

## **Scope of Work and Terms & conditions**

### **1 Name of Work**

"Providing comprehensive Architectural & Engineering Consultancy services for construction of SPS type Double storied classroom block, faculty office, single storied Multi-Purpose hall and design studio at Delhi Technological University, Bawana road campus, Delhi"

### **2 Salient features of the work**

Double storied classroom block, faculty office, single storied Multi-Purpose hall and design studio is proposed to be constructed for the accommodation of increasing student's as well as faculty's strength at DTU Bawana Road campus and its main feature is as under: -

- i) Detail for the approx. covered area available at various floor level for various SPS (Semi permanent structure) type buildings with approximate estimated cost of construction are as under :

S. No.	Facility	Area covered at each floor (sqm)	No. of floors	Total area (sqm)	Estimated cost (Rs.)
1.	Classrooms	600.00	2	1200.00	1,44,00,000/-
2.	Faculty offices	375.00	2	750.00	90,00,000/-
3.	M.P. Hall	3000.00	1	3000.00	3,60,00,000/-
4.	Design studio	930.00	1	930.00	1,11,60,000/-
			<b>Total</b>	<b>5880.00</b>	<b>7,05,60,000/-</b>

### **2.2 Estimated Cost of Civil Works**

2.2.1 The estimated Cost of Civil Works for which Architectural & Engineering Consultancy services are required is about Rs. 7.06 crores.

2.2.2 However, the final cost of the project may differ as per the design. This cost would, in fact, be the BOQ based cost worked out as per the layout, design and drawings as per the detailing done by the Architect in terms of approvals given by DTU authorities.

### **3 Details of works to be executed for construction of SPS classrooms, faculty offices, M.P. hall and design studio**

#### **3.1 SPS classrooms would cover the followings**

- A. Double storied SPS classroom block with a total 10 no. of classes having covered area of about 600 sqm. approximate and capable of accommodating 70-80 students in each classroom.
- B. Sufficient toilet blocks to facilitate all 10 SPS classroom's student's strength.
- C. Other necessary facilities such as drinking water trough, server room etc.
- D. Layout of connecting approach pathways.
- E. Drinking water pipeline and drainage system.

#### **3.2 Faculty offices would cover the followings:**

- A. Double storied block for faculty offices having covered area of about 375 sqm. for each floor.
- B. Sufficient toilet blocks to facilitate the desired strength of faculty that is to be accommodated in the block.
- C. Other necessary facilities such as drinking water trough, server room etc.
- D. Layout of connecting approach pathways.
- E. Drinking water pipeline and drainage system.

### **3.3 Multipurpose Hall would cover the followings:**

- A. Single story block having covered area of about 3000 sqm to accommodate around 2000 persons at a time.
- B. Layout of sitting plan, isle and stage area.
- C. Sufficient toilet blocks to facilitate the desired strength of faculty that is to be accommodated in the block.
- D. Other necessary facilities such as green room, drinking water trough, server room etc.
- E. Layout of connecting approach pathways.
- F. Drinking water pipeline and drainage system.

### **3.4 Design studio would cover the followings:**

- A. Single story block having covered area of about 930 sqm to accommodate around 120 persons for workshop and dedicated space for classroom & faculty accommodation at a time.
- B. Layout of discussion area, classrooms etc.
- C. Sufficient toilet blocks to facilitate the desired strength of faculty that is to be accommodated in the block.
- D. Other necessary facilities such as drinking water trough, server room etc.
- E. Layout of connecting approach pathways.
- F. Drinking water pipeline and drainage system.

**3.5** It may be noted that the area given at Para 2 (i) are indicative and shall be finalized based on design prepared by the Architect and approvals granted by DTU authorities.

**3.6** Sufficient circulation space keeping in mind the density of block shall be provided.

**3.7** The shed would be constructed using "Composite Insulated Sandwich Panels" with provision for proper rainwater drainage system. Provision shall also be made for proper ventilation by adopting measures such as ridge ventilation and turbo ventilation etc.

**3.8** The Architect, in its design, would adopt cost saving and environment friendly measures such as energy efficient lighting system, usage of solar energy based Lighting/ power generation, rain water harvesting etc.

**3.9** The Architect would plan all related facilities/ utilities including electricity supply, water supply, drainage etc. required for the block.

## **4 Detailed specification of Work**

**4.1** The Scope of Work broadly consists of preparation of detailed design, drawings, Bills of Quantity (BOQs), detailed cost estimates and tender documents for Civil, Electrical, PA system, sound system, projector etc. related to construction of classrooms, faculty offices, multi-purpose hall and design studio.

### **4.2 The Scope of Work shall include the following components**

- i) The architect/consultant should visit the site where construction is to be taken up and check the feasibility in accordance with the existing infrastructure.
- ii) Preparation of Concept Plan for the complete area based on requirements given by DTU authorities. The conceptual plan shall aim for space classification and optimization for economic and efficient use of available space. It shall have the broad details of the whole area earmarked for construction of classrooms, faculty offices, multi-purpose hall and design studio along with schematic details of water supply, rainwater harvesting, drainage, sewerage, firefighting, internal roads/pathways, lifts (if needed), landscaping, external beautification, electrical load calculation, internal electrification, external electrification including fire detection system, fire alarm system, HVAC, CCTV etc.
- iii) Obtaining approval of the Conceptual plan from DTU authorities followed by drawings in soft and hard copies.

- iv) The Architect firm may be asked to submit several views, alternative models (as decided by the Client / Owner) & the plan and architectural view of the buildings. Rates for preparation of the 3d views on computer software are deemed to be included in the quoted rates.
- v) Preparation of Development Plan, Building Plan and Layout plan with respect to existing surrounding structure for the work as per the requirement of DTU along with necessary inputs.
- vi) Preparation of preliminary cost estimates based on CPWD Plinth Area Rates (PAR). Cutting and filling work, as may be required, is to be quantified and cost estimates prepared as per CPWD Plinth Area Rates (PAR).
- vii) Detailed engineering including design of buildings, preparation of drawings, detailed cost estimation, preparation of technical specifications, Bills of Quantity (BOQs) and tender documents etc. for Civil, Electrical, works etc. including water supply, drainage, sewerage, rainwater harvesting, firefighting, internal roads / pathways, lifts (if needed), landscaping, external beautification, electrical load calculation, inventory preparation, internal electrification, external electrification, fire detection system, fire alarm system, HVAC, LAN / communication system, CCTV & Security system, PA system, access control system (if required). List of approved makes with at least three alternatives (within same range of cost) etc. and its approval from client.
- viii) Preparation of Good for Construction Drawings in detail for each structure including buildings, preparation of drawings, detailed cost estimation, preparation of technical specifications, Bills of Quantity (BOQs) and tender documents etc. for Civil, Electrical, works etc. including water supply, drainage, sewerage, firefighting, internal roads / pathways, boundary wall, lifts (if needed), landscaping, external beautification, internal electrification, external electrification, fire detection system, fire alarm system, HVAC, drawings for internal wiring, cable route, LT and HT panels, single line diagram, fire detection system, fire alarm system, HVAC, cable trench for HT and LT cable laying etc. Architect shall release six sets of drawings with soft copy of each drawing in Auto CAD on USB Drive.
- ix) If some old structures exist at site, it is required to be dismantled. Architect shall be required to prepare proposal for getting approval for dismantling of the old structures. No extra payment shall be made for the same.
- x) Obtaining approval of the construction plan, if any, from local bodies per statutory requirements. Necessary fee / charges of statutory / Local bodies shall be borne by Architect.
- xi) Providing market rate analysis for non-schedule items along with documentary proof (minimum three quotations) for market rates.
- xii) Assisting DTU authorities in getting all requisite clearances / NOCs from statutory / local bodies etc. if required at any stage of project.
- xiii) Preparation of tender documents for the works as per DTU's requirements.
- xiv) All other related structures / foundations / floors / walls etc. of building shall be designed by the architect. The architect shall be responsible for getting his design and drawings vetted from approved agency appointed by DTU. Charges for proof checking shall be borne by the Client.
- xv) Visits to site for clarifications, discussions, review, revision of drawings etc. in connection with the design and drawing during the execution of the project including acceptance of drawings / design by the Client shall be carried out by the architect. Nothing extra shall be paid on this account.
- xvi) Prepare and issue additional working drawings and details if required for proper execution of works during construction.
- xvii) Checking and approval of fabrication drawings submitted by the contractor / vendors, if any.
- xviii) Obtaining completion-cum-occupancy certificate from local / statutory bodies, NOC and clearance from enforcement agencies for the occupancy of the building, if necessary.

- xix) The scope of work given above is purely indicative. Any other services required to be rendered at a later stage in connection with the execution of the work, shall be provided by the Architect.

### 4.3 Incidental Services

- The broad scope of services is classified in terms of activities at Clause No. 4.2. The entire incidental services related with the activities shall be deemed included in the scope of services. No extra payment shall be made for the incidental services.
- Revision of drawings, design as per the requirement of the authorities shall be made as per requirement and no extra charges shall be payable on this account.
- Review & augmentation of existing services (sanitary & Plumbing, electrical, HVAC etc.)

## 5. Deliverables and Time Schedule

5.1 The time allowed for the preparation of detailed design, drawings and tender documents etc. is 45 days including time for approval by local bodies as per statutory requirements, if any.

5.2 The activities at Clause 4.2 (i) to (xvii) of scope of work are basically divided in three phases viz Pre-construction phase, construction phase and Post-construction phase. The activities to be performed by the Architect are as per the following schedule:

S. No	Deliverables	Time schedules	Remarks, if any
i)	Preparation and obtaining the approval of concept plan for the construction of SPS classrooms, faculty offices, M.P. hall and design studio from DTU authorities.	Within 07 days from date of issue of LOA	
ii)	Preparation of development plan, the building plan and layout plan for the whole area etc. in terms of scope of work.	Within 10 days from date of issue of LOA	
iii)	Preparation of preliminary cost estimates based on latest CPWD Plinth Area Rates (PAR)	Within 15 days from date of issue of LOA	Based on the concept plan, development plan, building plan and layout plan approved by DTU authorities.
iv)	Detailed engineering including design of buildings, preparation of drawings, detailed cost estimation, preparation of technical specifications Bills of Quantity (BOQs) and tender documents etc for Civil, Electrical works, PA system, LAN, projectors, sound system etc. plus dismantling of old existing structure in terms of para 4.2 (vi) to (xi) of scope of work.	Within 22 days from date of issue of LOA	Based on approval of Building Plans etc. by local bodies as per statutory requirements, if required.
v	Preparation of Good for Construction Drawings in detail for each structure including buildings, preparation of drawings, detailed cost estimations, preparation of technical specifications, Bills of Quantity (BOQs) and tender documents etc. for Civil, Electrical works PA system, LAN, projectors, sound system etc. plus dismantling of old existing structure and obtaining approval of the construction plan and providing market rate analysis, evaluation of offers received and all requisite clearances etc. in terms of para 4.2 (vi) to (xi) of scope of work.	Within 30 days from date of issue of LOA	
vi	Preparation of tender documents for the works in terms of para 4.2 (xii) of scope of work.	Within 35 days from date of issue of LOA	
vii	Services during construction stage as per Clause 4.2 (xiii) to (xvi) of scope of work.	During the progress of the construction phase	
viii	Services during post construction stage as per Clause 4.2 (xvii) to (xix) of scope of work.	Post construction phase	

**5.3** Time is the essence of contract. The contractor shall make all efforts to complete the work within the validity of the contract. However, if because of some reason it is expected that the work will not be completed in time, the contractor shall apply for time extension in writing, 15 days before the expiry of the validity of the contract, which will be considered on the merit of the case. However, extension of time may be granted with proper reason and justifications by the competent authority and his decision will be final and binding. In the event of failure on part of the Architect to complete the work within time schedule as specified above or subsequently notified to him the consultant is liable to pay compensation @1% (one percent) per week subject to a maximum of 10 %(ten percent ) of total fees.

**5.4** The selected architect/consultant firm shall be required to depute following minimum staff exclusively for this work.

1. Team Leader i.e. a Principal Architect. Principal Architect should be a degree holder in Architecture having sufficient experience to handle similar type of work and registered with Council of Architecture. Certificate of registration with Council of Architecture and experience certificates of Principal Architect duly signed & certified to be submitted along with the bid.

The Architect shall be required to submit the details of such staff and post them for the awarded work within 7 days of issue of letter of Acceptance / LOA to him.

## **6. Price Schedule**

**6.1** The Bidders shall quote Lump-sum fee as per the price schedule given in Annexure-II, III, IV & V.

**6.2** Prices / rates quoted by the bidder in respect of the tender shall be after considering all input credits and inclusive of all the taxes, duties and cess etc. other than GST on Contract Price. The GST liable on Contract price shall be reimbursed in addition to the Contract Price as mentioned below.

In the bill for the works done, the contractor shall charge GST separately and shall pay to the Government within due date prescribed under the respective Act.

GST will be paid to the contractor by the Engineer – in – Charge after satisfying that it has been actually and genuinely paid to the Government as per the applicable GST rate on submission of taxable invoices and after the same is reflected in the name of the Client / Beneficiary. Regarding payment of the GST to the contractor, the decision of Engineer – In – Charge shall be binding on the contractor.

**6.3** GST registration certificate, as applicable to be furnished at the time of submission of bid.

**6.4** Bidders shall be liable for payment of income tax liable on their fees. For the tax deduction at source, necessary TDS certificates shall be issued by DTU.

## **7. Payment Schedule**

Payment schedule in terms of the Scope of Work and Deliverables given at Para 4.2 & Para 5.0 would be as under: -

S. No.	Payment stage	%age fee payable
i)	Deliverables as per items (i), (ii) & (iii) of para 5.2 above and approval by DTU client and by local government bodies as per statutory requirements.	15 %
ii)	Deliverables as per items (iv) & (v) of para 5.2 above and approval by DTU and by local government bodies as per statutory requirements.	35 %
iii)	Deliverables as per item (vi) of para 5.2 above and approval by DTU authorities.	30 %
iv)	On completion of supervision & obtaining completion-cum-occupancy certificate from local/statutory bodies, NOC and clearance from enforcement agencies for the occupancy of the new blocks, reference item(vii) & (viii) of para 5.2 above.	20 %

**8. Liquidated Damages**

In case, the firm fails to complete the work within the Schedule time because of failures not attributable to DTU, the firm shall pay to DTU by way of liquidated damages and not as penalty. The rate of liquidated damages would be 1 % (one percent) per week or part thereof of the contract price, subject to a maximum of 10 % of the contract price.

**9. Security Deposit**

Security deposit of 10 % shall be deducted from each running payment and would be refunded after completion of work.

**10. Arbitration**

If at any time in question, dispute or differences what so ever arises between DTU and the Contractor with regard to or in connection with the offer, whether during the progress of work or after its completion, such disputes or differences shall be mutually discussed and settled with executive Engineer, DTU. In case no settlement is arrived at, the decision of Hon'ble Vice Chancellor, DTU shall be final and binding on the parties to the dispute.

**11. Risk and Cost**

In case the firm fails to complete the work as per above work order, then at the discretion of the management of DTU; the work shall be got done from other agency at your risk and cost after giving you as even days' notice. DTU shall not be responsible for the security and safety of the agency's instruments as well as personnel. Contractor has to make their own arrangements for safety and security of instruments as well as personnel.

**12. Force Majeure**

War, invasion, revolution, riots, sabotage, lockouts, strikes, work shut downs imposed by Government, acts of legislative or other authorities, stoppage in supply of raw materials, fuel or electricity, breakdown of machinery, act of God, epidemics, fires, earthquakes, floods, explosives, accidents and navigation blockages or any other acts or events what so ever, which are beyond reasonable control of Contractor and which shall directly or indirectly prevent completion of the project within the time specified in the agreement, will be considered force majeure. DTU shall be granting necessary extension of completion date to cover the delay caused by force majeure without any financial repercussions.

**13. OVERALL EVALUATION FOR SELECTION OF CONSULTANT**

- 13.1** The final evaluation will consist of summation from the 2 components, i.e. (A) Technical Bid Stage and the (B) Financial Bid combining to a total of Marks i.e. A+B.
- 13.2** In the final score, 70% weightage will be given for marks achieved in Technical Bid Stage (component A) and 30% weightage will be given for marks achieved in Financial Bid (component B).
- 13.3** Component A shall consist of an aesthetic design, energy efficient design, cost effective planning etc.
- 13.4** Component B shall consist of financial bid value (justified). The financial bid should be submitted for each work separately in separate envelope.
- 13.5** On the basis of the combined weighted score for Technical Bid Stage and Financial Bid, the qualified Bidder shall be ranked in terms of the total score obtained. The proposal obtaining the highest total combined score in evaluation of Technical Bid Stage and Financial Bid will be ranked as H-1 followed by the proposals securing lesser marks as H-2, H-3 etc. The proposal securing the highest combined marks and ranked H-1 will be invited for negotiations, if required and shall be recommended for award of contract.
- 13.6** In case more than 1 (One) Bidder has identical highest marks in the overall evaluation then the Bidder scoring higher marks in Technical Bid will be recommended for Award of work.
- 13.7** DTU reserves the right to reject any or all the proposal with assigning any reason.

**14. Submission of Bids**

Proposal should be submitted in two separate envelopes, namely Technical bid and Financial bid separately for each work i.e. in four (04) envelopes in case the firm is participating in all the four works. The Technical and Financial bids duly sealed in separate envelope must be kept inside a single envelope and clearly super scribed as "**Providing Comprehensive Architectural & Engineering Consultancy services for construction of Double storied , classroom block, faculty office, single storied Multi-Purpose Hall and design studio at Delhi Technological University, Bawana road campus, Delhi**".

- ❖ Technical Bid (Envelope-I) and Financial Bid (separately for each work i.e. in four (04) envelopes in case the firm is participating in all the four works) for proper identification.
- ❖ It shall be responsibility of the bidder to ensure that the bid is submitted in proper envelopes.

#### **14.1 Technical Bid**

The Technical bid to be submitted shall consists of following:

- i. Information regarding firm's members & sub-consultant for the project.
- ii. Appreciation of project.
- iii. General approach & Methodology.
- iv. Concept Design (including broad scheme of various components of the scheme with full justification for adopting any particular scheme and its effect on cost and time period of construction, cost of construction and architectural form of various structural components may also be submitted along with the concept design).
- v. Details of key personnel (proposed to be deployed on this consultancy service along with the job to be assigned to each of them).
- vi. Total manpower deployment schedule.
- vii. Work Program (in the form of Bar Chart).
- viii. GST Registration no.

#### **14.2 Financial Bid**

Financial bid should include the cost of all the works as detailed in the Terms of reference and other additional activities as felt necessary by the department for completing the job. The price bid shall also include the cost of all visits of the Consultant to site of work for the preparation of the scheme and approval by respective agencies and also during the construction as and when required by the Engineer-in-Charge in addition to the cost of making presentation before DTU or to any other body on behalf of DTU. The cost of office expenses, stationary, traveling, attending meeting and related expenses shall be deemed to be included in the price bid. The expense for obtaining advice from any other agency for completing the job has to be incurred by the consultant, if needed.

The quoted fee of this consultancy agreement will not be increased; neither due to cost overrun of main project, extension of time nor due to any reason what so ever.

#### **15. Presentation of Project**

The Bidders shortlisted based on technical bids by the board of assessors of DTU have to make a presentation before the Board of Assessors to be constituted by the competent authority to ascertain the adequacy of bids for the complete works/services under the specifications and documents failing which the financial bid of such bidder shall not be opened and will be treated as rejected.

The presentation shall cover, in sufficient detail, the appreciation of the project, method statement for the assignment and methodology, conceptual design, work program, implementation strategy, proposal to save time and cost, etc. The objective of presentation is to evaluate the bidder regarding their understanding and preparedness for the assignment and get clarifications, if any, as required by Engineer-in-Charge. During the evaluation of technical bid, maximum 70 marks have been assigned to be decided by Board of Assessors after successful presentation by the bidder as mentioned in evaluation criteria.

#### **16. Proposal Evaluation**

A two-stage procedure will be adopted in evaluating the proposal. In the first stage, a technical evaluation will be carried out. Only those technical proposals, found qualified by the Selection Board, shall be considered for financial evaluation in the second stage. The firms will be ranked using combined technical and financial scores, as indicated in the Data Sheet.

#### **17. Submission Requirements**

##### **(A) Concept Design Report**

This should be bound booklet of A3 size in horizontal format. The report shall provide the following:

- i. The architects" Visualization of the Project.
- ii. The design proposal highlighting how it addresses the various issues discussed and any other points which the architect has felt relevant to the design problem. May use sketches to explain design concepts, inter-relationship and innovations.
- iii. Estimated cost of the project subhead-wise.

**(B) Drawings**

The number of drawing is to be restricted to a maximum of 20 nos. A-0 size white sheets preferably in the scale of 1:100 and supported by necessary sketches, computer generated 3-D views, both inside and outside showing adjacent building and the use of materials.

**(C) CD-ROM (PENDRIVE)**

The entire proposal including the drawings and report should also be submitted on CD-ROM. All drawings submitted in electronic format should be in "dwg" format readable in Auto CAD.

18. (a) The quotations may be submitted in the office of Executive Engineer, Delhi Technological University, Administrative Block, Engineering Cell, Shahbad Daultapur, Bawana Road, Delhi-110042 up to 5:00 P.M. on 27.12.2017.

(b) A pre bid meeting is also proposed before the final submission of Architects/Consultants for optimum satisfaction of design/drawing and the same is scheduled at 12<sup>th</sup> December, 2017 at 11:30 A.M. at Room no. 307, Second floor, Administrative Block, Delhi Technological University, Shahbad Daultapur, Bawana Road, Delhi-110042.

**Price Schedule**

Annexure-II

<b>S. No.</b>	<b>Item</b>	<b>Amount (Rs.)</b>
<b>1.</b>	<b>Providing comprehensive Architectural &amp; Engineering Consultancy services for construction of :-</b>	
<b>1.1</b>	<b>Double storied classroom block</b>	
	GST (%age_____)	
	Total fee including GST (Rs.)	

**Note: Quoted fee shall be inclusive of all taxes, duties, cess etc. except GST. Nothing extra will be paid over and above the quoted fee.**

**Signature with seal of Authorized signatory**

**Price Schedule**

Annexure-III

S. No.	Item	Amount (Rs.)
1.	Providing comprehensive Architectural & Engineering Consultancy services for construction of :-	
1.1	Double storied faculty office	
	GST (%age____)	
	Total fee including GST (Rs.)	

**Note: Quoted fee shall be inclusive of all taxes, duties, cess etc. except GST. Nothing extra will be paid over and above the quoted fee.**

**Signature with seal of Authorized signatory**

**Price Schedule**

Annexure-IV

S. No.	Item	Amount (Rs.)
1.	Providing comprehensive Architectural & Engineering Consultancy services for construction of :-	
1.1	Single storied Multi-Purpose hall	
	GST (%age____)	
	Total fee including GST (Rs.)	

**Note: Quoted fee shall be inclusive of all taxes, duties, cess etc. except GST. Nothing extra will be paid over and above the quoted fee.**

**Signature with seal of Authorized signatory**

**Price Schedule**

Annexure-V

S. No.	Item	Amount (Rs.)
1.	Providing comprehensive Architectural & Engineering Consultancy services for construction of :-	
1.1	Design studio	
	GST (%age____)	
	Total fee including GST (Rs.)	

**Note: Quoted fee shall be inclusive of all taxes, duties, cess etc. except GST. Nothing extra will be paid over and above the quoted fee.**

**Signature with seal of Authorized signatory**