.
- 1.8 "CONTRACTOR" shall mean any agency/firm/person appointed by the Client for carrying out construction of different types of works involved in the campus development projects.
- 1.9 "COORDINATING OFFICER" shall mean the officer nominated by the Client/ PMC or his representative as the case may be to whom all the matters related to the Project shall be referred to by the Architect for views, decisions, correspondences, approvals etc as per Scope of Services of the Contract and who shall provide and communicate such views, decisions, correspondences, approvals etc to the Architect on behalf of the Client.
- 1.10 "DRAWINGS" shall mean and include building and structural drawings, sketches showing plans, sections, design details and elevations related to the Projects together with modification and/ or revisions thereto as desired by the Client .

- 1.11 "MONTH" shall mean calendar month.
- 1.12 "PHYSICAL COMPLETION" with reference to Works Contract shall mean readiness of the project except in minor works, which does not prevent use/occupation of the project by the Client for the purpose for which the projects have been designed.
- 1.13 "PROJECT or WORKS" shall mean the building projects of the Client comprising of Academic buildings, hostels, residential quarters, roads, internal & external electrification, landscaping, sewerage, drainage, other allied services etc.
- 1.14 "SERVICES" shall mean the responsibilities to be discharged by the Architect for fulfilling the obligations under this Agreement.
- 1.15 "SPECIFICATIONS" shall mean and include schedules, detailed descriptions, statement of technical data, performance characteristics, standards as applicable and specified in the Works Contract and to be read and supplemented with CPWD specifications/ other applicable specifications and as required by the Client.
- 1.16 "SUB - CONSULTANT" shall mean any agency engaged by the Architect for providing any of the services wherever deemed to be necessary for the successful completion of the projects.
- 1.17 "VENDOR" means any agency/firm appointed by the Client/ PMC for supply of Materials / Equipments for the Project.
- 1.18 "WORDS" in the singular include the plural and vice versa.
- 1.19 "WRITING" includes matter either in whole or in part, in manuscript, typewritten, lithographed, cyclostyled, photographed or printed under or over signature or seal as the case may be.

2. Reference Standards for Services

The architect is required to provide services based on extant rules, local bye-laws, applicable standards and sound engineering practices. The reference of standards is detailed below for application in services of architect. The architect shall also refer the other required standard documents in case they are not mentioned below:

2.1 Development Plan, Architectural Plan, Building Plan and their approvals:

- 2.1.1 Master and Zonal Plan of the Areas (if any)
- 2.1.2 Applicable laws of fire service dept, environment & forest deptt. and other concerned agencies.
- 2.1.3 Client's requirements
- 2.1.4 UGC/ AIU Guidelines for space requirements (if any)
- 2.1.5 UDPFI Guidelines

2.2 Design of structures, Preparation of drawings, detailed estimation etc:

- 2.2.1 National Building Code, 2016
- 2.2.2 IS: 1893 (latest edition)
- 2.2.3 IS: 13920 (latest edition)
- 2.2.4 IS: 13828 (latest edition)
- 2.2.5 Other applicable standards
- 2.2.6 Sound Engineering Practice for detailed estimation
- 2.2.7 Green Building concepts / norms of LEED / TERI
- 2.2.8 Energy Conservation Building Code
- 2.2.9 Electricity rules
- 2.2.10 UGC/ AIU Guidelines for Space Requirements (if any)

2.3 Preparation of Bill of Quantities etc.

- 2.3.1 CPWD Schedule of Rate, (latest)
- 2.3.2 CPWD Schedules of Rates for Electrical, Fire Fighting Items
- 2.3.3 CPWD Schedule of Rates for HVAC Items (if any)
- 2.3.4 Additional Items based on Market Rate Analysis (Non-DSR Items) as per scope of work for standard materials/items proposed to be used in this work for civil, electrical, fire detection/alarm and fighting, lifts, HVAC, acoustics, Audio Visual including Public Address system, internal roads, drainage, sewerage, horticulture works etc.

2.4 Preparation of Bid Documents

- 2.4.1 CLIENT Standard Bid Documents for Procurement of work
- 2.4.2 Conditions of Contract of CPWD (latest edition)
- 2.4.3 Works Manual, 2012 of CPWD (updated)
- 2.4.4 CPWD Specifications, 2009 (updated)
- 2.4.5 Additional Specifications for Non-Schedule rate Items
- 2.4.6 Guidelines of Ministry of Finance for Procurement of Works, Goods and Services and GFR 2005.
- 2.4.7 Other Sound Engineering Practice

3. Force Majeure

If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reason of any war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics, strikes, lockouts or acts of God (hereinafter, referred to events') provided, notice of the happening of any such event is given by either party to the other within 10 days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance/ delay in performance, and works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Client as to whether the works have been so resumed or not shall be final and conclusive, PROVIDED FURTHER that if the performance in whole or in part of any obligation under this contract is prevented or delayed by

reason of any such event for a period exceeding **90 days**, either party may at its option terminate the contract by giving notice to the other party.

4. Notice

Any notice to be given hereunder will be sent by registered post/courier/hand receipt at the last known head office address of the "Architect" and shall be deemed to have been served at the time at which the letter would be delivered in the ordinary course of post.

5. Insurance to be made by Architect

Professional Liability Insurance (PLI) for deficiencies / inadequacies in the design of structures and other components for the period of five years with a minimum coverage equal to the Architect's total accepted fee as per LOA shall be taken by Architect.

It may please be noted that all insurances and policies should start from the date of commencement of services and remain effective as per relevant requirements of Contract Agreement, or up to completion of scope of services, whichever is longer.

6. FAIRNESS AND GOOD FAITH

A. Good Faith

The Architect and Client 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.

B. Operation of the Contract

The Parties recognize that it is impractical in this contract to provide for every contingency which may arise during the life of the Contract and the parties hereby agree that it is their intention that this contract shall operate fairly as between them and without detriment to the interest of either of them and that, if during the term of this contract either party believes that this contract is operating unfairly, the parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness but failure to agree on any action pursuant to this clause shall give rise to a dispute subject to Arbitration to be dealt as per relevant clause.

7. Obligation of Architect

- 7.1 Architect may be asked to get the structural drawings proof checked from any NIT or IIT or Central University. No extra payment shall be made to the Architect in this regard.
- 7.2 Architect/Sub-Consultant shall carry all modifications as desired by Client/PMC.
- 7.3 Architect shall supply detailed computations and back-up of design sheets to Client/PMC.
- 7.4 Architect shall submit to all statutory authorities concerned drawings / reports to the scale prescribed by the authorities and also shall submit required sets of drawings to obtain approval from statutory authorities (if required).
- 7.5 Architect shall supply all drawings & designs on Auto CAD, Staad - Pro /or any relevant computer programmes. Copy of final design/drawings shall be made available to Client/PMC in

soft copy also.

- 7.6 The Architect shall be appointed by the Client. However, the Architect shall work under the superintendence of the PMC. The stage/ final payment to the Architect shall be released by the Client after certification from the PMC.
- 7.7 During construction phase, the Architect shall supply 6 (six) sets of all Good for Construction Drawings (Structural, Architectural, Services etc.) of all the structures i.e., buildings and services structures like drainage, sewerage, water supply, firefighting, roads, horticulture, internal and external electrification, HVAC, lifts, rain water harvesting, firefighting, LAN/WAN, communication and public address system, acoustics, sound/ thermal insulation etc. to the PMC as per schedule.
- 7.8 The Architect shall make the "As Built Drawings" of the buildings and services structures along with preparation of Maintenance Manuals for different components of the complex.
- 7.9 The co-ordination drawing may be required during execution of the work to ensure integrated construction of all the components. It is the responsibility of the Architect to prepare the additional drawings required for proper execution of the works which may be visualized during construction work

8. Obligation of client

- 8.1 The client shall provide the copy of Plan of Site available with them.
- 8.2 The client shall provide all required inputs about the utilities and functional requirements of the buildings to optimize the plan.
- 8.3 The client shall provide all possible assistance to the architect in getting approval of buildings from local/statutory authorities (if required)

9. General

9.1 Adequacy of Design

The services to be rendered by Architect shall be based on National Building Code 2005, relevant applicable codes and sound engineering practices. Major decision and specification shall be reviewed by Client/ PMC to the extent desired. Approval of any design / drawing by Client shall however not absolve the Architect of their responsibilities regarding the adequacy of design and proper functioning of the works. The Architect shall be fully responsible for the adequacy, accuracy and quality of entire services performed by them in accordance with accepted standards of safety, earthquake requirements, environment protection, rain water harvesting, public health and energy efficiency.

9.2 ADDITIONS AND ALTERATIONS

The Client shall have the right to request in writing changes, additions, modifications or deletions in the design and drawing of any part of the work and to request in writing additional work in connection therewith and the Architect shall comply with such request after the final Building and Services Plans are made and approved.

9.3 Foreclosure of contract

The Client reserve the right for foreclosure of contract without assigning any reason whatsoever. The payments in the event of foreclosure of contract shall be restricted to the amount defined / stated

for each activity independently and in the event of such termination, the Architect shall be entitled to all such fee for the services rendered and liable to refund the excess payment if any made to him over and above what is due in terms of this agreement on the date of termination and the Employer may make full use of all or any of the drawings prepared by the Architect.

9.4 Rescinding of contract

In the event of failure on the part of the Architect to complete work in time or to the complete satisfaction of the Client or in the event of committing breach of any one or more of terms and conditions of the Agreement, Client shall be entitled to rescind this contract without prejudice to its right to claim damages or remedies under the law. The period of notice to be given to rescind the contract will be 30 days and in the event of such termination, Architect shall be liable to refund the excess payment if any made to him over and above due to him on the date of termination and Client will be entitled to make full use of all or any of the drawings / documents prepared by Architect. In such case Client shall have power to engage another Architect to carry out the balance work debiting the excess amount if any so paid to Architect. Architect shall pay to Client on demand, such excess expenditure within 30 days of issue of notice failing which Architect shall be debarred from consultancy jobs of Client in future besides taking other course of action under law to recover such amount.

9.5 Copyright / proprietary right

The drawings, design, plan, related details prepared and acquired by the Architect for the work entrusted to him under this agreement will become the property of the Client. The drawings, design, plan, related details cannot be issued to any other person, firm or authority or used by the Architect for any other project without prior permission of the Client. However, the drawings and design can be utilized by Client for other works and Architect shall not have any objection whatsoever.

9.6 Contract Agreement

After acceptance of bid a formal contract agreement shall be executed on a non-judicial stamp paper of Rs. 100/- (Rupees One hundred only), the cost of the same shall be borne by the Architect.

9.7 Site Meeting

The site meeting shall be held during execution of the work with the architect to sort out any clarification or to take any missing information in connection with the work. The meeting may be convened by the client/ PMC as per the need. However, at least one routine meeting shall be held in two months.

9.8 Compensation for Error/ Variation

The Architect is responsible for making realistic detailed estimate and Bill of Quantities (BOQ) based on the drawings. The unrealistic estimation of quantities results in undue litigation during construction phase. The Architect shall be required to pay compensation to the client for unrealistic and wrong estimation of quantities meant for BOQ. The amount of compensation shall be decided by the client in consultation with PMC. However, for minor variations in quantities (maximum up to plus/minus 10%) with respect to drawings, no compensation shall be imposed on Architect. The amount of compensation shall not exceed more than 10% of the fee of the Architect.

**Proforma for Financial Bid
(To be put in sealed cover)**

Ref No.....

Date.....

The Executive Engineer
Central University of Jharkhand
Ranchi

Sub: Invitation Of Expression of Interest For Developing Permanent Campus of Central University of Jharkhand at Ranchi

Dear Sir,

In response to subject work, we hereby quote our Consultancy Fee as under:

Description of Work	Architectural Consultancy Fee Excluding	
	In Figures	In Words
Master Plan with details as per Activity 1 of Clause 3.5 and its approval (if required). (Fee to be quoted as Lump-sum amount)		
Providing Architectural and Detailed Engineering Services for development of Campus Master Plan, detailed building plans, detailed design of structures and services, site development, landscape design etc. for Central University of Jharkhand Campus as per Clause 3.5 except Master Plan. (Fee to be quoted as % of Built-up Cost)		
Total Fee (Rs.)		

Note:

For evaluation of Financial Bid, the value of the Built-up cost of whole project shall be considered as Rs. 600.00 Crores. Architectural Consultant will be entitled to get Service Tax on the fee quoted above at the rates as stipulated by Govt. of India from time to time. Presently, the GST is payable at 18 % on fee.

Thanking you,

Yours faithfully,

Signature with Name & Designation of the Bidder
(Authorized Seal)

Date:

CHECK LIST

No:.....

1. EMD of Rs. 1,00,000/-by way of DD no. Dated..... in favour of “Central University of Jharkhand” payable at Ranchi.
2. DD no. dated for Rs. 10,000/-in favour of “Demand Draft in favor of “Central University of Jharkhand, Ranchi” payable at Ranchi towards cost of Tender document.
3. Details of similar projects handled by bidders in last 5 years giving date of start, date of completion, built up area of the Project, cost of project and delay if any attributable to bidder. Photographs of work may also be given if available.
4. List of projects in hand with description of projects, cost, time limit, targets etc.
5. Certified copies of Audited Balance Sheet & Income Tax Returns for the last 5 years immediately preceding FY-2012-13.
6. Report explaining Architects approach particularly to this project describing implementation strategies starting from conceptualization, phasing, development approach, time management etc.
7. Time schedule for complete development of total project in the form of BAR CHART.
8. List of Experts with applicants, to be made available for this project.
9. The composition of the core team to be deployed on permanent basis. The number of officers and their levels may be indicated.
10. An undertaking that team deployed for the execution of the project will not change without the prior consent of CUJ.
11. Financial Bid in the Prescribed Format as given in Annexure-II in a sealed envelope.
12. The bid document along with its annexure either purchased or downloaded from the web shall be duly signed on each page by the bidder and enclosed along with technical bid in Envelope 1

NOTE: The Check-List shall be duly filled in and submitted along with the Technical Bid.