

**CONSTRUCTION OF CARPORT. STOCKROOM AND EXTENSION CR OF BALANGA BRANCH**

Project Name

**CAPITOL DRIVE, BRGY. TENEJERO, BALANGA CITY, BATAAN**

Project Location

**BILL OF QUANTITIES**

ITEM NO.	DESCRIPTION	SCOPE OF WORKS / SPECIFICATIONS
<b>1</b>	<b>GENERAL REQUIREMENTS</b>	
1.1	<b>Construction health and safety program</b>	a.) Wearing of ANSI standard PPEs, provision of safety signages and compliance to DOH, DOLE and LGU protocols shall be observed on the project site. b.) A bonafide Safety Officer shall always be present on site.
1.2	<b>Clearances/permit requirements</b>	a.) Contractor shall assist in the application/processing of all necessary local clearances/permits. b.) All plans and specifications shall be signed and sealed. c.) Reproduction of plans (3sets) shall be included. d.) Approved copies of the documents and original receipts shall be turned-over to DBP.
1.3	<b>Temporary structures</b>	Upon completion of works, the Contractor shall remove all temporary structures before leaving the premises.
1.3.1	Temporary utilities	All utility consumption (water and power) during construction shall be charged to the Contractor.
1.3.2	Temporary scaffoldings and platforms	-
1.3.3	Temporary project signage/billboard	Project billboard shall be 4" width x 8' length tarpaulin on 1/2" thick marine plywood provided with necessary frame or support to mount the billboard (refer to IRR of PD 1096 S.2005 Section 306 Figure III.5)
1.4	<b>Mobilization and demobilization</b>	-
1.5	<b>Lay-out/staking</b>	Initial site layout shall be approved by DBP before proceeding with any civil works (if applicable).
1.6	<b>Site maintenance</b>	
1.6.1	Site cleaning	a.) Daily site cleaning shall be required. b.) Final and thorough cleaning shall be done prior to turn-over of site to DBP.
1.6.2	Hauling/disposal	a.) All old materials, trash, debris, including hazardous waste (spills) shall be removed from the immediate work area as the work progresses. It shall be carefully piled up and/or properly segregated in a appropriate container before disposal. b.) Weekly hauling is required.
1.7	<b>As-built plans</b>	Three (3) sets of blueprint signed and sealed; and CAD file shall be sent thru email
<b>2</b>	<b>CONCRETE</b>	
		a.)Gravel shall be clean, washed, and graded "G-1" crushed stone aggregates conforming to ASTM C-33. b.)Sand shall be cleaned, washed and free from deleterious materials conforming to ASTM C-40. c.)Water shall be clean, clear and without acidic or salinic contents. d.)Cement shall be portland cement or approved equal conforming to ASTM C-150.
2.1	<b>Concrete members</b>	
2.2.1	Concrete on column footing	Concrete mixture/ratio shall be class A.
2.2.2	Concrete on column	Concrete mixture/ratio shall be class A.
2.2.3	Concrete on stiffener column	Concrete mixture/ratio shall be class A.
2.2.4	Concrete on bond beam	Concrete mixture/ratio shall be class A.
2.2.5	Concrete on lintel beam	Concrete mixture/ratio shall be class A.
2.2.6	Concrete on wall footing	Concrete mixture/ratio shall be class A.
2.2.7	Concrete on slab (on-grade)	Concrete mixture/ratio shall be class B.
2.2.8	Concrete on counter (lavatory)	Concrete mixture/ratio shall be class B.
<b>3</b>	<b>MASONRY</b>	
3.1	<b>CHB wall - 6" (masonry wall)</b>	a.) CHB shall be 400 PSI compressive strength (minimum), normal in weight and in conformance to ASTM C-90, Type 1. b.) Rebar diameter shall be 10mm. c.) Concrete filler mixture/ratio shall be class A. d.) Both sides shall be plastered

ITEM NO.	DESCRIPTION	SCOPE OF WORKS / SPECIFICATIONS
<b>4</b>	<b>METALS</b>	
<b>5.1</b>	<b>Metal fabrications</b>	All fabricated metal components shall be painted with two (2) coats red-oxide primer.
5.1.1	PWD grab-bar	Materials shall be 37.5mm stainless steel grab rail on 75mm dia. escutcheon plate with 4 pcs. stainless steel screws and expansion bolt.
<b>5.2</b>	<b>Reinforcing bars</b>	All rebars shall be of standard size; deformed shall be billet steel, hard, or structural grade.
5.2.1	Rebars on wall footing	Refer to structural details for rebar size/s.
5.2.2	Rebars on slab (on-grade)	Refer to structural details for rebar size/s.
5.2.3	Rebars on column	Refer to structural details for rebar size/s.
5.2.4	Rebars on stiffener column	Refer to structural details for rebar size/s.
5.2.5	Rebars on lintel beam	Refer to structural details for rebar size/s.
5.2.6	Rebars on bond beam	Refer to structural details for rebar size/s.
5.2.7	Rebars on counter (kitchen sink)	Refer to structural details for rebar size/s.
<b>5.3</b>	<b>Tie wires</b>	Shall be gauge #16 galvanized iron
<b>5.4</b>	<b>Roof members</b>	All fabricated metal components shall be painted with two (2) coats red-oxide primer.
5.4.1	GI tubular trusses	2" x 6" x 1.5mm GI tubular trusses
5.4.1	GI tubular rafters	2" x 6" x 1.5mm GI tubular rafters
5.4.1	GI tubular purlins	2" x 2" x 1.5mm GI tubular purlins
5.4.1	GI tubular fascia	2" x 6" x 1.5mm GI tubular fascia
5.4.1	Sag rod	10mm dia round bar
<b>5</b>	<b>WOODS PLASTICS AND COMPOSITES</b>	
<b>5.1</b>	<b>Formworks</b>	Maximum re-use of formworks shall be: 7 uses/repetition for 12mm thick plywood and 20 for uses/repetition for 18mm thick plywood
<b>6</b>	<b>THERMAL AND MOISTURE PROTECTION</b>	
<b>6.1</b>	<b>Roofing materials</b>	
6.1.1	Pre-painted long span aluminum roofing (rib type)	a.) Thickness: 0.5mm b.) Roof type: rib type c.) Material: aluminum d.) Finish: pre-painted, color: white e.) Roof sheet shall be properly fastened f.) All terminations and roof fasteners shall be properly sealed
6.1.2	Roof flashing	a.) Verify applicable flashing thickness b.) Material: aluminum c.) Finish: pre-painted, color: white d.) Flashing shall be properly fastened and sealed
<b>7</b>	<b>DOORS AND WINDOWS</b>	
<b>7.1</b>	<b>Metal doors (including door jamb)</b>	
7.2.1	Hollow metal door with louver (single)	a.) Opening size: 800mm width x 2100mm length/height b.) Door thickness: 50mm c.) Door material: GA 16 galvanized sheets on both sides clad with stainless sheets; framing per manufacturer's standard; d.) Door jamb: 4" thk GA 16 single rabbet metal jamb with stainless steel finish e.) Stainless louver shall be included a.) Refer to schedule of doors
<b>7.2</b>	<b>Door accessories</b>	
7.6.1	Door knob (lever type, keyed)	a.) Door knob shall be lever type (keyed) and in satin stainless finish. b.) Keys shall be turned-over to DBP upon completion of works. c.) Refer to schedule of doors for mounting height and distance from edge.
7.6.2	Door stopper (floor mounted)	Door stopper shall be magnetic, wall-mounted and in satin stainless finish.
7.6.3	Door closer (pneumatic)	Door closer shall be pneumatic, surface mounted and in satin stainless finish.
7.6.4	Stainless steel door hinges (loose pin)	a.) Hinge dimensions: 3.5" x 3.5". b.) Hinge shall be loose pin type (4 holes) and in satin stainless finish. c.) Four (4) set/s shall be provided for wooden door/s. d.) Refer to schedule of doors

ITEM NO.	DESCRIPTION	SCOPE OF WORKS / SPECIFICATIONS
<b>8</b>	<b>FINISHES</b>	
<b>8.1</b>	<b>Wall finishes</b>	
8.1.1	Polished homogenous tile finish - beige (walls)	a.) Tile size: 600mm x 600mm (verify applicable thickness) b.) Tiles shall be polished homogenous tiles (full body porcelain tiles) with beige finish. c.) 3mm tile grout matching the tile color shall be provided. d.) Contractor shall provide samples for DBP approval. e.) Refer to toilet elevations at architectural plans.
<b>8.2</b>	<b>Ceiling finishes</b>	
8.2.1	Plaster and gypsum board (ceiling)	a.) Materials shall be 12.5mm thick moisture resistant gypsum board screw attached on 2" GI double furring channel spaced 0.60m on center. b.) Hanger rods, clips, carrying channels and all necessary accessories in order to mounth the ceiling shall be included. c.) Hanger rods shall be 6mm dia. bar. d.) All sides attached to wall shall be provided with wall angle. e.) Refer to ceiling plan at architectural plans.
<b>8.3</b>	<b>Floor finishes</b>	
8.3.1	Non-skid homogenous tile finish - light brown (flooring)	a.) Tile size: 600mm x 600mm (verify applicable thickness) b.) Tiles shall be non-skid/slip homogenous tiles (full body porcelain tiles) with brown finish. c.) 3mm tile grout matching the tile color shall be provided. d.) Contractor shall provide samples for DBP approval. e.) Refer to tiling layout at architectural plans.
8.3.2	Vinyl tiles flooring - cottage tan	a.) Tile size: 300mm x 300mm (verify applicable thickness) b.) Tiles shall be vinyl finish (cottage tan). c.) Self-leveling grout shall be applied prior to tiles installation. d.) Contractor shall provide sample/s for DBP approval. e.) Refer to tiling lavout at architectural plans.
<b>8.4</b>	<b>Painting works</b>	
8.4.1	Exterior painting (walls)	a.) All masonry/concrete walls shall be applied with masonry neuralizer with 1:16 neuralizer-water ratio. b.) Contractor shall apply masonry putty and ensure that the wall surface is smooth and free from defects prior to painting. c.) Primer acrylic latex paint (color: white) shall be applied to ensure that paint will bond to the wall surface. d.) Two (2) coats of semi-gloss acrylic latex paint (color: white) shall be used for finishing/final coating.
8.4.2	Exterior painting (metal components)	a.) All fabricated metal components, metal doors or any metals exposed to weather shall be painted with two (2) coats of zinc oxide. b.) Contractor shall apply applicable putty and ensure that the metal surfaces are smooth and free from holes prior to painting works. c.) Epoxy primer (verify color) shall be applied to ensure that paint will bond to the metal surface. d.) Two (2) coats of glossy epoxy paint (verify color) shall be used for finishing/final coating.
8.4.3	Interior painting (walls)	a.) All masonry/concrete walls shall be applied with masonry neuralizer with 1:16 neuralizer-water ratio. b.) Contractor shall apply masonry putty and ensure that the wall surface is smooth prior to painting. c.) Primer acrylic latex paint (color: white) shall be applied to ensure that paint will bond to the wall surface. d.) Two (2) coats of semi-gloss acrylic latex paint (color: white) shall be used for finishing/final coating.
8.4.4	Interior painting (ceiling)	a.) All concrete underslab shall be applied with masonry neuralizer with 1:16 neuralizer-water ratio. b.) Contractor shall apply masonry putty and ensure that the wall surface is smooth and free from defects prior to painting. c.) Primer acrylic latex paint (color: white) shall be applied to ensure that paint will bond to the wall surface. d.) Two (2) coats of flat finish acrylic latex paint (color: white) shall be used for finishing/final coating.

ITEM NO.	DESCRIPTION	SCOPE OF WORKS / SPECIFICATIONS
8.4.5	Interior painting (doors and door jamb)	a.) Contractor shall apply masonry putty and ensure that the door and jamb surface is smooth and free from defects prior to painting. c.) Lacquer primer paint (color: white) shall be applied to ensure that paint will bond to the wall surface. d.) Two (2) coats of duco/high gloss lacquer paint (color: white) shall be used for finishing/final coating.
<b>8.5</b>	<b>Other finishes</b>	
8.5.1	Granite countertop	a.) Material: solid granite stone b.) Finish: polished c.) Thickness: 3/4" d.) Provide sample for DBP approval e.) Edges/terminations along wall shall be properly sealed
<b>9</b>	<b>FURNISHINGS</b>	
<b>9.1</b>	<b>Storage furnitures</b>	
9.1.1	Steel shelves	a.) Minimum shelves dimensions: 400mm width x 1840mm height x 900mm length x 5 layers b.) Shelves shall be boltless and adjustable c.) Material: metal d.) Finish: powder coated, light gray e.) Provide brochure/sample specifications for DBP approval
<b>10</b>	<b>PLUMBING</b>	
<b>10.1</b>	<b>Kitchen/toilet fixtures and accessories</b>	
10.1.1	Water closet (one-piece, dual flush type)	a.) Preferred water closet dimensions: 732mm height x 720mm length x 393mm width or equivalent b.) Water closet shall be one-piece, 6LPF with single push-button flush, close coupled, elongated and with semi-concealed full glazed trap way. c.) Finish shall be made of fully glazed and polished white ceramic. d.) All necessary accessories in order to operate the water closet shall be included. e.) Design shall be modern
10.1.2	Lavatory (wall-mounted type)	a.) Preferred lavatory dimensions: 500mm length x 375mm width x 459mm thickness or equivalent b.) Lavatory shall be wall-mounted type and made of glazed and polished white ceramic finish. c.) Design shall be modern
10.1.3	Floor drain with strainer (stainless steel finish)	a.) Floor drain dimensions: 100mm x 100mm b.) Floor drain shall have multi-layered grating/drain and shall be in stainless steel finish. c.) Refer to location of floor drain at plumbing plans.
10.1.4	Clean-out (4", brass finish)	a.) Clean-out shall be 4" dia. and in brass finish. b.) Refer to clean-out location at plumbing plans.
10.1.5	Above-counter faucet (stainless, lever handle, standard spout)	Faucet shall be above-counter mounted, stainless steel finish with lever handle and standard spout.
10.1.6	Hand bidet (stainless steel finish)	Bidet shall be in stainless steel finish and at least 1m long.
10.1.7	Soap dispenser (wall mounted, push-button type)	a.) Soap dispenser shall be wall mounted, push-button type and stainless steel finish. b.) Contractor shall verify actual mounting height and location.
10.1.8	Tissuer holder (wall mounted, stainless steel finish)	a.) Tissue holder shall be wall-mounted (400mm above finish floor line) and in stainless steel finish. b.) Contractor shall verify actual mounting location.
10.1.9	Clothes hook (single, stainless steel finish)	a.) Clothes hook shall be mounted at the interior back side of the toilet door, single hook and in stainless steel finish. b.) Contractor shall verify actual mounting height.
<b>10.2</b>	<b>Pipes and fittings</b>	
10.2.1	20mm dia PPR cold water line (4m/pc)	a.) Color: white b.) Exposed pipes shall be properly labeled.
10.2.2	15mm dia PPR cold water line (4m/pc)	a.) Color: white b.) Exposed pipes shall be properly labeled.
10.2.3	100mm dia PVC waste pipe (3m/pc)	a.) Color: gray/dark gray b.) Exposed pipes shall be properly labeled.
10.2.4	50mm dia PVC vent pipe (3m/pc)	a.) Color: gray/dark gray b.) Exposed pipes shall be properly labeled.

ITEM NO.	DESCRIPTION	SCOPE OF WORKS / SPECIFICATIONS
10.2.5	Gate valve	a.) Size: 3/4" dia. b.) Type: gate valve c.) Material: brass d.) Refer to plumbing plans for the layout.
10.2.6	Fittings	All necessary fittings to complete the plumbing works shall be included.
<b>10.3</b>	<b>Other accessories</b>	
10.3.1	Consumables	All necessary consumables to complete the plumbing works shall be included.
<b>11</b>	<b>HVAC</b>	
<b>11.1</b>	<b>Exhaust systems</b>	
11.1.1	Exhaust fan (ceiling mounted)	a.) Contractor must refer to mechanical plans for location and specifications. b.) Contractor to install necessary accessories: hanger & support, mounting accessories, switches
<b>11.2</b>	<b>Exhaust pipings and vents</b>	
11.2.1	150mmØ flexible duct (exhaust)	As stated
11.2.2	Exhaust vent (wall mounted)	a.) Size: per applicable duct/pipe b.) Mounting: wall mounted c.) Finish: stainless steel
<b>11.3</b>	<b>Other accessories</b>	
11.3.1	Hangers and support	Hanger rod shall be 6mm dia. bar with expansion shield and bolted on underslab.
<b>12</b>	<b>ELECTRICAL</b>	
<b>12.1</b>	<b>Lighting fixtures</b>	
12.2.1	1-15W E27 LED bulb 6" dia E27 socket lighting fixture (recessed mounted); color: daylight	As stated
12.2.2	1-15W E27 LED bulb 6" dia E27 socket lighting fixture (surface mounted); color: daylight	As stated
12.2.3	1-16W 1200mm T5 LED tube on 300mm x 1200mm mirrorized lighting fixture	As stated
<b>12.2</b>	<b>Wires and cables</b>	
12.2.1	3.5mm² THHN stranded wire (150m/roll)	600 Volt grade wire shall be copper, hard drawn, annealed and shall be of 910% conductivity
<b>12.3</b>	<b>Conduits and fittings</b>	
12.3.1	20mmØ PVC pipe (3m/pc), with adapter and locknut	Pipe shall be unplasticized Polyvinyl Chloride (uPVC), schedule 40 and uniform in thickness.
<b>12.4</b>	<b>Boxes</b>	
12.4.1	Junction box with cover (PVC)	As stated
12.4.2	Utility box (PVC)	As stated
<b>12.5</b>	<b>Switches and outlets</b>	
12.5.1	1-gang switch with plate (16A)	a.) Switch type: 1 gang switch with plate cover b.) Color: white c.) Rating: 16A d.) Voltage: 220-250V e.) Material: polycarbonate
14.9.2	2-gang switch with plate (16A)	a.) Switch type: 2 gang switch with plate cover b.) Color: white c.) Rating: 16A d.) Voltage: 220-250V e.) Material: polycarbonate
14.9.3	3-gang switch with plate (16A)	a.) Switch type: 3 gang switch with plate cover b.) Color: white c.) Rating: 16A d.) Voltage: 220-250V e.) Material: polycarbonate

ITEM NO.	DESCRIPTION	SCOPE OF WORKS / SPECIFICATIONS
<b>13</b>	<b>ELECTRONIC SAFETY AND SECURITY</b>	
<b>13.1</b>	<b>CCTV surveillance system</b>	
13.1.1	5MP CCTV camera (bullet type)	a.) Contractor to refer to ECE plans for technical specifications and locations. b.) Contractor to install all necessary accessories to complete and operate the system. c.) Contractor to ensure compatibility & readiness of the system for central monitoring integration. d.) Contractor shall provide all manuals and must schedule and conduct orientation/training for the DBP branch personnel for the maintenance and upkeep of the installed CCTVs. e.) Contractor to provide and install all necessary accessories to complete the system.
<b>13.2</b>	<b>Wires and cables</b>	
13.2.1	Cat5e UTP cable 4 pairs (305m/box)	a.) Cat5e UTP cable 4 pairs min. 100mbps receiving b.) Conductors: Solid bare copper conductors c.) Insulators: Polyolefin insulation d.) Jacket: Gray PVC jacket with rip cord
<b>14</b>	<b>EARTHWORK</b>	
<b>14.1</b>	<b>Excavation</b>	Refer to foundation plan