



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

BILL OF QUANTITIES

REHABILITATION OF HOSTEL TROPICANA		Bill of Quantities			
ABC: ₱ 14,570,682.68					
COLLEGE/UNIT/CAMPUS: MAIN CAMPUS					
Item No.	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
I	MOBILIZATION (Pesos _____ _____ and _____ centavos)				
II	CHIPPING WORKS (Pesos _____ _____ and _____ centavos)				
III	CARPENTRY WORKS (Pesos _____ _____ and _____ centavos)				
IV	TILE WORKS (Pesos _____ _____ and _____ centavos)				
V	MISCELLANEOUS WORKS (Pesos _____ _____ and _____ centavos)				
VI	ROOFING WORKS (Pesos _____ _____ and _____ centavos)				
VII	ELECTRICAL WORKS (Pesos _____ _____ and _____ centavos)				
VIII.	FIRE PROTECTION WORKS (Pesos _____ _____ and _____ centavos)				

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

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

CAVITE STATE UNIVERSITY

SCOPE OF WORK:

A. REHABILITATION OF HOSTEL TROPICANA

GENERAL NOTES:

1. The project should be finished for 210 calendar days.
2. Actual site inspection is a must.
3. Building permits, necessary clearances and other government taxes should be shouldered and settled by contractor.
4. 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.
5. 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, the same should be referred to the project inspector for resolution.
6. 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. Mobilization

1. 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. Billboard
 - d. Office/Bunk house
 - e. Temporary comfort rooms
2. 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 need to be hauled away from the site prior to construction.
3. All materials removed from the building site shall be surrendered to the vicinity of Physical Plant Services, unless directed by the project inspector to be disposed of elsewhere.

II. Dismantling Works

1. This work includes dismantling of existing doors and window components, removal and dismantling of existing ceiling components, removal and dismantling of existing roofing components and chipping and removal of all existing ceramic tiles.
2. Consult the project inspector for the other scope and technical details of the project.

III. Carpentry Works

1. This work includes the supply and installation of all necessary ceiling materials and components.
2. This work also includes the supply and installation of WPC Wall Cladding in the lobby, front desk/ information area and staircase landing (see perspective plans for reference)
3. Provide necessary scaffolding for the completion of the project.
4. Provide ceiling components for the entire building.
 - a) Use 4.5mm thick fiber cement board for interior ceiling.
 - b) Use pre-painted spandrel for exterior ceiling boards.
 - c) Use metal furring as ceiling runner and ceiling joist at 0.40m on center both ways.
 - d) Provide decorative wooden molding (ceiling cornice) to all interior ceiling perimeter and corners.

- e) Consult the project inspector for the other scope and technical details of the project.

IV. Tile Works

1. This work includes the supply and installation of floor tiles for the whole building.
2. Supply and installation of the following:
 - a. Non-skid granite tiles (locally made) 0.60m x 0.60m for the entire floor excluding the comfort rooms.
3. All tiles for floor, walls and moldings shall be free from laminations, serrated edges, chipped-off corners, and other defects, which would adversely affect the appearance and strength. Use tile adhesive for the installation of all tiles. All joints between tiles and moldings shall be filled with white cement or tile grout and then carefully wiped.
4. Consult the end user for the color preference of the tiles.

V. Miscellaneous Works

1. This work includes the furnishing of materials, equipment and labor required for the completion/ installation of doors and windows as shown in the drawing. See architectural drawings for details, locations, and other requirements.
2. Supply and installation of the following:
 - a. **1.0 set** of D-1 0.90m. x 2.15m. flush door complete w/ heavy duty accessories w/ 3/8" thick colored glass on a color powder coated finish aluminum framing.
 - b. **6.0 sets** of D-2 0.80m x 2.10m. solid steel door complete w/ heavy duty accessories.
 - c. **12.0 sets** of D-3 1.60m. x 2.10m. double swing glass door complete w/ heavy duty accessories w/ 3/8" thick colored glass on a color powder coated finish aluminum framing.
 - d. **2.0 sets** D-4 3.25m. x 2.50m. double swing glass door w/ fixed glass complete w/ heavy duty accessories w/ 3/8" thick colored glass on a color powder coated finish aluminum framing.
 - e. **34.0 sets** of D-5 0.70m. x 2.10m. solid steel flush door complete w/ heavy duty accessories.
 - f. **17.0 sets** W-1 Sliding window w/ complete accessories and 3/8" thick colored glass on powder coated finish aluminum framing.
 - g. **19.0 sets** W-2 Sliding window w/ complete accessories and 3/8" thick colored glass on powder coated finish aluminum framing.
 - h. **2.0 sets** of W-3 Sliding window w/ complete accessories and 3/8" thick colored glass on powder coated finish aluminum framing.
 - i. **8.0 sets** of W-4 Sliding window w/ complete accessories and 3/8" thick colored glass on powder coated finish aluminum framing.
 - j. **9.0 sets** of W-5 Sliding window w/ complete accessories and 3/8" thick colored glass on powder coated finish aluminum framing.
 - k. **14.0 sets** of W-6 Sliding window w/ complete accessories and 3/8" thick colored glass on powder coated finish aluminum framing.
 - l. **2.0 sets** of W-7 Sliding window w/ complete accessories and 3/8" thick colored glass on powder coated finish aluminum framing.
 - m. **10.0 sets** of W-8 Sliding window w/ complete accessories and 3/8" thick colored glass on powder coated finish aluminum framing.
3. After installing the doors and windows, repair and retouch all damaged window and door openings. This includes repainting any damaged areas and retouching chipped areas.
4. Safety precaution and procedure shall be observed in determining the sizes and in providing the required clearances by measuring the actual opening to receive the glass.
5. Doors, windows, door frames and window frames shall conform to the sizes, designs and kind of materials shown in the detail or schedule of doors and windows.
6. Consult the end user for the color preference for the doors and windows.
7. Consult the project inspector for the other scope and technical details of the project.

VI. Roofing Works

1. This work includes the supply and installation of all necessary roofing materials and

- components.
2. Provide necessary scaffolding for the completion of the project.
 3. Roofing sheet shall be laid over the purlins. Fasteners shall be teck screw. Fasteners shall be applied only through supporting purlins in a manner that roofing sheet nail be driven about the centerline of the purlins. Care shall be observed not to drive too hard on the head of the teckscrew.
 4. Before installing the roofing components, ensure that all dilapidated and damaged roof framing components, such as trusses (top chord, bottom chord, and web members) and purlins, are repaired and restored.
 5. For roofing works:
 - a) Adopt gauge 26 (0.5mm) rib-type and pre-painted roofing sheet.
 - b) Adopt gauge 26 (0.5mm) prefabricated and pre-painted flashing.
 - c) Adopt gauge 26 (0.5mm) stainless gutter.
 - d) All attachment for roofing sheet shall be 2 1/2" tekscrew.
 - e) Apply water sealant for all roofing attachments (water sealant should be applied for both inside and outside surface of the tekscrew head).

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 dismantling 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 of walls.
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. Phelps 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) Two-gang GFCI type outlet for waterheater (31 sets).
 - d) 36W (4') LED panel lighting (77 sets).
 - e) 18W (2') LED panel lighting (103 sets).
 - f) 9W LED round panel lighting (115 sets).
 - g) Chandelier type lighting (1 set).
 - h) Emergency light twin head (54 sets).
 - i) Exit sign light (6 sets).
 - j) One-gang convenience outlets with ground for window type ACU.
 - k) MCCB with nema 3r metal enclosure for split type ACU. Refer to schedule of loads for the rating of circuit breakers.
 - l) CT rated three phase kWh meter.
7. 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.
8. The installation shall conform to good engineering practice and in particular comply with the requirements laid down in the following documents which are mandatory and modified only by specific agreement:
 - a) PEC - Philippine Electrical Code
 - b) MERALCO - Manila Electric Company
 - c) All applicable codes and ordinance of the municipality and laws of the

Republic of the Philippines.

9. The contractor shall furnish and install as indicated in the plan necessary panel boards of multibreaker type as shown under schedule of load. Circuit breaker shall be of magnetic thermal type, bolt-on, with the rating and number of poles as indicated in the load schedule. It shall be installed in a perfectly fit cabinet of appropriate size.
10. Unless otherwise indicated or specified, conductors shall be THHN copper type, stranded. Connections shall be made except in boxes provided for the purpose. Conductors spliced shall be without solder.
11. All boxes shall be deep type metal, coated with primer and paint or PVC. All junction boxes shall be fitted with a standard cover. They shall be of sizes sufficient to accommodate the number of conductors entering the box. All switches unless specified shall be flush type and rated not less than 15A, 250 V.
12. The contractor shall furnish all lighting fixtures schedule indicated in the drawing, the exact location and heights of fixture shall be governed by the structural limitation of the building.
13. Any apparent conflict between the drawings and specifications and any controversial or unclear points shall be referred to the electrical inspector for final decision. He shall have the power to reject any work or materials which in his judgment are not in full accordance with the specification.
14. The contractor shall furnish, install, and connect ground rods and all other materials required to provide a permanent and effective grounding system for the project. Exposed non-current carrying parts of all electrical equipment regardless of voltage shall be grounded.
15. When the electrical installation is completed, the contractor in the presence of the electrical inspector shall conduct testing and commissioning which includes circuit insulation and switching operation test, that are required to freely and completely demonstrate that the electrical system has been installed and will operate in accordance with all applicable specification and codes, free from grounds, shorts, or defects. All necessary instruments and personnel required for the testing shall be furnished by the contractor at no extra cost to the end user.
16. 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. Fire Protection Works

1. This work includes the fabrication, complete in all details, of fire protection works at the subject premises, the installation, except those portions shall be in accordance with governing Codes and Regulations and with the specifications, except where the same shall conflict with the codes, etc. which, later shall be govern. The requirements about materials and workmanship specify the required standards for the furnishing of all labor, materials, and appliances necessary for the complete installation of the work specified herein and indicated on the drawings.
2. Supply and installation of the following
 - a) **2 units** firehose with cabinet
 - b) **22 units** stored pressure type HCFC 123 CEA fire extinguisher. Amerex B402 or approved equal.
 - c) **4 units** fire alarm bell with control. Honeywell/Edwards or approved equal.
 - d) **1 unit** fire alarm control panel. Honeywell/Edwards or approved equal.
 - e) **62 units** smoke detector. Honeywell/Edwards or approved equal.
 - f) **1 unit** heat detector
 - g) Dry stand pipe 3" Ø with siamese fitting

IX. Plumbing Works

1. This work includes the de-clogging of all storm drainage from roofing to the catch basin.
2. See plans for details on the ground floor sewer layout. Installation of reinforced concrete pipe for sewer and drainage line is included.
3. This work also includes the construction of **44 sets** of catch basin. See plans for

details.

4. It is not intended that the drawings shall show every pipe, fitting, and valve. However, all such items whether specifically mentioned or indicated in the drawings, shall be furnished, and installed if necessary to complete the system in accordance with the best of trade and to the satisfaction of the project inspector.
 5. Concrete pipe joints for all storm drainage pipe shall be firmly packed with mortar mixture of cement and sand at all inside and outside rim of hub and joint.
 6. Do not cover or enclose work until it has been properly and completely inspected and approved. Should any work be covered up or enclosed prior to all required inspections and approvals, uncover the work as required. After it has been completely inspected and approved, make all repairs and replacements with such materials as necessary to the approval of the project inspector.
- C.** 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.**
- D.** 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.
- E.** Construction safety and health program as well as construction schedule (PERT/CPM/S-Curve) shall be provided by the winning bidder.
- F.** 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.