



PHILIPPINE GENERAL HOSPITAL
The National University Hospital
University of the Philippines Manila
OFFICE OF ENGINEERING AND TECHNICAL SERVICES
Taft Avenue, Manila

*PHIC-Accredited Health Care Provider
ISO 9001:20015 Certified*

Project Title : PROPOSED RENOVATION OF TOILETS AND CONSTRUCTION OF SEPTIC TANK
Location : Ground Floor, Dormitory 3 Building, UP-PGH Compound, Taft Avenue, Ermita, Manila

SCOPE OF WORKS & SPECIFICATIONS

GENERAL REQUIREMENTS

1. GENERAL CONDITIONS

- 1.1 The Contractor shall furnish all the materials, labor, tools, equipment, and supervision for the completion of all the works of the Project as indicated on the plans, specifications and contract documents.
- 1.2 The Contractor shall visit and carefully examine the site and check all the possible interference and conditions affecting the works.
- 1.3 Extra care must be observed during dismantling works to avoid damage on the existing facilities such as Telephone and Internet Lines, Paging System Accessories, Medical Gas Lines, Sewer and Water Lines, etc. Any damaged thereof should be restored to its original status at the expense of the Contractor within two (2) weeks. Otherwise, construction activity will be stopped.
- 1.4 The Contractor shall engage under him, a registered Civil Engineer or Architect to supervise his work. The Project Engineer or Architect shall remain at all times in the construction sites. He/she is required to submit a regular status report on the progress of work in accordance to the submitted Gantt chart of activities to track timely accomplishments.
- 1.5 The Plans and Specifications shall be interpreted only by a competent registered Engineer. The Contractor are enjoined to confer with the Project Engineer of OETS on drawing/items he failed to understand before submitting his bid. No excuses shall be entertained for misinterpretation on the Plans and Specifications after the award of the

Contract. All work as deemed provided by the OETS shall be carried out properly by the Contractor.

- 1.6 The Plans and Specifications are complimentary to each other, whatever is not mentioned in one but mentioned on the other shall be considered as if mentioned on both and shall be carried out properly by the Contractor.
- 1.7 Any inconsistency or discrepancy between the Plans and Specifications shall be brought immediately to the attention of the OETS Project Engineer/s who shall decide the correct version of the two with concurrence of the end-user/administration.
- 1.8 No addition or alteration that will result in a change order from the contract shall be allowed without the approval of the PGH Administration. The Contractor shall bring the case to the OETS Project Engineer/s.
- 1.9 One set of the Plans, Specifications and Log Book shall always be kept at the jobsite to be available to the Project Inspector or his representative upon his request during the construction period.
- 1.10 Prior to the installation of any item or material the Contractor shall submit sample with complete specifications to OETS for evaluation and approval of end-users/administration. In case of testing, the Contractor shall notify the OETS and End-user at least one week in advance of making the required tests so that the arrangements can be made for their presence to witness the tests. The necessary materials, labor, devices and all others required to conduct such tests at no additional cost the Owner.
- 1.11 The Contractor is solely responsible for the safety, protection, and security of his personnel, the works, equipment, installations and the like. The Contractor shall adopt or apply the protective measures in accordance with the standards set by the Safety Organizations and the Department of Labor Standards.
- 1.12 The Contract Period of this project is **SIXTY (60) CALENDAR DAYS**.

2. SITE WORKS

2.1 Dismantling

The procedures proposed for the accomplishment of salvage and dismantling or removal works shall be submitted for approval. The procedures shall provide for safe conduct of the work, removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress and timely disconnection of utility services.

2.2 Extent of dismantling/ removal

- a. Removal/dismantling
 - Dismantling of doors, ceiling and Plumbing fixtures.

b. Chipping

- Chipping of existing wall and floor tiles for replacement
- Chipping of concrete flooring for re-piping

2.3 Disposition of dismantled materials

- a. Regular disposal of debris must be done to avoid accumulation. Cleanliness must be observed and maintained always. Dismantled materials that could still be recycled will be turn-over to OETS while the others will be for the disposal of the Contractor with the proper clearance of all concerned including the Disposal and Awards Committee (DAC).

2.4 Excavation and disposal of soil

- Excavation of proposed Septic tank and for laying out of Soil Pipes. Excess soil will be dispose by the contractor.

3. CONCRETE WORKS

3.1. Scope of works

- Construction of proposed Septic Tank
- Concrete topping/re-pavement (toilets floor)

3.2. Materials

Concrete Mix - Class "A" mixture.

Cement - Use Portland Cement all throughout.

Fine Aggregate - Washed Sand

Coarse Aggregate - 3/4" gravel or crushed stone

Mortar shall be one (1) part Portland Cement, ASTM Designation C-150, Type I to two (2) part washed white sand.

Reinforcement shall be structural grade bars conforming to ASTM specifications A15 of size as shown in the plans.

Wires ties shall be Gauge #16

Water shall be clean and free from injurious amounts of oils, acids, alkali and other deleterious substances

4. MOISTURE PROTECTION

4.1 Scope

- Application of cementitious waterproofing for the proposed Septic Tank walls.

4.2 Preparatory Work

All surfaces to be waterproof must be thoroughly cleaned of dirt, dust and all loose materials. Laitance should be removed by wire brushing and any unsound materials should be cut out and the surface made good.

7.3 Materials

- Used cementitious waterproofing. Apply Waterproofing as per recommendation by the manufacturer.

6. FINISHING WORKS

6.1 Ceiling Works

Scope of Works:

Total replacement of ceiling including the ceiling joist.

Materials:

- a. Ceiling shall be 6mm thick Cement Board, “Hardiflex” or approved equivalent
- b. Framing shall consist of light steel channel, double furring with carrying channel, 19mm x 50mm x 0.40mm in thickness, suspended plumb from trusses. Framing spacing shall be 0.40m x 0.50m on center both ways. Hangers spacing shall be 1.00m on center anchored to the Roof frame.

6.2 Tile Works

Scope of Works

- a. Installation of 600mm x 600mm unglazed Ceramic Tiles for the floor.
- b. Installation of 600mm x 600mm glazed Ceramic Tiles for the Wall. Refer Construction plan.

Schedule of Finishes and Specifications

- a. Use class “A” 600mm x 600mm unglazed Ceramic Tiles for the floor approved by End-user.
- b. Use class “A” 600mm x 600mm glazed Ceramic Tiles for the wall, approved by End-user.
- c. Use tile adhesive with superior bonding quality mixed to PLD cement for the installation of ceramic tiles.
- d. Grout shall be of premium quality and resistant to molds.

6.3 Painting

All painting works shall be done with the use of First Class or Class “A” quality paints. Before any painting is done all surfaces shall be cleaned, smoothed and freed from dust, dirt, grease, mortar, rust and other foreign substances where paint shall be spread evenly and carefully.

Schedule of Painting Works

- a. Concrete wall surface and Ceiling – use Flat Latex water-based for the first coat and 2 coats of semi-gloss latex for final color.
- b. Ceiling - use Flat Latex water-based (3 coats)

7. DOORS

7.1 Scope of Works

-Supply and installation of New Doors and Jambs with complete hardware/accessories approved by OETS.

7.2 Installation

- b. Cut, trim and fit each door to its frame and hardware accurately.
- c. Hollow Core Flush Door shall have a cross bonding and edgings. Make face veneer of first quality selected marine plywood. Provide lock blocks or size required for hardware used.
- d. All doors shall operate freely and all hardware shall be properly adjusted and functioning.

7.3 Materials

- refer to the Doors and Windows Schedule on the Plan.

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| -Door Lockset | - Cylindrical Type, 3-keyed, stainless steel, hairline finish heavy duty. |
| -Hinges | - Each panel of hinged door shall hung on Three (3), 3-1/3" x 3-1/3", Loose Pin hinge for doors 1.80m or less in height and Four (4), 3-1/2" x 3-1/2" Loose Pin hinge for doors 2.10m in height or more. |
| -Door Stopper | - Show sample before installation, Approved by OETS. |

8. ELECTRICAL WORKS

Scope of Works

- a. Supply and installation of LED Lighting Fixture, Switches with necessary wirings inside conduit piping. (rewiring)
- b. Supply and installation of Exhaust Fans, with necessary wirings.
- c. Testing and commissioning.

Materials

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|------------------|---|
| Wires | - THHN , Insulated, Stranded |
| Lighting Fixture | - 11 W, 220V, LED Bulb, in 4 inches diameter recessed mounted luminaire |
| Switches | - "National" brand or approved equal. |
| Conduits | - PVC pipes and fittings, conforms to the PNS 14. |
| Utility Box | - PVC, deep type. |

9. PLUMBING WORKS

9.1 Scope

- a. Re-installation of water pipe line to the new Toilets and lavatories. As per plan.
- b. Re-installation of sewer pipe lines as per plan.

- c. Supply and installation of Water Closets, bidet, Lavatories, telephone Shower with faucet, Plain Bibb Faucet, Floor Drains, Mirrors, Gate Valves and other plumbing fixtures and accessories to complete the system.

9.2 General

The project drawing shown in the general requirements as to sizes, arrangement, extent of piping, and location of the equipment. Unless otherwise indicated or specified herein, work shall be accomplished in accordance with the National Plumbing Code.

9.3 Standard Products

Materials and equipment furnished under this specification shall be standard products of Manufacturer regularly engaged in the provision.

9.4 Materials

- a. All pipes shall be installed as indicated on plans; any relocation required proper execution of other trades should be with prior approval of the Engineer.
- b. Proposed sanitary utilities shall conform to the actual location depth and invert elevations of all existing pipes and structures as verified by the Contractor.
- c. All slopes for horizontal drainage shall maintain 1% unless otherwise specified.
- d. Sizes of water supply pipes to fixtures shall be in accordance with the manufacturer's instructions.
- e. The Contractor shall verify all existing pipes at site and coordinate the works of the sewer line, effluent disposal point, and water service connecting point.
- f. All pipes sizes are in millimeters and dimensions are in meters unless otherwise specified.
- g. Cold Water Line
Use standard PPR Pipe.
- h. Sewer Line
Use uPVC pipe S1000.
- i. Vent Pipes
50mm dia. S1000.
- j. Gate Valves
Conforming to ASTM 80-120, heavy duty.(PPR)
- k. Water Closet

Tank Type, 6.0 lpf/1.6gpf, standard size, Color: White/approved by End-user with heavy duty Tank fittings and with bidet.

- l. Lavatory
Semi-Pedestal Lavatory of standard size (Color: White or approved by End-user), with heavy duty stainless Lavatory Faucet.
- m. Floor Drain
Use 100mm x 100mm brass top, CI body, SQ4.

- n. Wall Faucet
Ordinary faucet, plain bibb, brass finish.
- o. Cleanout Plug
Use 100mm Countersunk Square Head Cleanout Plug with 1/4-20 Tap, Southern Code, Cast Brass Pipe Fitting


10. OTHERS

Restoration Works

– all damages occur during construction must be restore by the contractor.


Prepared by:

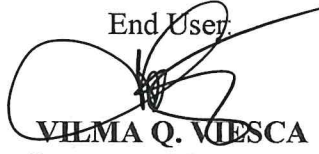
 15 JULY 2020
ENGR. JIMUEL Q. DEL MONTE JR.
Engineer II, Project Management Unit


ENGR. DANILO H. METRILLO
Head, Plumbing Unit



ENGR. MAXIM V. TORREJOS
Head, Electrical Unit

Reviewed and endorsed by:

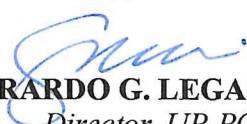

ENGR. LORNA POUNTAIN
Head, Physical Plant Section

End User:

VILMA Q. VIESCA
Dormitory Manager III

Recommending Approval:


MA. TERESA JULIETA U. BENEDICTO, MD
Deputy Director for Administration

Approved:


GERARDO G. LEGASPI, MD
Director, UP-PGH

JUL 23 2020