

ANNEX A

PROJECT TITLE : Completion of Students Welfare and Development Center (Completion of Students Development Center)

LOCATION : SLSU-Hinunangan Campus, Hinunangan, Southern Leyte

SUBJECT : Scope of Work/Material Specification/Workmanship

ABC : Php 22,770,000.00

The Contractor shall furnish labor, materials, tools, equipment, PPE, and supervision to perform satisfactorily all the required works for the project. The work shall include but is not limited to general requirements, site works, earthworks, reinforced concrete works, formworks & scaffolding, masonry works, doors, windows and glass walls, iron & steel works, finishing works electrical works, plumbing works & drainage system, carpentry works, roofing works, painting works, movable basketball ring and scoreboard, parking facility and bleacher seats.

A. MATERIAL SPECIFICATIONS

A.01 GENERAL REQUIREMENTS

Temporary Facility: Located at strategic area nearby the project site
PPE: Hard hat, protection glasses (clear glass during night works), safety shoes, working gloves
Permits: Building permit and occupancy permit
Project Sign Board: Tarpaulin
Material Testing: To be done by approved independent laboratory
As-Built Plans: 1 original + 3 copies (A3 size)

A.02 SITE WORKS

Demolition works: Manual and/or mechanical as approved by Project's TWG

A.03 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.04 REINFORCED CONCRETE WORKS

Cement: Portland Type 1, 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.05 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.06 MASONRY WORKS

CHB: 6" thk minimum strength = 2.5 Mpa (exterior walls)
4" thk minimum strength = 2.5 Mpa (interior walls)
Mortar Mix:
- By volume :
(a) CHB laying 1 cement = 3 sand
(b) Tool joint finishing 1 cement = 2 sand
(c) Plastering 1 cement = 2 sand
Cement: Portland Type 1 or Type 1P, ASTM C150, 40 kg per bag
Plastering Works: Minimum thickness is 1/2"
Washed Sand: Cleaned, screened properly graded, washed
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.07 DOORS AND WINDOWS

Main Door: Double leaf, heavy duty metal door with glazing window and panic hardware
Solid Panel Door: Good lumber
Opening outwards

Glazing Window:	1/4" thick glass
Door Jamb:	Must be aged lawa-an, mahogany, acacia mangiums or equivalent and free from any defects. Must be treated with anti-termite chemicals.
Door Knob:	Stainless, lever type
Toilet Cubicle Doors	Toilet wooden flush door with toilet lock indicator (vacant/engaged)
Windows:	Sliding window in analok frame w/ 1/4" thick glass

A.08 IRON AND STEEL WORKS

Ramp Handrails & Railings : SS Pipe 2" and 1" Ø Sch. 20

A.09 FINISHING WORKS

Floor finishes:	Wood tiles (basketball court) 600mm x 600mm porcelain floor tiles (offices) 600mm x 600mm unglazed tiles (CR floor)
Wall Finishes	600mm x 600mm glazed tiles (CR wall) 600mm x 600mm exterior decorative tiles 600mm x 600mm interior decorative tiles (stage area)

A.10 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

A.11 PLUMBING WORKS AND DRAINAGE SYSTEM

Sewer Lines:	PVC pipes, G.I. Pipes or equivalent
Water Lines:	PPR Pipes
Toilet:	Flush type water closet, lavatory, urinal, soap holder, mirror and other accessories
Deep well:	Deep well for water system must be located away from septic vault tank for at least 20m radius
Slope:	2%

A.12 CARPENTRY WORKS

Ceiling:	1/4" thick marine plywood on metal furring
Partition wall:	Double walling partition (hardiflex in metal studs)

A.13 ROOFING WORKS

Trusses:	Fully weld
Angle Bars:	1/4" thickness varied sizes
C-Purlins:	50mm x 100mm x 2.0mm
Roof Sheet:	Ga.#26 ordinary corrugated pre-painted long span roof sheets, Blue color

A.14 PAINTING WORKS

Concrete/masonry:	Latex in skim coat finish
Stage Floors:	Slip resistant paint
Wood Tiles:	Epoxy paint

A.15 MOVABLE BASKETBALL RING AND SCOREBOARD

Basketball ring:	Fiberglass board
Scoreboard:	Digital score board

A.16 BLEACHER SEATS

Seats with backrest:	High Density Polyethylene (HDPE) W400×D460×H315mm
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B. WORKMANSHIP

B.01 General Requirements

- Temporary facilities shall be located at strategic area nearby the project site. Protection fences be properly installed for safety of by-passers and visitors. Material testing must be done by approved independent laboratory. Workers shall be fully equipped with proper PPE's as a general safety requirement.

B.02 Site Works

- 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.

B.03 Earthworks

- Excavation** - Excavation must be 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.
- Backfilling** - Unsuitable/unwanted materials shall be removed before any backfilling works may proceed.

Excavated materials can be used as backfill material. Compaction shall be done at every 0.30 meter thickness of backfill. Discard excavated material with diameter greater than 4". Dispose excess material within 20m radius or 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. Concrete must be water cured for at least seven (7) days.

B.05 Formworks and Scaffolding

- 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.06 Masonry Works

- All openings shall have lintel beams above that extends 0.20 m on both sides. Only concrete hollow blocks in good condition and form shall be installed with correct alignment and elevation. Plastering 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.

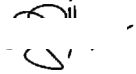
B.07 Housekeeping

- 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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