



Project: PROPOSED HAZARDOUS WASTE STORAGE FACILITY
Location: SLSU-MAIN, SOGOD CAMPUS, SOGOD, SOUTHERN LEYTE
Subject: SCOPE OF WORK/ MATERIAL SPECIFICATION/ WORKMANSHIP
ABC: Php 1,900,000.00

The Contractor shall furnish labor, tools, equipment, PPE, and supervision to perform satisfactorily all the required works for the project. The work shall include but is not limited to mobilization, demobilization, excavation, masonry works, plastering, backfilling/compaction, construction of temporary facilities, and housekeeping.

A. MATERIAL SPECIFICATIONS

A.01 GENERAL REQUIREMENTS

Temporary Facility: Located at strategic site nearby the project
Protection Fences:
PPE: Hard Hat, Protection Glasses (Clear Glass during night works), Safety Shoes
Permits: Building permit
Project Sign Board: Tarpaulin
As-Built Plans: 1 original + 3 copies

A.02 EARTHWORKS

Backfill Materials: Excavated materials can be used as backfill materials provided that is not more than 4" and sources must be subject to approval of Project's TWG.

A.03 REINFORCED CONCRETE WORKS

Cement: Portland, ASTM C150, 40 kg per bag
Washed Sand: Cleaned, screened properly graded, washed
Gravel: Clean, properly graded, crushed or round, minimum size = 3/4" Ø
Water: Clean and free from any amount of oil, acids, alkali, organic materials, and other substances deleterious to concrete mix.
Concrete Mix: $f_c' = 21 \text{ Mpa @ 28 days}$
Concrete Mix Ratio: Class A 1:2:4 by volume
Rebar: Deformed, minimum yield strength $f_y = 414 \text{ MPa}$ grade 33
Tie Wire: G.I. Tire Wire Ga. #16

A.04 FORMWORKS AND SCAFFOLDING

Coco Lumber: allowed for use provided its normal strength has not deteriorated.
Assembly type: installed forms must be sturdy, stiff durable, and with true/correct alignment & elevation

A.05 MASONRY WORKS

CHB: 6" thk minimum strength = 2.5 Mpa (exterior walls)
4" thk minimum strength = 2.5 Mpa (interior walls)
RC Walls: 4" thk subject to Project's TWG approval (optional)
Mortar Mix:
- By volume :
(a) CHB laying 1 cement = 3 sand
(b) Tool joint finishing 1 cement = 2 sand
Rebar: Deformed, minimum yield strength $f_y = 414 \text{ MPa}$ grade 33
Water: Clean and free from any amount of oil, acids, alkali, organic materials, and other substances deleterious to concrete mix.

A.06 ROOFING WORKS

Trusses: Fully weld
C-Purlins: 50mm x 100mm x 1.5mm
Roof Sheet: Ga.#24 ordinary corrugated pre-painted roof sheets, Blue color
Ceiling Joist: Metal furring (double)

A.07 DOORS AND WINDOWS

Main Door and Side Doors: Panel door with door jamb opening Outwards
Compartment Doors: Flush type door with door jamb
Entrance Doors: Aluminum Roll-up door
Good Lumber: Must be aged lawa-an, mahogany, acacia mangium or equivalent and free from any defects. Must be treated with anti-termite chemicals.
Door Knob: Stainless Type
Windows: Aluminum Analok frame Awning window glass

A.08 PAINTING WORKS

Exterior Painting: Pressure clean and remove oil, grease and loose foreign matter which causes neither undue damage to the substrate nor damage to, or contamination of the surroundings or the paint system to be applied

A.09 ELECTRICAL WORKS

Materials: Comply with Philippine Electrical Code
SOLECO Standards: Black (hot lines); colored wire (ground)
Light Bulb: LED lights
Smoke Detector: Comply with Philippine Electrical Code
Emergency Light: Comply with Philippine Electrical Code

B. WORKMANSHIP

B.01 Site Clearing

- All surface objects and all trees, stumps, roots and other protruding obstructions not designated to remain, shall be cleared and removed. Stump holes and other holes from which obstructions are removed shall be manually backfilled with suitable materials and manually compacted to the satisfaction of the Project's TWG.

- The contractor shall be responsible for providing the necessary licenses, approvals and permits in the clearing stage.
 - Hauling of unnecessary objects/ materials/ debris on site is also under the responsibility of the contractor.
- B.02 Excavation**
- Properly sloped to provide safe working condition. Drain or pump-out water from excavation before proceeding to any activity. Excavated materials can be temporarily stocked within vicinity but must be kept tidy/safe and must not obstruct normal movement within the area. All excavation must be manually backfilled to the satisfaction of Project's TWG.
- B.03 Backfilling**
- Use excavated materials as backfill material. Use manual tamping at every 0.30 meter thickness or backfill. Discard excavated material with diameter greater than 4". Dispose excess material within 20m radius as pinpointed by Project's TWG. Work area must be properly shaped to the satisfaction of Project's TWG after project completion.
- B.04 Concreting works**
- Rebars must be properly cleaned, spaced, and fastened. Use concrete spacer to maintain required concrete cover. Manual mixing may be allowed subject to approval of the Project's TWG. Dirty aggregates will be discarded and will only be allowed to be use after proper cleaning to the satisfaction of Project's TWG. All concrete works must be covered by pouring permit approved by Project's TWG.
- B.05 Plastering works**
- Minimum thickness is 1/2". Mortar mix must be put in place within 2 hours after water has been added. Follow the mixture specified in A.6 above. All plaster must be cement finish. Finish plaster must be water cured for at least three (3) days.
- B.06 Formworks**
- Coco lumber will be allowed for use provided its normal strength has not deteriorated. Installed forms must be sturdy, stiff durable, and with true/correct alignment & elevation; all to the satisfaction of Project's TWG. Deteriorated and/or misaligned forms will be dismantled and replace without cost to Project
- B.07 Housekeeping**
- Cleanliness and orderliness within the worksite is a must to enhance overall safety for the whole project.
- B.08 Others**
- Contractor's workers must always abide by Project's and School's safety and security rules and regulations. Violating workers will not be allowed to work and will be blacklisted. Details of these rules and regulations will be discussed during the kick-off meeting. List of workers and equipment must be submitted (w/ serial number) during the kick-off meeting.

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