



Annex A- TERMS OF REFERENCE

Design Services

Project Title : **CONSULTING SERVICES ON ARCHITECTURAL DESIGN REVIEW, STRUCTURAL DESIGN REVIEW, PLUMBING, SANITARY DESIGN, ELECTRICAL DESIGN, FIRE DETECTION AND ALARM SYSTEM, MECHANICAL DESIGN OF ELEVATOR AND COST ESTIMATES FOR CONSTRUCTION OF FOUR STOREY ACADEMIC BUILDING**

1. PROJECT DESCRIPTION

1.1 Background and Rationale:

In anticipation of the growth of enrollees of the Kalinga State University, physical development is likewise attached to this growth. Currently, the Kalinga State University has three different Campuses, Bulanao Campus as the Main Campus, Dagupan and Rizal Campuses as its network. Considering the fact that KSU Dagupan Campus has a shared claim of landownership with the Tabuk City National High School, the said campus could no longer accommodate further expansion to put up additional facilities for the two Colleges in the Campus namely: College of Liberal Arts (CLA), and College of Business, Accountancy and Public Administration (CBAPAE). Hence, a Four Storey Academic Building is proposed that will be situated in the KSU main campus.

The Infrastructure Unit of the Kalinga State University has already drafted the plan, facilitated the Implementation of the Building's Initial Cost, and has already implemented some of the portions of the building. However, the over-all design could be hardly realized considering that some aspects of the design should be performed, reviewed and consulted to a reliable consultancy firm. Thus, Review of the drafted design and performance of other design disciplines is proposed in this particular project.

1.2 Specific Objectives

The specific objectives of the project are the following:

- 1.2.1 To come up with a review of the Structural design, Electrical design and Architectural design of the Four Storey Building.
- 1.2.2 To provide signed and sealed architectural design, drawings, plans and specifications of the Four Storey Academic building incorporating some recommendations in the existing design;
- 1.2.3 To provide signed and sealed structural analysis structural details, drawings, plans and specifications relative to the Four Storey building incorporating some recommendations in the existing design;
- 1.2.4 To provide signed and sealed electrical design, analysis, drawings, plans and specifications relative to the Four Storey building incorporating some recommendations in the existing design; (this includes Professional Electrical Engineer).



- 1.2.5 To provide signed and sealed plumbing and sanitary lay-out, drawings, plans and specifications relative to the Four Storey building incorporating some recommendations in the existing design;
- 1.2.6 To provide signed and sealed mechanical lay-out, drawings, plans and specifications which includes elevator system and fire detection and alarm system and fire suppression system relative to the Four Storey building incorporating some recommendations in the existing design;
- 1.2.7 To provide Bill of Quantities and estimates, Approved Budget for Contract, Program of Works, PERT/CPM conforming to the DPWH format of Detailed Unit Price Analysis (DUPA) for the whole project cost and the cost of phase II of the construction amounting to Twenty seven million six hundred sixty two pesos (P 27,662,000.00)

2. ARCHITECTURAL DESIGN

The existing building drawings and details are subject for review and shall be the general reference in the Structural, Electrical and Sanitary design of the Four Storey Academic Building.

PROJECT COMPONENTS

The design of the Four Storey Academic Building shall conform to the provisions of the National Building Code of the Philippines (PD 1096), 2010 National Structural Code of the Philippines, Electrical Engineering Law (RA 7920), and Plumbing Code (RA 1378, 1993-1994 Revisions), and other laws and regulations covering environmental concerns and local ordinances and regulations.

3.1 Pre-Detailed Engineering Design

3.1.1 Geotechnical Investigation

The Foundation allowable bearing capacity may be referred to the existing data of the KSU Infrastructure unit.

3.1.2 Design Drawings

Upon award of this consultancy work, the design development drawings for the proposed academic building shall be based on the existing architectural design prepared by the KSU Infrastructure unit. The design development drawings for submission as part of the requirement to be submitted by the consultant shall include the following:

- a) Architectural Design Development Plans, signed and sealed by the Architect. Refer to Checklist of Drawings and Document Requirements and Design Performance Parameters and Specifications (Annex B).
- b) Structural Design Development Plans, signed and sealed by the Structural Engineer. Refer to Checklist of Drawings and Document Requirements and Design Performance Parameters and Specifications (Annex B).



- c) Electrical Design Development Plans, signed and sealed by the Professional Electrical Engineer. Refer to Checklist of Drawings and Document Requirements and Design Performance Parameters and Specifications (Annex B).
- d) Storm Drain, Sanitary and Plumbing Design Development Plans, signed and sealed by the Sanitary Engineer/Master Plumber. Refer to Checklist of Drawings and Document Requirements and Design Performance Parameters and Specifications (Annex B).
- e) Mechanical Design Development Plans, signed and sealed by the Professional Mechanical Engineer or the Project Design Coordinator. Refer to Checklist of Drawings and Document Requirements and Design Performance Parameters and Specifications (Annex B).
- f) General Notes and Technical Specifications describing type and quality of materials and equipment to be used, manner of construction and the general conditions under which the project is to be constructed.
- g) Bill of quantities, cost estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals.(Conforming to DPWH mensuration)
- h) Summary of Works

3.2 Detailed Engineering Design

Upon the issuance of the notice to proceed, the detailed design drawings shall be prepared, revised, if needed, and finalized by the winning bidder, taking into account the comments provided by the procuring entity and its authorized representatives.

All detailed design drawings and documents shall be signed and sealed by the concerned design professionals.

- 1.1.1 **A final detailed bill of quantities and cost estimate, program of works and Approved budget for contract shall be prepared for the totality of the whole structure and another set of detailed bill of quantities and cost estimate, program of works and Approved budget for contract for the second phase amounting to Twenty seven million six hundred sixty two pesos (P 27,662,000.00). The above-mentioned documents shall conform according to the DPWH detailed unit price analysis.**

Should there be any revisions approved by the procuring entity, revisions on the contract cost shall be based on the updated unit costs, canvass and rates conforming to DPWH detailed unit price analysis.



3. COMMUNICATIONS

All communications about this project shall be addressed to the President of the Kalinga State University. During the bidding process, copies of the communication should be provided to the BAC Chairperson and the Head of the BAC Secretariat. A copy of technical queries should also be forwarded to the Head of the Infrastructure Department.

3.1	President:	DR. EDUARDO T. BAGTANG
3.2	BAC Chairperson	DR. AMADO P. IMPER Vice President for Admin. and Finance
3.3	BAC Secretariat	RONALDO B. DALUPING BAC Secretariat
3.4	Infrastructure Office	ENGR. RHONJHON R. GARMING Director for Planning and Strategy/ Head of the Infrastructure Unit

4. ELIGIBILITY REQUIREMENTS:

4.1 Specialized

For the Detailed Design, the Bidder is required to design the project with the minimum number of professionals as shown below:

4.1.1 Structural Engineer

- Licensed Civil Engineer specializing in Structural Engineering
- Preferably at least 5 years' experience in buildings or similar projects
- Masters or PhD degree in Civil/Structural Engineering, or recognition as Structural Engineer by the PICE or Association of the Structural Engineers of the Philippines
- Proficient in AutoCad Software

4.1.2 Registered Electrical Engineer

- Licensed Professional Electrical Engineer
- Preferably at least 5 years' experience in buildings or similar projects

4.1.3 Professional Electrical Engineer

- Licensed Professional Electrical Engineer
- Preferably at least 5 years' experience in buildings or similar projects

4.1.4 Sanitary Engineer/Master Plumber

- Licensed Sanitary Engineer or Master Plumber
- Preferably at least 5 years' experience in buildings or similar projects
- Proficient in AutoCad Software

4.1.5 Mechanical Engineer

- Licensed Mechanical Engineer
- Preferably at least 5 years' experience in buildings or similar projects
- Proficient in AutoCad Software



5. APPROVED BUDGET COST (ABC)

The total approved budget cost for the **Consulting Services on Architectural Design Review, Structural Design Review, Plumbing, Sanitary Design, Electrical Design, Fire Detection and Alarm System, Mechanical Design of Elevator and Cost Estimates for Construction of Four Storey Academic Building** is EIGHT HUNDRED EIGHTY EIGH THOUSAND THREE HUNDRED FORTY NINE THOUSAND AND 51/100 PESOS (Php888,349.51).

6. TIME FRAME

The winning consultant is required to complete the design services within 10 CD upon receipt of the Notice of Award.