PROJECT TITLE : PROPOSED CONSTRUCTION/IMPROVEMENT OF MEZ TEMPORARY OFFICE AT AAI BUILDING

LOCATION : BRGY. IBO, MEZ 1, LAPU-LAPU CITY

TECHNICAL SPECIFICATIONS

I. MATERIALS SPECIFICATION

A. All structural steel shall conform to ASTM A36 Steel.
B. Painting of new structural surfaces
   a. One coat rust converter
   b. Two coats of Epoxy Red Oxide Primer
   c. Boysen paint shall be used; one galloon shall cover 250 sq.ft.
C. Concrete shall be of class "A" (1:2:4 mix); shall attain a minimum compressive strength of 3,000 psi in 28 days.
D. Plastering mortar (10mm thk. Minimum) shall be of 01 part cement to 02 parts screened sand work to finish.
E. Reinforcing bars shall be specified in the approved drawings.

II. SITE PREPARATION AND CONCRETE WORKS

A. Site Preparation

Project Engineering will establish the desired elevations and will monitor the building foundation layout.

B. Excavation

The proposed site shall be excavated according to the outline of the structures footing as shown on the plans or as established by Project Engineering; shall be of sufficient sizes to permit the placing and subsequent removal of side forms where necessary. Excavations shall be protected that these do not endanger life or property.

C. Concrete Works and Concrete

Concreting involves primarily the pouring of the reinforced concrete footings and pedestal. Portland cement shall be used. Concrete proportions shall be of class "A" (1:2:4 mix). Concrete shall attain a minimum compressive strength of 3,000 psi in 28 days.

Washed sand shall be used; shall have the approval of Project Engineering as to quality.

Gravel shall be of acceptable quality, ¾"diameter minimum.
PEZA-MEZ reserves the right to reject materials not suited for the construction Disapproved materials shall immediately be hauled away from the construction site at the expense of the contractor.
Structural footings shall be reinforced and constructed as per approved drawings and specifications.

D. REINFORCING BARS

Deformed reinforcing bars shall be used for footings and pedestals. Sizes shall be as designed as shown on the approved plans. Reinforcing bars shall be kept clean and free from rust, straight and free from distortion, place and held in position as indicated.

E. FORMS

Forms shall be approved type; shall be straight and free from warp and bends. Forms shall be constructed of sufficient strength to withstand pouring forces and vibrations. Wooden and/or steel forms shall be used and shall be set exactly to the required alignment and grade as shown on the approved plans or as determined by Engineer at the construction site.
Forms shall be removed in such a manner as to ensure the complete safety of the structure.

F. CURING AND PROTECTION OF CONCRETE

As soon as the concrete has sufficiently set, to prevent the marring of the surface, the pavement shall be cured by either:

a. Covering with wet burlap or canvass, which shall be kept wet for a period of five (5) days with clean water.
b. Covering with a layer of sand, which shall be kept wet for a period of 5 days.

III. STRUCTURAL STEEL AND METAL WORKS

A. STRUCTURAL STEEL

Description

The work under this section shall consist of furnishing all labor, tools, materials, construction plant, and other items necessary to provide structural steel as covered herein and set forth on the drawing.

Compliance with Quality Requirements

The contractor is required to furnish a mill certificate from the steel manufacturer certifying that these materials meet the requirement specified herein. The contractor is also required to submit sample of materials for approval before fabrication as follows:

a. For all steel pipes 30 centimeters long
b. Steel Plates 50mm x 50mm square
c. Deformed bars 1.00 meter long
d. Channel Section 30 centimeters long
e. Welding electrode 01-pc per box

Materials

Materials shall conform to the respective requirements specified herein as shown:

a. Structural steel shall conform to ASTM A-36
b. High strength bolts, including nuts and washers shall be ASTM 325
c. Welding Electrodes and rods shall conform to AWS A5.1

Storage and Protection

Materials shall be delivered, stored, handled and installed in manner to protect these from damage during the entire construction period.

Fabrications

a. Fabrication and assembly shall be done in the shop to the greatest extent possible. All materials shall be cleaned and straight. If straightening or flattening is necessary, it shall be done by a process and in a manner that will not damage the materials.
b. Shearing, flame cutting shall be done carefully and accurately. Flame-cut edges of members shall have all nicks removed. Holes shall not be enlarged by flame-cut. Gas cutting shall be done by the use of a mechanically guided torch.
c. Welding on structural steel works shall be done in accordance with the standards of American Welding Society AWD Code D.1. Welding works shall only be performed by certified welders.
d. Bolted connections: Holes for bolts shall be 1.5mm larger than the nominal diameter of the bolt. Holes shall be cleaned cut without torn or rugged edged. Bolt holes shall be at right angles to the member. Bolted parts shall fit solidly together when assembled and shall not be separated by gaskets or any other interposed compressible materials. Contact surfaces within frictions type joints shall be from oil or paint.
e. Match markings. Members and component parts of structure shall be matched marked to ensure accurate assembly and erection.
f. All structural steel work shall be painted, 01 coat rust converter and 02 coats epoxy primer).
g. All welded portions shall be inspected and approved by the Project Engineer.

Erection

a. Erection shall be in accordance with the applicable specifications and standards of the AISC Steel Manual.
b. Anchorage: Anchor bolts and other connections between the structural steel and foundations shall be provided and shall be properly located and built into the connecting work.
c. Structural Steel Paintings: All exposed surface of steel works shall be painted. Surfaces where the coat has been damaged shall be retouched using the same system as the original painting.

IV. CARPENTRY AND JOINERY WORKS

Unless otherwise specified, the Contractor shall furnish all materials, tools, equipment and labor required for the completion and satisfactory performance of work in strict compliance with this specifications and plans/drawings.

Lumber shall be of approved quality of the respective kinds required for the various parts of the work, well-seasoned, thoroughly dry and free from large, loose or unsound knots, cracks and other imperfections thereby impairing its strength, durability and appearance

Framing lumber shall be of rough dimensions. All exposed woodwork shall be smoothly dressed and well sandpapered. All joints and connections shall be glued and nailed.

Rough lumber for framing and siding boards shall air dried or sun dried. Dressed lumber for exterior and interior finishing, for doors and windows, cabinets and flooring boards shall be kiln dried.

Plywood shall conform to the requirements of the Philippine Trade Standards 631-02.

V. PAINTING

All types of paint material, varnish and other related product shall be subject to random tests as to material composition by the Owner.

Paint to be used shall be as specified by the Owner.

Tinting colors shall be first grade quality. Use same brand of paint and tinting color to effect good paint body.

Prior to application of paint, for new interior and exterior walls, apply surface to be painted with concrete neutralizer diluted with water.
Glazing putty shall be alkyd type product for filling minor surface unevenness.

VI. PLUMBING WORKS

This work shall consist of furnishing all labor, tools, equipment and materials necessary to complete installation, testing and operation of the plumbing system in accordance with the specifications and all applicable drawings.

VII. ELECTRICAL WORKS:

All electrical installations indicated on the Plan shall conform with the Latest edition of the Phil. Electrical Code, rules and regulations of Local and
National Authority concerned in the enforcement of the Electrical Laws,
Municipal Ordinances and Government a gencies having jurisdiction over the Project.

All electrical materials and equipment be used in this project shall be new And approved type for both location and purpose they intended.

All electrical installations shall be done under the direct supervision of a Duly licensed Electrical Engineer or Master Electrician.

VIII. MECHANICAL WORKS:

All mlectrical installations indicated on the Plan shall conform with the Latest edition of the Phil. Mechanical Code, rules and regulations of Local and National Authority concerned in the enforcement of the Laws, Municipal Ordinances and Government agencies having jurisdiction over the Project.

All mechanical installations shall be done under the direct supervision of a Duly licensed Mechanical Engineer.

IX. CLEARING OF THE CONSTRUCTION SITE:

Excavation void and construction gaps around the structure shall be filled and compacted. The area shall be left cleared and cleaned every end of the day and after the completion of the contractual work. All construction debris and waste materials and any materials not suited for the construction shall be hauled to the designated area. Dumping of waste and debris inside the zone is strictly prohibited.

X. OTHER REQUIREMENTS:

The contractor will be required to field out one full time Civil Engineer to supervise this particular project and to look after the safety of the workplace and the workers. The contractor will be required to submit together with their Bid Proposal a PERT CPM of the Project and/or Gantt chart.

Prepared by:

MEZ-EMD