



**BILL OF QUANTITIES**

<b>REHABILITATION OF ACADEMIC BUILDING AT CvSU CAVITE CITY CAMPUS PHASE - I</b> <b>ABC: ₱ 50,000,000.00</b> <b>COLLEGE/UNIT/CAMPUS: CAVITE CITY CAMPUS</b>					
Item No.	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
I	PRELIMINARY WORKS AND EARTHWORKS (Pesos _____ _____ and _____ centavos)				
II	CONCRETE WORKS (Pesos _____ _____ and _____ centavos)				
III	CARPENTRY WORKS (Pesos _____ _____ and _____ centavos)				
IV	MASONRY WORKS (Pesos _____ _____ and _____ centavos)				
V	ROUGHING-IN WORKS (Pesos _____ _____ and _____ centavos)				
<b>GRAND TOTAL</b>					_____
<b>Write grand total in words</b>					_____ _____ _____

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name of Bidder/Bidder's Representative: \_\_\_\_\_  
 \_\_\_\_\_  
 (Signature over Printed Name)  
 Position: \_\_\_\_\_  
 Construction Company/Contractor: \_\_\_\_\_

## CAVITE STATE UNIVERSITY

### SCOPE OF WORK:

#### A. REHABILITATION OF ACADEMIC BUILDING AT CvSU CAVITE CITY CAMPUS PHASE - I

##### GENERAL NOTES:

1. The project should be finished in 210 calendar days.
2. Actual site inspection is a must. Verify the actual condition of the site, since there is an existing structure.
3. This set of specifications shall govern the methods of construction and the kinds of materials to be used for the proposed project shown in the plans and detailed drawings.
4. All parts of the construction shall be finished with first class workmanship, to the fullest talent and meaning of the plans and these specifications, and to the entire satisfaction of the project inspector and the end-user.

#### B. Technical Description

##### I. Preliminary Works and Earthworks

###### A. Permit Processing, etc.

1. Taxes, fees, etc.
2. Provide certified true copy of clearances and permits.
3. Include application for Certificate of Occupancy.

###### B. Mobilization / Demobilization

Provide the following:

1. Billboard with project information
2. Bunkhouse with temporary office
3. Temporary comfort rooms
4. Site temporary enclosure may be blue sack or any suitable materials that may enclose the workplace.
5. It includes cleaning up of site, clearing, hauling and disposal of waste and construction debris before and after the construction work at least six meters away from the building line. Notify the end-user regarding the properties that need to be hauled away from the site prior to construction. All waste materials shall be disposed of by the contractor at his expense.
6. Any excess materials resulting from all earthwork operations not required or unsuitable for backfill as directed by the project inspector, shall be disposed of by the contractor at his expense.

###### C. Demolition Works

1. This work includes demolition of existing structures including all the steel structures.

###### D. Earthworks

###### a. Staking out the building lines

1. The building lines shall be staked out and all lines and grades shown in the drawing established before any excavation is started. Batter boards and reference marks shall be erected at such places where they will not be disturbed during the excavation of the building.

###### b. Excavation

1. This work includes excavation for all columns, wall footings, elevator and tie beams.

###### c. Backfilling Works

1. Backfill and fills shall be placed in layers not exceeding 150 mm in thickness, and each layer shall be thoroughly compacted by wetting, tamping and rolling.
2. Conduct Field Density Test (FDT) to ensure the compaction of the soil.

###### d. Pile Works

1. Provide concrete piles and sheet piles. See plan for details.
2. Depth of the piles should be 7.50m from NGL.
3. Provide necessary tools and equipment needed for pile works.

##### II. Concrete Works

###### A. Cast-in place concrete

1. This includes concrete works from **footing to third floor only**.
2. Concrete works include columns, footings, stiffener columns, slab, beams, stairs, elevator and all other concrete components needed to complete the structure.
  - Provide lintel beams for the opening of windows and doors. Use 0.15m x 0.20m reinforced with 2-12 mm Ø bars enclosed with 10mm Ø bars.
3. Use ready mix concrete. Strength of concrete to be adopted shall be **3,500 psi at 28 days**.
4. Provide necessary tools and equipment needed for concrete works.

5. Reasonable number of tests on the concrete is required by the implementing agency during the progress of the work. Not less than two (2) cylindrical specimens shall be reserved for the 28th day test. The Contractor shall pay for the cost of material testing.
  6. Compression and slump tests shall be made for every batch of concrete. 1 set of tests shall be made from any one batch of concrete and all 3 tests shall be made from the same batch.
  7. In case of failure of test cylinders to meet the specified strengths, the Contractor shall at his expense obtain concrete core samples from the poured concrete and the compressive strength of same be taken by a competent testing authority to determine the conclusive strength and integrity of the concrete poured.
- B. Steel reinforcement
1. All rebars should be coated with epoxy primer prior to concrete pouring.
  2. Provide 10 mm Ø deformed bars at 0.30m on center both ways for slab on fill at ground floor.
  3. Provide 1.0m vertical reinforcement bars dowels on all columns.
  4. Use deformed bar grade 40.
  5. See plan for the quantity and sizes of steel reinforcement
  6. Provide necessary tools and equipment needed for steel works.
  7. See plan for details and extent of work.
  8. The contractor shall furnish 2 copies of the manufacturer's certificate of mill tests of all reinforcing steel. The contractor shall at his own expense employ an approved testing laboratory which shall conduct testing of all reinforcement sizes of each bulk under the supervision of the project inspector.

### III. Carpentry Works

1. Provide necessary form lumber and scaffolding needed for the completion of the project

### IV. Masonry Works

#### A. CHB laying

1. This work includes installation of CHB from tie to ground floor level only.
2. Installation of CHB reinforced with 10 mm Ø deformed bar spaced at 0.60 m. on center every three layers.
  - a. CHB 6" for the perimeter/exterior walls at ground floor.

### V. Roughing-In Works

#### A. Electrical Works:

1. Supply and installation of PVC orange conduit pipes, PVC utility/junction and pull boxes deep type with cover.

Note: Supply and installation of conductor wires, panel boards, circuit breakers, lighting fixtures and outlets are not included in the scope of work.

#### B. Fire Detection Alarm System:

1. Supply and installation of PVC orange conduit pipes, PVC utility/junction and pull boxes deep type with cover for the Fire Detection Alarm System.

Note: Supply and installation of conductor wires, FACP, fire alarm bell and smoke detector units are not included in the scope of work

#### C. Plumbing Works

1. This work includes the preparation and installation of the preliminary plumbing infrastructure (roughing-in) for all embedded components.

C. Contractor of the said project must provide an as-built plan of the project at the end of the contract as a requirement for the release of their final billing.

D. For color/types of any fixtures or materials to be used on site, consult the end-user and the inspector for approval. Consult the plan and the scope of work for the extent of tasks of the contract. If possible, let the end-user sign your sample as proof of approval.

E. The plans, detailed drawings and these specifications shall be considered as complementing each other, so that what is mentioned or shown in one, although not mentioned or shown in the other, shall be considered as appearing on both. **In case of conflict between the two, generally, the scope of work prevails.**

F. Resident site engineer is a must for the projects to be undertaken by the contractor of the university. In cases where there are electrical works, it is required that an electrical engineer or a master electrician be a part of the contractor's team to supervise all electrical works. Likewise, master plumbers must supervise plumbing works. It can be considered when only one person is the master plumber and master electrician at the same time as long as his major duty is supervision of both fields. Safety engineer is a must as per DOLE requirement. **Note: All key**

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**personnel should be included in the list of personnel for submission.**

- G.** In cases of participation in two or more projects, the set of workers and foreman shall be different per project, however, the set of engineers and equipment may be reused.
- H.** Construction safety and health program as well as construction schedule (PERT/CPM/S-Curve) shall be provided by the winning bidder.
- I.** All public utilities used by the winning contractor in the construction of the project, such as electricity, water, telephone, etc., shall be for the sole account of the contractor.
- J.** See plans/consult the end-user and project inspector for details and extent of work. The silence of specifications, plans, special provisions and supplementary specifications as to any detail, or the apparent omission therein of detailed description or definition of the quality of materials and workmanship shall be regarded to mean that only materials and workmanship of first class quality are to be used or employed.