



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

**BILL OF QUANTITIES**

COMPLETION OF ADMINISTRATION BUILDING AT CARMONA CAMPUS					
ABC: ₱ 7,464,665.58			Bill of Quantities		
COLLEGE/UNIT/CAMPUS: CvSU CARMONA CAMPUS					
Item No.	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
I	<b>EARTHWORKS</b> (Pesos _____ _____ and _____ centavos)				
II	<b>CONCRETE WORKS</b> (Pesos _____ _____ and _____ centavos)				
III	<b>MASONRY WORKS</b> (Pesos _____ _____ and _____ centavos)				
IV.	<b>CARPENTRY WORKS</b> (Pesos _____ _____ and _____ centavos)				
V.	<b>MISCELLANEOUS WORKS</b> (Pesos _____ _____ and _____ centavos)				
VI.	<b>PLUMBING WORKS</b> (Pesos _____ _____ and _____ centavos)				
VII.	<b>ELECTRICAL WORKS</b> (Pesos _____ _____ and _____ centavos)				

VIII.	<b>PAINTING WORKS</b> (Pesos _____ _____ and _____ centavos)				
<b>GRAND TOTAL</b> _____					
<b>Write grand total in words</b> _____ _____ _____					

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

## CAVITE STATE UNIVERSITY

### SCOPE OF WORK:

#### A. COMPLETION OF ADMINISTRATION BUILDING AT CARMONA CAMPUS

##### GENERAL NOTES:

1. The project should be finished in 180 calendar days.
2. Actual site inspection is a must. There is an existing structure on site.
3. The area should be cleared/cleaned before and after the construction work at least ten meters away from the building line. Unusable used formworks, excessive soil fill, and all other unwanted debris of construction works should be disposed properly.

#### B. Technical Description

##### I. Earthworks

###### A. Mobilization/Demobilization

Provide the following:

- Billboard
- Bankhouse with office
- Temporary comfort rooms
- Site temporary enclosure may be blue sack or any suitable materials that may enclose the workplace.

###### B. Excavation/ Backfilling/ Clearing

1. This work includes excavation for footings, footing tie beams, wall footing, storm drainage, catch basin and septic tank.
2. See plan for details.

###### C. Additional fill and soil poisoning

1. Provide additional fill at ground floor.
2. Provide 0.05m. thick gravel fill on slab on fill, footings, catch basin and septic tank.
3. The entire area for the proposed building should be treated with termite proofing. Use water base termite proofing.

##### II. Concrete Works

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

1. This work includes concrete works within the specified grid such as wall footings and slab.
2. Provide concrete path with 4" CHB zocalo around the perimeter of the building.  
Width: 1.0m; Thickness: 0.10m
3. Strength of concrete to be adopted shall be **3,000 psi** at 28 days.
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.
3. See plan for details and extent of work.

##### III. Masonry Works

###### A. Masonry Works

1. All concrete and masonry works should be plastered plain cement.

###### B. Tile Works

Supply and installation of the following:

1. Ceramic colored tiles (locally made) 0.40m X 0.40m for the whole area of ground floor and second floor of the building. Tile must be accented with dark colors.
2. Granite tiles for comfort rooms.
  - Non-skid granite tiles 24" X 24" for the entire floors
  - Non-skid granite tiles 12" x 24" for the entire walls from floor to ceiling
3. Granite slab for counter at Window 9 and Window 10 and counter at comfort rooms.
4. Granite tiles with groove for the stairs.
5. Non-skid granite tiles 0.30m X 0.30m for entrance and terrace.
6. White pebbles #5 for ramp.
7. Consult the end user for color preference of tiles.

##### IV. Carpentry Works

1. Provide necessary form lumber and scaffolding for the completion of the project.
2. Provide ceiling works for the second floor and eaves.
  - a. Use 3/16" cement board for ceiling board.
  - b. Use lightweight steel frames as ceiling runners and joists.
  - c. Use 8mm deformed bar coated with primer and paint for ceiling hanger.
  - d. Provide 3" corneza for ceiling corners (interior).
  - e. Use pre-painted spandrel 4" for the whole area of eaves.
  - f. Provide ceiling ventilation for every 1 meter and all corners of eaves.

##### V. Miscellaneous Works

1. Supply and installation of doors needed to complete the project. (See plan)

- a. 15 units of PVC partition wall with CR door complete with all accessories including door lock with indicator
2. Supply and installation of all windows needed to complete the project (see plan).
  - a. Provide 12mm square bar grills for all windows except Window - 3
3. Supply and installation of 4 units aluminum fixed counter windows (see plan)
4. Stainless railing/grills for stairs and ramp.
  - a. Provide 1.5mm thick stainless tubing for railings. Use 2" and 1 ½" and 1" tubing.
5. Trellis (Terrace)
  - a. Provide 2.0mm thick tubular. Use 2" X 6" and 2" X 4" tubular bars.
6. Glass railing (Terrace)
  - a. Provide 10.0mm thick tempered glass with stainless framing.
7. Adopt gauge 26 (0.6 mm.) prefabricated and pre-painted end flushing and fascia board.
8. Use stainless gutter. Consult the end-user and project inspector for the gutter design.

## VI. Plumbing Works

- A. Storm Drainage
  1. Construction of catch basins and septic tanks.
  2. Use 6" Ø and 8" Ø for storm drainage.
  3. See plans for details and extent of works.
- B. Water Supply Line
  1. Adopt PPR pipes and fittings (½") for water lines.
  2. Tapping to the source is included.
  3. All pipes should be tested for leak before embedding it to concrete.
  4. Provide one unit gate valve for every comfort room.
- C. Sewer Line
  1. Adopt PVC heavy duty orange pipes and fittings (Sanimold type with O-ring or its equivalent) for ventilation and the whole sewer line system including the septic tank.
    - Use 4" Ø for water closet.
    - Use 3" Ø for all floor drains, downspout and ventilation.
    - Use 2" Ø for lavatory.

**Note 1:** P-traps for floor drain should be located outside the building (not embedded to the concrete).

**Note 2:** Maintain a 2% slope on all CR flooring towards the drain.
- D. Fixtures (For comfort rooms. All fixtures must be TOTO/HCG/ American Std or any approved equal complete with heavy duty fittings and accessories).
  1. Provide brass floor drains for every cubicle. See plan.
  2. Adopt colored tank type water closet.
  3. Adopt colored under-the-counter lavatory.
  4. Provide 18 pcs brass roof drains.
  5. Adopt granite slab for counter lavatory.
  6. Provide a heavy duty faucet for every cubicle.

## VII. Electrical Works

**NOTE: There will be a revised electrical plan (schedule of loads and single line diagram, E-5 and E-6) due to the conversion of single phase circuit breakers and panel boards to Three phase.**

- A. Supply and installation of the following:
  1. All panel boards and circuit breakers needed to complete the project. See schedule of loads and electrical plans for details and specifications. Bolt-on type NEMA standard should be used. (3-Phase)
  2. Feeder line 3-80 sq. mm. with 1-38 sq. mm. ground THHN CU. stranded wires in 63mm. Ø IMC with concrete topping.
  3. Conductors and PVC conduits/ junction box/ utility box from main panel to sub panels/ outlets.
    - PVC conduit orange pipe and RSC/IMC Metal conduit.
    - Utility and junction boxes should be PVC and deep type.
    - THHN and THW CU. stranded wire, Phelps Dodge or approved equal.

NOTE: Refer to the Schedule of loads for size and color coding of conductor wires. THW type of conductor wires for outdoor installation.
  4. Electrical fixtures/ switches/ outlets and other electrical devices
    - Switches and outlets (Bticino, National or approved equal)
    - 24 sets of LED Pin lights 9W
    - 60 sets of LED Fluorescent lamp 4', 1-20W with aluminum louver with diffuser
    - 3 sets of LED Fluorescent lamp 2', 1-9W with aluminum louver with diffuser
    - 21 units of Emergency light
    - 5 sets of ceiling fan (24")
    - 17 units of 1.5 HP window type ACU
    - 2 sets Fire alarm complete with bell, switch and control panel including

- all accessories
- 1 set of Three phase KWH electric meter (CT Rated) with meter base and accessories

5. Installation of concrete pedestal, conduit pipes, conductor wires, support brackets and accessories for Electrical Service Entrance.
6. Tapping to the source.

- B. Other matters concerning electrical works
  1. All emergency light outlets should be installed to lighting circuit outlet.
  2. All fire alarms should be connected to Fire Alarm Control Panel (FACP)
  3. Testing and commissioning of electrical system
  4. Provide secondary post.

### VIII. Painting Works

A. This includes painting of the whole building.

B. Wood

- a. Apply one coat of flatwall enamel white. Allow to dry overnight.
- b. Repair minor surface imperfections with glazing putty. Let dry for 3-4 hours then sand.
- c. Apply two coats of semi-gloss enamel in the desired color. Allow an overnight interval.

C. Metal

- a. Apply zinc chromate primer by brush or spray. Allow to dry for 24 hours. Apply a suitable putty on imperfections. Sand to smooth finish.
- b. Apply two coats of Quick Dry Enamel in the desired color.

D. Concrete

- a. Treat the surface with concrete neutralizer. Mix one part with 16 parts water by volume.
- b. Repair minor surface imperfections with a suitable putty. Let dry, then sand. Spot coat with top coat color.
- c. Apply two coats of colored elastomeric paint or factory mixed dirt resistant semi-gloss latex. Apply with brush or roller.

**Note:** Color of paint will depend upon the preference of the end-user. Paints and its accessories to be used shall be Boysen brand or approved equal.

- 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. **Note: In the event that discrepancies on plans and scope of work occur, generally, the scope of work prevails.**
- E. 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.**
- F. 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.
- G. Construction safety and health program as well as construction schedule (PERT/CPM/S-Curve) shall be provided by the winning bidder.
- H. 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.