



Republic of the Philippines
DEPARTMENT OF AGRICULTURE
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SCOPE OF WORK AND SPECIFICATIONS

PROJECT NAME: EXTENSION OF FULGOSINO SWIP CANAL LINING
LOCATION: Fulgosino, Umingan, Pangasinan
PROJECT DESCRIPTION: Construction of reinforced concrete flume, main canal, lateral canal and installation of project marker (0.80m x 0.70m x 120 linear meters flume, 0.80 x 0.70 x 70m concrete main canal, 0.50m x 0.50m x 1,500m concrete lateral canal.
AMOUNT: Php 3,922,600.25


GENERAL PROVISIONS	
<p>The contractor/implementer of the project shall verify all dimensions and conditions of the site and shall notify the DA Project Engineer for any discrepancies between actual conditions and information shown in the drawing before proceeding with the work.</p> <p>The structural drawings and specifications represent the general framework of the structure. They do not indicate methods of construction, unless so stated, the contractor/implementer shall provide all necessary measures to protect the structure, the contractor/ implementer's obligation to notify the DA Project Engineer of any conditions that may endanger the stability or cause distress in the structure during phases of construction.</p> <p>This set of specifications shall govern the methods of construction and kinds of materials to be used for the proposed Project shown on the accompanying plans and detailed drawings.</p> <p>All parts of the construction shall be finished with first class workmanship to the fullest talent and meaning of plans and the specifications, and to the satisfaction of the Department of Agriculture through its Project Engineer. Any defective material or poor workmanship should be replaced or improved by the contractor without additional cost to the owner.</p> <p>All other materials specifically indicated and illustrated on plans shall be taken as part of this specification regardless whether or not written and such other materials shall be approved by the owner before they are set in place.</p>	
DESCRIPTION	
I. MOBILIZATION AND DEMOBILIZATION	
<ul style="list-style-type: none">The work consists of the mobilization and demobilization of the contractor's personnel, equipment and construction supplies to the site necessary for performing the work required under the contract.All roads, culverts, sidewalks, structures, etc. shall be protected from damages by the equipment. <p>Minimum Equipment Requirement:</p> <ul style="list-style-type: none">1 Backhoe (0.8 cu.m.)1 Bar cutter1 Bar bender1 Concrete Bagger MixerHand tools	
II. PROVISION OF SAFETY AND HEALTH PROGRAM	
<p>Construction workers must be oriented, instructed and trained by the construction project manager to assure safe handling of equipment and of disposing waste. All employees must have protective equipment for the eyes, face, feet and all crucial body parts when exposed to hazardous work procedures.</p> <p>A safety officer is required onsite for every ten units of heavy equipment to ensure proper handling.</p>	

III.	TEMPORARY FACILITY
	<p>The contractor shall install/construct temporary facilities to expeditiously execute the work and shall remove them from the site when no longer required.</p> <p>The contractor shall obtain temporary and maintain in good condition a supply of potable water for construction use.</p> <p>The contractor shall install temporary electric services with sufficient capacity to supply proper current for various types of construction tools, motors, welding machines, pumps, testing, and other work required.</p>
IV.	CLEARING
	<ul style="list-style-type: none"> • The building site shall be levelled according to the plans and cleared of rubbish, roots and other perishable and objectionable matters to a suitable subgrade. • All such unsuitable materials shall be removed from the building site and spread uniformly over the areas adjacent to the proposed building, or otherwise disposed of as maybe directed by the Architect or Engineer in charge of the construction. • The building lines shall be staked out and all lines and grades shown in the drawing established before any excavation is started. Batter boards and reference marks shall be erected at such places where they will not be disturbed during the excavation of the building. • All vegetation and debris within the limits of construction, except as designated to remain, shall be cleared, grubbed, removed, and disposed of. All vegetation and objects to remain shall be protected.
V.	EARTHWORKS
	<ul style="list-style-type: none"> • The contractor shall make all necessary excavation for foundations to grade indicated on the drawings. Work that is excavated to a greater extent than required by the drawings and specifications and which is within the bearing area of walls, footings, or floor slabs shall be filled structural specifications. The building foundation shall be staked out accurately, after which, approval by the Architect/Engineer shall be secured before any excavation work is done. The Contractor shall secure the surrounding properties from all forms of damage and destruction caused by the excavation. • NO FOUNDATION shall rest on fill. All excavation shall be done with the proper allowances for floor slabs. All excavation shall be done with the proper allowances for floor slabs, forms and centers. • Bottom of foundation shall be approximately level, clean and clear of loose materials and lower sections true to size. All roots, stumps, organic materials and weathered rocks shall be removed and the cavities cleaned and filled with well-compacted sand and gravel. • SOIL BEARING capacities of foundation shall be as specified by the Structural engineer. Should the soil at the proposed level of footing bases be found not capable of resisting said pressure, • The Architect or the Structural engineer or Project Engineer, shall be notified and they shall revise foundation details as required. • Upon completion of foundation no steel reinforcement shall be installed and concrete shall be poured until the contractor has approved the soil for each individual footing. Further supervisions for any indication of weak soil conditions before placing steel reinforcements and concrete. • After concrete for foundations is hard enough to withstand pressure resulting from fills, the materials removed from excavations shall be used for backfill around them. Backfill and fills shall be placed in layers not exceeding 150mm in thickness, and each layer shall be thoroughly compacted by wetting, tamping and rolling.
VI.	RSB WORKS
	<ul style="list-style-type: none"> • All reinforcement shall be placed in accordance with plans furnished by the Engineer. In case of any doubt or ambiguity in placing of steel, the Contractor shall consult the Engineer whose decision shall be final in such cases. • Steel reinforcing bars to be used for this project shall consist of standard deformed structural bars meeting ASTM specifications. All reinforcement shall be placed in accordance with plans furnished by the Engineer. • The steel reinforcements for concrete shall be formed accurately according to the sizes of footings, inlet works, pump house and sump, etc., where they are to be used. They shall be tied together at each bar intersection with Gauge No. 16 G.I. wire or by welding. • All main reinforcing steel used in the structure shall conform to ASTM Grade 40 (Intermediate Grade) with yield strength of 40 ksi (276 MPa). • All temperature bars shall conform to ASTM Grade 33 Structural Grade with minimum yield strength of 33 ksi (230 MPa). • Always apply red oxide for the exposed RSB to eliminate rusting. • All hooks shall be in accordance with all standard hooks and anchorages specified in ACI 318-83 Building Code.

VII. CONCRETE CLASS A WITH FORMS
This covers all the materials as cement, aggregates, water, reinforcing steel bars, admixtures and proportioning, mixing, transporting, placing, finishing, curing and protecting of concrete, including supplies, equipment, tools and all other incidentals necessary for concrete works.
VIII. CONCRETE CLASS A WITHOUT FORMS
This covers all the materials as cement, aggregates, water, reinforcing steel bars, admixtures and proportioning, mixing, transporting, placing, finishing, curing and protecting of concrete, including supplies, equipment, tools and all other incidentals necessary for concrete works.
IX. PROJECT MARKER
Marker shall be clearly identified with the project type. Component of marker shall show no greater deterioration in physical condition, color change or fade and shall be in accordance with the dimension and shapes specified in the plan.

The above specifications are intended for the **Extension of Fulgosino SWIP Canal Lining** located at **Barangay Fulgosino, Umingan, Pangasinan.**

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