

Republic of the Philippines

## **CAVITE STATE UNIVERSITY**

**Don Severino delas Alas Campus** Indang, Cavite

# **BILL OF QUANTITIES**

NA	ME OF PROJECT: CONSTRUCTION OF	F COVERED	COURT WITH	H STAGE	
AB	C: PhP 8,531,184.48				
	LLEGE/UNIT/CAMPUS: Imus Campus				
		Bill of Quantities			
Iten No.		Unit	Quantity	Unit Price ( Pesos )	Amount ( Pesos )
	COVERED COURT				
1.	EARTHWORKS (Pesos and centavos)				
	CONCRETE & MASONRY WORKS				
11.	(Pesos centavos )				
	andcentavos)				
III.	TRUSSES & ROOFING WORKS (Pesos				
	and centavos)				
IV.	CARPENTRY WORKS (Pesos				
	and centavos )				
	PLUMBING WORKS (Pesos				
	andcentavos)				
VI.	ELECTRICAL WORKS (Pesos	-			
	and centavos)				
	STAGE				
1.	EARTHWORKS (Pesos				
	and centavos)			Was Company	
II.	CONCRETE WORKS (Pesos				
	and centavos)		The state of the s		
III.	MASONRY & TILE WORKS (Pesos				
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	MISCELLANEOUS WORK (Pesos				
V.	CARPENTRY WORKS (Pesos				
	and centavos )				

VI.	TRUSSES & ROOFING WORKS		
	(Pesos		
	andcentavos)		
VII.	PLUMBING WORKS		
	(Pesos		
	and centavos) ELECTRICAL WORKS		
VIII.	ELECTRICAL WORKS		
	(Pesos		
	andcentavos)		
IX.	PAINTING WORKS		
	(Pesos		
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Subm	nitted by:	Date :	
Name	of Bidder /Bidder's Representative		
Positi	on .		
Cons	ruction Company / Contractor:		

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## Scope of Work:

### A. COVERED COURT

- 1. Site inspection is a must.
- 2. The project should be finished for 90 calendar days.

### **Technical Description**

- I. Earthworks (Chipping/excavation/backfilling/clearing)
  - 1. This work includes chipping and dismantling of building.
  - 2. Excavation for all footings, catch basin and drainage.
  - The area should be cleared 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 work should be disposed properly.
  - 4. Gravel fill = 0.05 m. thick

## II. Concrete and Masonry Works

Cast-in-place concrete

- 1. Concrete works include columns, footings, bleacher and slab on fill.
- 2. Concrete mix should be 3500 psi @ 28 days . Material testing must be provided.
- 3. Column should be synthetic finished.
- 4. Deformed bar to be used shall be grade 40. Provide material testing. See plan for BAR sizes to be used.
- 5. Provide necessary tools and equipment needed to complete concrete works.

## III. Trusses and Roofing Works

Fabrication/supply & installation of steel trusses and roofing

### 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 each of epoxy primer and QDE black.
- 3. Provide necessary tools and equipment.
- 4. All joint connections should be fully welded.
- 5. Use CEE purlins 2" x 6" x 2.0 mm. thk. @ 0.60 m. on center.
- 6. Provide 12 mm 0 with nut and washer for sag rod.
- 7. Provide 16 mm 0 plain bar with standard turnbuckle for horizontal cross bracing
- 8. Provide 4-28 mm x 600 mm. x 100 anchor bolts with nut and washer for each support.

### B. Roofing:

- 1. Adopt gauge 26 (0.6 mm) rib type pre-painted long span roofing sheet (roofing/cladding).
- 2. Adopt gauge 26 (0.6 mm) x 24" pre-fabricated and pre-painted ridge roll.
- 3. Adopt gauge 26 (0.6 mm) stainless gutter.
- 4. Adopt gauge 26 (0.6 mm) pre-fabricated and pre-painted flushing/molding.
- 5. All attachment for roofing sheet and ridge roll shall be 2 1/2" teckscrew for metal.
- 6. Supply and installation of 1" insulation (double-foil) with painted 1/2" G.I. screen for the whole area of roofing.
- 7. Provide water sealant for all attachment (water sealant should be provided for both inside & outside surfaces of teckscrew head)

## IV. Carpentry Works

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

### V. Plumbing Works

- A. Sewer Line
- 1. Adopt PVC heavy duty orange pipe and fittings S 1000 for storm drainage and downspout
  - Use PVC pipe 6" for storm drainage.
  - Use PVC pipe 4" o for down spout.
- 2. Provide catch basin for every down spout.
- 3. Tapping to the existing drainage is included.

### VI. Electrical Works

- 1. Installation of feeder line including all its accessories.
  - Installation of LPP and all other panel boards on the plan and their circuit breakers. Bolt-on type Nema Standard should be used. Tap to the source including testing.
  - a. 1 set of LPP Panel board 6 branches, 2P

Main: 1-60AT/ 100AF/240V, 2P with 5-20AT/ 100AF/ 230V, 2P

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- b. 2 pcs. Safety breaker 30 amp.
- 2. Installation of wiring/conductors and G.I. conduits/junction box from main/sub-main panel boards
  - THWN stranded wire, phelp dodge or approved equal.
  - Conduit G.I. pipe with sizes as indicated on the plan.
  - Junction boxes should be G.I. & deep type.
- 3. Installation of electrical fixtures and other electrical devices.
- Supply and Installation of 24 sets of High bay IP 65 aluminum gear box with metal halide lamps aluminum dome 16" with LED bulb (200W)
- 5. Provide painted metal housing for LPP.
- VII. See existing and plans for details and extent of work. The silence of specification, plans, special provisions and supplementary specifications as to any detail, or the apparent omission therein of a 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.

## B. STAGE

- 1. The project should be finished for 90 calendar days.
- 2. Site inspection is a must to verify its condition.

## **Technical Description**

#### I. Earthworks

- A. Excavation/chipping/dismantling/backfilling/clearing:
  - The area should be cleared before and after the construction work at least six meters away from the building line. Unusable used formworks, excessive soil fill and all other unwanted debris of construction works should be disposed properly.
  - 2. Excavation for column footing, wall footing, storm drainage, catch basin and septic tank.
  - 3. Provide temporary site enclosure.
- B. Additional fill /soil poisoning
  - 1. Additional fill is included.
  - 2. Gravel fill = 0.05 m. thick
  - The area within the specified grid of the proposed building should be treated with termite proofing.

## II. Concrete Works

- A. Cast-in-place concrete
  - 1. This work includes concrete works within the specified grid of the building, such as footing, column, stiffiners, lintel beams, slab and roof beam.
  - Strength of concrete to be adopted shall be 3500 psi @ 28 days.
  - 3. Concrete works should be free from honeycomb upon turn-over.
  - 4. Provide necessary tools and equipment needed for concrete works.
- B. Steel reinforcement
  - 1. Use deformed bar grade 40. See plan for sizes of bars needed.
  - 2. Provide necessary tools and equipment needed for steel works.
  - 3. See plan for details and extent of work.
- C. Material testing for construction materials and cylinders shall be conducted and shouldered by the contractor.

### III. Masonry & Tile Works

- Installation of CHB reinforced with 10 mm 0 deformed bar spaced at 0.60 m. on center every three layers.
  - a. CHB 5" for the perimeter/exterior walls and one unit septic tank.
  - b. CHB 4" for interior/partition walls and catch basin.
- 2. Masonry works should be plastered plain cement.
- 3. Supply and installation of non skid tiles 0.40 m. x 0.40 m. for the entire floor of stage. Tiles must be accented with dark colors.

- 2. Supply and installation of ceramic colored tiles 0.20 m. x 0.20 m. for comfort rooms.
  - \* Tiles must be installed for the entire floors and walls.
  - \* Walls should be provided with accent/belts using dark colored decorative tiles
- 3. Supply and installation of pebbles white for stairs and landings.
- 4. Consult the end user for color preference of tiles.

#### IV. Miscellaneous Works

- A. Supply and Installation of all doors & windows needed to complete the project.
  - 1 Doors
    - a. For steel doors (powder coated finished complete with all accessories).
  - Provide heavy duty hinges and lever locksets.
  - Provide KD lumber for jambs, framing and braces.
    - b. For alumium door with 1/4" thk. frosted glass. (comfort room)
  - Provide heavy duty hinges, door closer and locks
  - Provide heavy duty accessories
  - 2. Windows
    - a. Aluminum sliding glass window complete with all accessories;
       1/4" thk. colored glass; powder coated aluminum framing & 2"x 4" jamb;
  - Stair railing
  - Provide stainless stair railing.

### V. Carpentry Works

- 1. Provide necessary form lumber and scaffolding for the completion of the project.
- 2. Provide ceiling works for the entire area (interior).
  - a. Use marine plywood 1/4" for ceiling board.
  - b. Use 2" x 3" as ceiling runner at 1.20 m. on center both ways, use 2" x 2" as ceiling joist at 0.40 m. on center. Wood to be used must be good lumber.
  - c. Provide 3" corneza for ceiling corners (interior).
  - d. Provide 10 mm. deformed bar coated with primer and paint for ceiling hanger.
- 3. Provide ceiling works for the eave
  - a. Use pre-painted spandrel for ceiling board.
  - b. Use pre-painted end molding and center molding
  - d. Provide ceiling ventilation for all corners of eave.

### VI. Trusses & 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 CEE purlins ga. 16, 2" x 4" @ 0.60 m. on center.
- 6. Provide 12 mm. O plain bar with standard turnbuckle for horizontal cross bracing
- 7. Provide 4-16 mm. O anchor bolts with nut and washer for each support.
- 8. Provide 12 mm. O with nut and washer for sag rod.

### B. Roofing:

- 1. Adopt gauge 26 rib type pre-painted roof sheet.
- 2. Adopt gauge 26 stainless gutter.
- 3. Adopt stainless valley gutter.
- 4. Provide ga. 26 pre-painted EZ clad.
- 5. All attachment for roofing sheet and ridge roll shall be 2 1/2" teckscrew for metal with water sealant.

## VII. Plumbing Works

- A. Storm Drainage, Septic Tank
  - 1. Construction of catch basin and septic tank
  - 2. See plans for detail and extent of works.

- B. Water Supply Line
  - 1. Adopt PPR pipes and fittings for water line.
  - 2. Tapping to the source is included.
  - 3. Provide one unit heavy duty faucet (US) for each cubicle of comfort room.
  - 4. Provide one unit stop valve for every comfort.
- C. Sewer Line
  - 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 vault fittings.
    - Use 6" o for main line.
    - Use 4" o for water closet.
    - Use 3" o for all floor drains and ventilation.
    - Use 2" o 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. Fixture and Tile Works
  - 1. For Comfort Room (All fixtures must be TOTO/HCG/American Std or any approved equal complete with heavy duty fittings and accessories)
    - a. Provide brass floor drains and heavy duty faucet for every cubicle. See plan.
    - b. Adopt colored tank type water closet.
    - c. Adopt colored under the counter lavatory with counter top granite slab finish
    - d. Adopt colored urinal with partition

### VIII. Electrical Works

- A. Supply and installation of the following:
- 1. PVC pipes including wiring from main panel to sub-main panel.
- Feeder line/main line should be from building to secondary post only.Secondary post should be at a maximum of 20 meters from the building.
- All panel boards and circuit breakers needed to complete the project.
   I Bolt-on type Nema Standard should be used.
- 4. Conductors and PVC conduits/junction box/utility box /convenience outlet/light outlet
  - PVC conduit orange pipe
  - Utility and junction boxes should be PVC & deep type.
  - THWN stranded wires with sizes indicated on the plan
- 5. Electrical fixtures/switches/outlets and other electrical devices.
  - Switches (Bticino, National or approved equal)
  - Convenience outlet (Bticino, National or approved equal)
  - ACU, special purpose, emergency light & exhaust fan outlets (Bticino, National or approved equal)
  - 6 units Emergency light
  - 2 units window type 2 HP ACU
  - 8 sets Flood lamp
  - 8 sets Spot light (LED, 12W)
  - 26 sets of Pinlight (LED, 9W) surface type
  - 21 sets of Flourescent lamp (LED) 1-12W with aluminum louver diffuser
- B. Other matters concerning electrical works
- 1. All emergency light outlet should be installed to lighting circuit outlet.
- 2. All fire alarm should be connected to Fire Alarm Control Panel (FACP).
- 3. Testing/commissioning of electrical system.
- 4. See electrical plan and specification for additional information

### IX. Painting Works

For painting works: (PAINTING OF THE WHOLE BUILDING)

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.

X. See plans for details and extent of work. The silence of specification, plans, special provisions and supplementary specifications as to any detail, or the apparent omission therein of a 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/employed.

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