Republic of the Philippines
CAVITE STATE UNIVERSITY
Don Severino delas Alas Campus
Indang, Cavite

BILL OF QUANTITIES

RENOVATION OF BOYS DORMITORY
ABC: ₱ 14,948,672.74 **Bill of Quantities**
COLLEGE/UNIT/CAMPUS: MAIN CAMPUS

Item No.	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
I	EARTHWORKS (Pesos _____ _____ _____ and _____ centavos)				
II	CONCRETE WORKS (Pesos _____ _____ _____ and _____ centavos)				
III	MASONRY/ TILE WORKS (Pesos _____ _____ _____ and _____ centavos)				
IV	CARPENTRY WORKS (Pesos _____ _____ _____ and _____ centavos)				
V	TRUSSES AND ROOFING (Pesos _____ _____ _____ and _____ centavos)				
VI	MISCELLANEOUS WORKS (Pesos _____ _____ _____ and _____ centavos)				
VII	ELECTRICAL WORKS (Pesos _____ _____ _____ and _____ centavos)				
VIII	PLUMBING WORKS (Pesos _____ _____ _____ and _____ centavos)				

IX	PAINTING WORKS (Pesos _____ _____ _____ and _____ centavos)				
	GRAND TOTAL				_____
	Write grand total in words	_____ _____ _____			

Submitted by: Date: _____
Name of Bidder/Bidder's Representative: _____
Position: _____
Construction Company/Contractor: _____

SCOPE OF WORK:

A. RENOVATION OF BOYS DORMITORY

GENERAL NOTES:

1. The project should be finished in 240 calendar days.
2. There is an existing structure. Site inspection is a must to verify site condition.
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. Earthworks

A. This work includes the following:
   a. Site preparation
   b. Site temporary enclosure may be blue sack or any suitable materials that may enclose the workplace.
   c. Mobilization and Demobilization
   d. Billboard
   e. Office/Bunk house, etc.

B. Demolition works
   a. This work includes dismantling of existing footings and columns (Refer to A – 0 sheet for the details and extent of demolition works)
   b. All dismantled materials should be transported to PPS yard.

C. Excavation/ Backfilling Works
   a. This work includes excavation for all new foundation, columns, wall footings, tie beams, catch basins and septic tank.
   b. This work also involves backfilling of the excavated soil once the concrete has been poured for the columns, tie beams and footings

D. Clearing
   a. The area should be cleared/cleaned before and after construction work at least ten meters away from the building line. Notify the end-user regarding the properties that needed to be hauled away from the site prior to construction.

E. Additional fill and Soil Poisoning
   a. Provide additional fill.
   b. Gravel fill should be 0.05m thick.
   c. The whole area should be treated with termite proofing. Termite proofing should be administered by accredited termite treatment specialist.

II. Concrete Works

A. Cast-in-place concrete
   1. Concrete works include footings, tie beams, columns, slabs, roof beams, counters, gutter and all other concrete components needed to complete the structure.
   2. Extension of existing concrete columns is included. Refer to plan for the extent of extension.
   3. Strength of concrete to be adopted shall be 3,500 psi.
   4. Concrete works should be plain cement finish.
   5. Provide necessary tools and equipment needed for concrete works.

B. Steel reinforcement
   1. Use deformed bar grade 40.
   2. Provide necessary tools and equipment needed for steel works.

III. Masonry and Tile Works

A. CHB Laying
   1. Installation of CHB reinforced with 10mm Ø deformed bar spaced at 0.60 m. on center every three layers.

a. CHB 5” for the perimeter/ exterior walls and septic tank
b. CHB 4” for interior/ partition walls.

2. Repair and extension of existing interior/ partition walls is included.
3. Masonry works should be plastered plain cement.

B. Tile Works

Supply and installation of the following:

1. Use ceramic tiles (locally made) 0.40m. x 0.40m. for the whole floor area of the building. Tiles must be accented with dark colors.
2. Use unglazed ceramic tiles (locally made) for hallway and ramp. Tiles must be accented with dark color.
3. Use decco stone for front wall at Grid A to B and M to N (refer to sheet A – 2) and for plant boxes.
4. Use ceramic colored tiles (locally made) 0.60m. x 0.60m. for comfort rooms and concrete counters for the floor and walls. Tiles must be installed for the entire floors and walls. Accent using decorative tiles shall be provided.
5. Tiles must be installed using tile adhesive and finish with appropriate tile grout.
6. Consult the end-user for color preference of tiles.

IV. Carpentry Works

1. This work includes the supply and installation of all necessary ceiling materials and components.
2. Provide necessary form lumber scaffolding for the completion of the project.
3. Provide ceiling components for the entire building.
   a) Use fiber cement board 3/16” thick for ceiling board.
   b) Use metal furring as ceiling joist/ runner.
   c) Provide decorative wooden molding to all ceiling perimeter and corner.
   d) Provide 3/16” x 1” flat bar coated with primer and paint for ceiling hanger every 1.20m. both ways.

V. Trusses and Roofing Works

A. Trusses

1. See plans for sizes of bar and other details for the installation of steel trusses.
2. This work also includes painting of two (2) coats of epoxy primer and two (2) coats of quick dry enamel black.
3. Provide necessary tools and equipment.
4. All joint connections should be fully welded.
5. Use galvanized CEE purlins gauge 16, 2" x 6" @ 0.60 m. on center.
6. Provide 16 mm. Ø plain bar with standard turnbuckle for horizontal cross bracing
7. Provide 4-16 mm. Ø anchor bolts with nut and washer for each support.
8. Provide 12 mm. Ø with nut and washer for sag rod.

B. Roofing Works

1. Adopt gauge 26 (0.5 mm.) rib type pre-painted roof sheet.
2. Adopt gauge 26 x 18 (0.5 mm.) pre-fabricated and pre-painted ridge roll.
3. Provide plastic screen for roofing eaves.
4. All attachments for roofing sheet and ridge roll shall be 2 1/2" tek screw for metal.
5. Provide water sealant for all attachment (water sealant should be provided for both inside and outside surface of tek screw head).

C. Include water proofing of concrete gutter. Use integral waterproof TCN Cysta Integra (or equal) with application rate of minimum 8 gallons for every 1 cubic meter of fresh concrete. Use also, bentonite water stops with minimum size 25mm x 40mm x 5m per roll.

VI. Miscellaneous Works

Supply and installation of the following:

A. Doors

2.0 sets D-1 Aluminum swing type door complete with all accessories, with 1/4" thick tempered colored glass on colored powder coated finish aluminum framing.

2.0 sets D-2 Aluminum swing type door complete with all accessories, with 1/4" thick tempered colored glass on colored powder coated finish aluminum framing.

12.0 sets D-3 (0.90 m. x 2.10 m.) Pre painted steel flush door complete with all accessories.

15.0 sets D-4 (0.80 m. x 2.10 m.) Pre painted steel flush door complete with all accessories.
25.0 sets D-5 (0.70 m. x 2.10 m.) Stainless flush door; 1" x 2" stainless tubular framing with gauge 18 stainless sheet (double wall) complete with all accessories.

B. Windows

10.0 sets W-1 Aluminum casement window complete with all accessories, with 1/4" thick colored glass on colored powder coated finish aluminum framing.
12.0 sets W-2 Aluminum casement window complete with all accessories, with 1/4" thick colored glass on colored powder coated finish aluminum framing.
25.0 sets W-3 Aluminum sliding window complete with all accessories, with 1/4" thick colored glass on colored powder coated finish aluminum framing.
24.0 sets W-4 Aluminum sliding window complete with all accessories, with 1/4" thick colored glass on colored powder coated finish aluminum framing.
13.0 sets W-5 Aluminum awning window complete with all accessories, with 1/4" thick colored glass on colored powder coated finish aluminum framing.

VII. Electrical Works

1. This work includes the furnishing of materials, labor, tools and equipment and all necessary services to complete and make ready for operation the electrical power and lighting system of the project.
2. This work also includes the dismatling of all existing electrical devices.
3. Supply and installation of panel boards and circuit breakers in accordance with the plan including the tapping/connection to the source.
   NOTE: Bolt-on type, NEMA Standard should be used.
4. Concrete wall chipping for conduit pipe raceways. Including repair and re-painting.
5. Supply and installation of conductors and PVC conduit/junction box/utility box from main panel to convenience outlet/light outlet.
   a. PVC orange conduit pipe for all embeded electrical raceway.
   b. RSC or IMC pipe for service entrance and all exposed electrical raceway.
   c. THHN/THW copper conductor wire. Phelp dodge or approved equal. Refer to Schedule of loads for wire size and proper color coding of wires.
   d. Utility and junction boxes should be PVC and deep type.
   e. Support brackets/hangers, clamps and rods should be galvanized steel.
6. Supply and Installation of electrical fixtures/switches/outlets and other electrical devices
   a. Switches (Bticino, National or its equivalent)
   b. Two-gang convenience outlets with ground (Bticino, National or its equivalent)
   c. Weather-proof two-gang convenience outlets with ground.
   d. MCCB with nema 3r metal enclosure for split type ACU.
   e. 36W (4') LED panel lighting
   f. 7W LED bulb
   g. 5W LED bulb
   h. Pin light LED 11W
   i. Emergency lights
   j. CT rated three phase kWh meter.
7. Construction of service entrance post.
8. Supply and Installation of secodanry steel post and accessories (2 sets).
9. Electrical wiring and layout is to be connected from MDP to existing Distribution Transformer. Provide the necessary connectors, wiring accessories, messenger wires & equipment for the wiring installation.
10. Include tapping to the distribution transformer, testing and commissioning.

NOTE: Electrical testing and guarantee, electrical supervision and final electrical inspection report should be signed and sealed by Professional Electrical Engineer with notary public.

VIII. Plumbing Works

A. Water Supply Line (Removal and replacement of all water supply lines)
   a. Adopt PPR pipes and fittings for water line.
      1. 1" Ø for main line and 1/2" Ø for interior line
      2. Provide gate valve and water meter for every unit.
   b. Tapping to the source is included.
   c. No pipe should be embedded without testing it to leak.

B. Sewer Line (Removal and replacement of all sewer lines)
    a. Adopt PVC heavy duty orange pipes and fittings.
        1. Use 4" Ø for downspout and sewer lines.
        2. Use 2" Ø for kitchen sink, floor drain, lavatory and ventilation.
    b. Provide storm drainage, catch basins and septic tanks. (see plan for sizes)

C. Fixtures
Supply and installation of the following (Note: All fixtures must be **HCG, American Std, Toto** or approved equivalent):
    a. Colored tank type water closet (13 sets)
    b. Stainless kitchen sink deep type with heavy duty faucet (12 sets)
    c. Colored wall hung lavatory (1 set)
    d. Heavy duty shower head & valve with faucet (13 sets)
    e. Heavy duty hand held spray set with faucet for every comfort room (13 sets)
    f. Brass floor drain (26 units)
    g. Stainless roof drain strainer (28 units)

IX. Painting Works

The whole building should be painted (both exterior & interior) including window grills.

A. Wood/Metal
    a. Apply epoxy primer by brush or spray. Allow to dry for 24 hours. Apply suitable putty on imperfections, then, sand.
    b. Apply at least two coats of Quick Dry Enamel in the desired color.

B. Concrete
    a. Treat the surface with concrete neutralizer. Mix one part with 16 parts water by volume.
    b. Apply Latex flat as primer. All concrete surface must be applied with skim coat. Repair minor surface imperfections with a suitable putty. Let dry, then sand.
    c. Apply at least two coats of colored dirt resisting semi gloss latex paint (factory mixed).
    Note: Color of paint will depend upon the preference of the end-user. Paints and its accessories should be BOYSEN or approved equal.

D. Building permits, necessary clearances and other government taxes should be shouldered and settled by contractor.

E. 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.

F. 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.

G. 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.**

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

I. 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**.**

J. Construction safety and health program as well as construction schedule (PERT/CPM/S-Curve) shall be provided by the winning bidder.

K. 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.