

ITEM 26 : FIRE PROTECTION SYSTEM**Part 1 GENERAL CONDITIONS**

This section applies to all Item of "FIRE PROTECTION SYSTEM" except where specified in each individual section.

1.1 STANDARDS, REGULATIONS, CODE OF PRACTICE, ORDINANCES PERMITS AND FEES

- A. The work covered in this contract shall conform to the specifications, standard codes, ordinances issued by the authorities, and requirements of the following:

PD 1185	-	Fire Code of the Philippines
NFPA 13	-	Automatic Sprinkler System Installation (Latest Edition)
NFPA 14	-	Standpipe and Hose System (Latest Edition)
NFPA 20	-	Fire Pump Installation (Latest Edition)
NFPA 101	-	Life Safety Code
NFPA 2001	-	Clean Agent Extinguishing System
ASTM	-	American Society of Testing Materials
ASME	-	American Society of Mechanical Engineers
NBS	-	National Bureau of Standards
UL	-	Underwriter's Laboratory, Inc.
FM	-	Factory Mutual

Fire Department Ordinances of Concerned City and Municipality (BFP)

- B. All construction permit and fees required for the work shall be obtained by and at the expense of the Contractor. The contractor shall furnish the Architect, the Engineer and the Owner final certificates of inspection/ permits and approval from the proper government authorities after the completion of the work.

1.2 SCOPE OF WORKS

The Contractor shall furnish all materials, equipment, tools, labor and services necessary for the complete installation of Automatic Fire Sprinkler System in strict accordance with the technical specifications and drawings, complete and ready for use.

The work essentially shall include, but shall not necessarily be limited to the following items:

1. Sprinkler System for the floors as shown on the plans
2. Furnishing and installation of instruction boards, charts, sign and markers.
3. Priming and finish painting (red) of all exposed piping and all equipment except for the sprinkler heads.
4. Securing and payment of permits, licenses for construction purposes, including approval from Fire Department having jurisdictions.

5. Complete testing of the Fire Protection System in accordance with NFPA-13 and NFPA 2001.
6. Furnish the Owner a written guarantee covering the satisfactory operation of the fire protection system installation in all its parts for a period of one (1) year after date of final acceptance of work. During this period, repair or replace any defective work, materials or equipment furnished and installed without any cost to the Owner. Include with this guarantee certificate of every material supplier engaged by this trade of the project.
7. Submission of as-built drawings in reproducible sheets.

1.3 SUBMITTALS, DOCUMENTS AND DRAWINGS

- A. Dimensional layout of all pumping system, piping layout and sensing piping arrangement, fire hose cabinet connections, pipes and fittings materials, hangers and supports, etc.
- B. Manufacturer's catalog, product data for the following:
 - a. Spinkler Heads, flow characteristics, mounting and finish
 - b. Field test reports and Certificates
 - c. Maintenance Data
 - d. List of miscellaneous materials proposed, including pipe, fittings, valves, etc. and manhole accessories, identifying manufacturer and type.

1.4 ACCEPTANCE TESTS

- A. Acceptance of the work shall be conditioned on successful tests of the entire system.
- B. Test requirement laid out in the standards for the installation of sprinkler system NFPA-13 shall be performed prior to the approval of the work
- C. Isolated leak tests or partial tests of areas may be performed prior to installation of ceiling materials in the area to preclude any damage there at during total system final tests.
- D. The contractor shall furnish the owner a written statement to the effect that the work covered by the contract has been completed and tested, before requesting for final approval of the installation by the Fire Department Authority.

1.5 WORKMANSHIP AND COORDINATION OF WORK WITH OTHERS

- A. The Contractor shall be held fully responsible for the work of any manufacturer or sub-contractor supplying materials to or performing work for; as it is intended that the entire Fire Protection System shall be ready in every respect for satisfactory and efficient operation when finally delivered to the Owners.
- B. The contractor shall assume full responsibility and shall provide the services of a qualified Engineer to supervise the complete installation of equipment and to conduct the final acceptance tests.

- C. The work throughout shall be executed in thorough and satisfactory manner in accordance with the best practices of the trade.

1.6 STANDARD PRODUCTS/SERVICE AVAILABILITY

A. Materials and Equipment

Materials and equipment shall be standard products of manufacturer regularly engaged in the manufacture of such products, which are of a similar material, design and workmanship. The standard products shall have been in satisfactory commercial or industrial use for seven years prior to bid opening. The seven year use shall include applications of equipment and materials under similar circumstances and of similar size as specified for the Project. The equipment shall be soled exclusively by a single, stable distributor with after sales capability.

B. Experience Required

The five (5) years experience must be satisfactorily completed by a product which has been sold or is offered for sale on the commercial market through advertisements, manufacturers' catalogues, or brochures.

C. Alternative Service Record

Products having less than a five-year field service record will be acceptable if a certified record of satisfactory field operation for not less than 6000 hours, exclusive of the manufacturer's factory or laboratory tests can be shown.

D. Service Record

The equipment items shall be supported by service organizations. The Contractor shall submit a certified list of qualified permanent service organizations for support of the equipment which includes their addresses and qualifications. These service organizations shall reasonably be convenient to the equipment installation and able to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

E. Manufacturer's Nameplate

Each item of equipment shall have a nameplate bearing the manufacturer's name, address, model number, and serial number affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable.

1.7 QUALITY ASSURANCE

A. Surveys and Measurements

- a. The Contractor shall base measurements, both horizontal and vertical, from established benchmarks. All work shall agree with these established lines and levels. Verify all measurements at site and check the correctness of same as related to the work.

- b. Should the Contractor discover any discrepancy between actual measurements and those indicated, which prevents following good practice or intent of the drawings and specifications, he shall notify the Owner's representative and shall not proceed with his work until he has received instructions from the Owner's representative upon referring the matter to the Engineer.

B. Drawings and Minor Modification

- a. Drawings are diagrammatic and indicate the general arrangement of the system and work included in the contract. Drawings are not to be scaled. The drawing and details shall be examined for exact location of fixtures and equipment by verifying actual site conditions.
- b. The Contractor shall follow drawings in laying out work and check drawing of other trades to verify spaces in which work will be installed. Maintain maximum headroom and space conditions at all points. Where headroom or space conditions appear inadequate, Owner's representative shall be notified before proceeding with installation, if directed by the Owner's representative, the Contractor shall, without extra charge, make reasonable modifications and the layout as needed to prevent conflict with work of other trades or for proper execution of the work.

c. Materials and Workmanship

All materials and apparatus required for the work, except as specified otherwise, shall be new of first class quality, and shall be furnished, delivered, erected, connected and finished in every detail, and shall be so selected and arranged as to fit properly into the building spaces. Where no specific kind or quality of materials is given, first class standard article shall be furnished

PART 2 PRODUCTS

2.1 MATERIALS

- A. Materials and equipment shall conform to the respective publications and other requirements specified herein.

2.2 FIRE PUMP

- A. The system shall Consist of One(1) unit of UL Listed, FM approved Vertical Turbine Fire Pump. The Necessary attachments specified herein shall be capable of delivering 150% of rated capacity at no less than 65% of total head. The Fire pump shall deliver a capacity as shown on the plans. The Motor drive shall be an induction motor of ODP type with an electrical characteristic as shown on the drawings.

B. Accessories:

- a. Check valve in discharge pipe and suction strainer.
- b. OS&Y gate or butterfly valves on system discharge side of check valve and on supply side of pump.

- c. Piping for test and drain to water tank.
- d. Flow measuring device.
- e. Circulation relief valve and discharge cone.
- f. Automatic air release, valve and fittings.
- g. Primary Connect
- h. Capacity Plate
- i. Pressure Switches
- j. Water level testing device and piping.
- k. Eccentric Reducer and Concentric Increaser
- l. Pressure Gauges.

C. Drive

a. Motor:

Motor horsepower rating shall be in accordance with the manufacturer's requirements. The motor shall be of capacity that 115% of the full load ampere rating shall not exceed at any condition of pump load.

D. Controls:

- a. Controller: Hand-off automatic switch, fire water pressure switch to operate pump drive, fire water pressure switches for alarms.
- b. Local alarm with indicating lights for low fire water pressure and high water pressure.
- c. Alarm for low water level and no water at u/G Fire water tank.
- d. Contacts for remote circuits to indicate pump operational status and alarm status.

2.3 JOCKEY PUMP

- A. Jockey Pump shall consist of one(1)unit, electrically driven submersible type pump. The Jockey pump shall deliver a capacity as shown on the plans, complete with controller and necessary accessories.
- B. Provide shut-off valves, check valve, and relief valves and Jockey Pump controller, with across the line controller with fusible disconnect switch, motor starter, timer, fuses, pressure switch, selector switch, over-load relays, enclosure to be in NEMA 4 enclosure. Additional feature to have pressure recorder, power on pilot light.

2.4 SPRINKLER HEADS

A. Type:

Automatic, Standard 15mm diameter orifice, frangible bulb type, upright, pendent or sidewall heads. Pendent heads shall be provided with aluminum escutcheon or approved equivalent to fit into ceiling boards or ceiling runners, flush or concealed type pendent units shall be accepted as substitute. Heads shall be UL Inc. Or FM approved, of one brand all throughout and shall be standard product of a reputable manufacturer. Similar to existing.

B. Head Rating and Type:

Office Areas (Pendent/Sidewall Type)	135 to 165 deg F chrome Plated	(for use in max. ceiling temp of 100degF)
---	-----------------------------------	--

Pipe Thread and Valve Seat- 15mm diameter nominal

C. Furnished spare heads as required in the code and maintenance service part list for a period of at least one(1) year reckoned from the date after termination of warranty.

2.5 PORTABLE FIRE EXTINGUISHERS

A. Furnish and install as indicated portable fire extinguisher, wall hung or wheeled extinguishers of the type, rating and size as shown in the drawings. Units shall be approved by the Fire Department having jurisdiction.

2.6 PIPES AND FITTINGS

A. Where American Standards are specified, other approved national or local standards may be acceptable, provided copies of these standard Specifications are forwarded to the Engineer for his written approval.

B. Black iron, schedule 40 pipes, ASTM A-53 for pipe sizes 150mm diameter and above only (wet and dry).

Black iron, schedule 40 pipes, ASTM A-120 for inside building installations (feed mains, cross mains and branch lines).

C. Sprinkler system fitting shall be extra heavy pattern. Whenever a change in pipe size is made, one piece of reducing fitting shall be used. Provided mechanical grooved couplings at riser pipes of every floor.

D. All fittings shall be malleable iron fittings, ASTM-47

E. Steel pipe flanges mating with steel equipment flanges shall have the same facing as mating flange.

F. Screwed union shall not be used on pipes larger than 50 mm (2"). Coupling and unions of pipes other than screwed type shall be of types approved specifically for sprinkler used.

2.7 SWAY BRACES, HANGERS AND SUPPORTS

A. Sway Bracing: Steel flat bars, Structural grade 7mm minimum thickness, with corrosion protection; shape / type as shown on plans.

B. Pipe Hangers: Steel flat bars, Structural grade 7mm minimum thickness, with corrosion protection; shape / type as shown on plans and 13mm diameter bars with corrosion protection as shown on plans.

2.8 PIPE SLEEVES

A. Materials:

- a. Through fittings – cast iron
- b. Below grade – cast iron or standard weight iron pipe.
- c. Above grade – steel pipe

2.9 MARKERS, INSTRUCTION AND IDENTIFICATION SIGNBOARD

- A. These signboards shall be made of gauge no. 14 black iron sheet with baked enamel finish and letter instruction as shown on plans. Additional signboards shall be mounted on the unobstructed for easy identification reading. Paints shall be basically gloss fire red and white.

2.10 ACCESSORIES

- A. Alarm Check Valve: U.L. listed, divided seat ring type alarm check valve with external bypass and retarding chamber. Basic trimmings shall include nipples, fittings, devices for external bypass, alarm test bypass gauge and drain connections, and mounting supports for retarding chamber and drip funnel. Standard alarm trimmings shall be provided for use with and including water motor alarm and a pressure switch.
- B. Flush Fire Department Connection: For sprinkler system double clapper flush wall connection type, straight body connection, 6" x 2-1/2 x 2-1/2 x 2-1/2" (150 x 65 x 65 x 65) with pinlug plugs and chains, double female snoots, exposed parts with polished brass finish, threads to conform to those used by local fire department.
- C. Check Valve: Shall be of the swing check type, with iron body, bronze mounted, renewable seat and disc, bolted cap, asbestos gaskets. Steel bolts, 175lbs.(1225Kpa) water working pressure, flanged ends with drip connections.
- D. Gate Valves: Shall be iron body with bronze trim, solid wedge, outside screw and yoke, rising stem, flanged ends, 175 lbs. (1225Kpa) water working pressure. Valves at the discharge side of pumps shall be Class 200.
- E. Monitor Switch: U.L listed, single pole double throw switch with a roller type switch actuator and a spring-loaded plunger mounted in a housing, design to make an electrical contact when O.S. &Y. Control gate valve at sprinkler main riser is closed.
- F. Hose Valves: 65 dia. (2.5"), (65mm) polished brass finished, female & male hose threads to match local fire department equipment.
- G. Roof manifolds: Cast brass with female N.P.T, inlet and male N.P.T. outlet, two-way, 150 x 65mm, back inlet.
- H. Pressure gauges and ball drip valves 2.5" NPT, bronze and cocks shall be as provided.
- I. Inspector's test and drain valve shall conform to the minimum requirements of the latest edition of NFPA 13.

2.11 FIRE HOSE CABINETS

- A. Cabinet shall be recessed 16-gauge steel body, annulux finished aluminum door trim with pull handle and friction catch with lock key. Cabinet shall be designed for 100ft. hose pin rack and fire extinguisher. Door shall be full panel glass. Cabinet finish shall be powder coated white inside with prime coat outside. Cabinet maybe locally of approved quality. Provide " Break glass in case of Fire" sign.

Accessories:

- a. Pin rack for fire hose cabinet shall be semi-automatic type, baked enamel finish designed for 100 ft. or 1.5 " hose and furnished with 1.5" chrome plated brass rack nipple
- b. Fire hose for fire hose station shall be 100 ft. of 1.5' cotton double jacket flexible fire hose. Hose coupling shall be 1.5" chrome plated male-female National standard hose threads. Nozzle shall be approved by UL/FM.
- c. Provide one (1) unit 10lbs portable fire extiguisher labeled with UL/FM.

PART 3 EXECUTION**3.1 INSTALLATION**

- A. Unless otherwise indicated or specified, all materials and equipment shall be installed in accordance with the manufacturer's recommendation and in accordance with NFPA 13. Cutting structural members for passage of pipes and pipe hangers fastening will not be permitted. The system shall be installed by an experience firm regularly engaged in the installation of fire protection sprinkler system in accordance with NFPA Standards.

3.2 PIPE AND FITTINGS

- A. Pipe used shall not be subject to a working pressue in excess of 25% of the hydrostatic pressure test required by ASTMA-53
- B. All soide piping shall be installed by means of screwed or flanged fittings. Flanged joint shall be used at all sprinkler risers and provided with 1.6mm thick long fiber asbestos, cross-laminated gasket.
- C. Torch cutting shall not be permitted as means of modifying sprinkler system
- D. All welding shall be "shop welding" only and shall be done by electric arc welding process/
- E. Special couplings, grooved couplings, and flexible connecting approved for use in sprinkler system may be used in place of unions and flanged connections where applicable.
- F. Fittings for aboveground piping shall be of the type specifically approved for use un sprinkler system. Bushings shall be used only where standard fittings of the required

size are not available. The use of bushings is further restricted to requirements of NFPA 13.

- G. Reductions in pipe sizes shall be made with one piece reducing fittings. Single bushings of the face type will be permitted. Where used, face bushings shall be installed with the outer face flush with the face of the fitting opening being reduced. Bushings shall be not used in elbow fittings, in more than one outlets of a cross, or where the reduction in size is less than ½ inch.
- H. The recommended methods and requirements for supporting of hanging pipe, as set forth in NFPA 13 shall be mandatory.
- I. Escutcheons shall be provided at all finish surfaces where exposed piping passes through floors, walls, or ceiling. Escutheons shall be fastened securely to pipe and shall be chromium-plated iron or chromium plated brass, either one-piece or split pattern, held in place by internal spring tension or set screw.
- J. Protection of piping against earthquake damage shall be provided. Methods of protection shall be in accordance with applicable requirements of NFPA 13 and Appendix A with the exception that the "Earthquake Zone" map of appendix A shall not apply to this project.

3.3 PIPES SLEEVES

- A. Pipe passing through concrete or masonry walls or concrete floors shall be provided with pipe sleeves fitted into place at the same time of construction. Each sleeve shall extend through its respective walls or floor and be cut flush with each surface. Sleeves in bearing walls, waterproofing membrane floors, and wet areas shall be steel pipe or cast iron pipes. Sleeves in non-bearing walls, floors, or ceiling may be steel pipe, cast iron pipe, or galvanized sheet metal with lock-type longitudinal beam.
- B. Minimum clearance between the pipe and sleeve shall not be less than 25mm(1") for pipes, 25mm(1") to 89mm(3-1/2") and 50mm(2") clearance between pipes 100mm(4") and larger. The clearance between pipes and sleeves shall be filled with non-combustible flexible materials such as asbestos rope and furnished with semi-hardening mastic flush.
- C. Floor sleeves shall extend at least 76mm(3") above the top of the wearing surface.
- D. Drains, fire department connections, test manifolds and other auxiliary piping connected to risers shall not be cemented into walls or floors.

3.4 SWAY BRACES, HANGERS AND SUPPORTS

- A. Sway Bracings Installations:
 - a. Adequate sway bracing shall be provided to oppose longitudinal or transverse pipe movements. Lateral bracings shall withstand a force equal to 50% of the weight of the water contained in piping, valves and fittings.

- b. Piping anchorages shall not be secured on two (2) dissimilar parts of the building, which will move differently.

B. Hangers Installation:

- a. Approved inserts may be used for the support of hangers, anchorage in concrete. Expansion shield should be used in as horizontal position on the sides of concrete beams and shall be above the bottom reinforcements.
- b. Increase couplings shall be attached immediately adjacent to the expansion shields.
- c. When pipes 100mm diameter and larger are supported in the vertical position, the supports shall be at a minimum spacing of 3.0meter (10') on center. Holes in concrete for expansion shield shall be made of the proper size and depth, as specified for the type of shield used, to provide a uniform contact with the shield over its entire length and circumference.
- d. Maximum distance between hangers shall be 3.65 meters(12') for 25mm(1"). Provide at least one hanger for each length of branch line, one between each two cross main branches, one hanger for each 4.75meters(15') length of feed mains. The distance between the hanger and the centerline of upright sprinkler shall be not less than 76mm(3").

3.5 PIPE PAINTING

- A. Sprinkler heads, valve stems and the like shall not be painted.
- B. After installation and test and before the installation of ceiling fixtures or boards, all piping shall be prime painted and coated with two coats of gloss red quick drying enamel.

3.6 ACCEPTANCE TESTS

- A. The contractor shall conduct tests in the presence of inspector of authority having jurisdiction.
- B. To remove foreign materials, which may have entered the piping during installation of it, flushing or underground connection is required before sprinkler piping is connected
- C. Hydrostatic Tests.
 - a. Test Pressure not less than 200 psi on system pressure plus 50 psig for two hours.
 - b. No visible leakage for inside sprinkler piping will be allowed. For underground mains and laid-ins, exceeding the permissible leakage or joints necessary repair shall be made.
 - c. All control valve water pressure to insure proper operating tests. Use clean, non-corrosive water.

- d. Fire connection shall be tested.
- D. Testing of drainage facilities shall be made by opening the main drain valve while the control valve is wide opens.
- E. Test certificate shall be filled out and signed by the Owner's and Contractor's representative.
- F. System operations and maintenance chart shall be submitted to the Owners upon completion of the contract. This shall include, among others, the locations of the control valves and care of the new equipment.

3.7 MINOR MODIFICATIONS AND TIME COMPLETION

- A. The plans as drawn should show conditions as accurately as it is possible to indicate them in scale. The plans are diagrammatical and do not necessarily show all fittings, etc. necessary to fit the building conditions. The locations of valves, fittings and the fixture shown on the plans are approximately. The Contractor shall be responsible for the proper location in order to make them conform with architectural details and instructions.
- B. The Contractor shall complete the work herein described in accordance with the specific schedules set by the Owners in accordance with General Contractor's Schedule of work.

3.8 GUARANTEE

- A. The Contractor shall guarantee that the installed Sprinkler system complies with the requirements of the authorities and free from all defective workmanship and materials and will remain so, for a period of one(1) year from the date of final inspection and acceptance of the work. The contractor at no additional cost to the Owner shall correct any defect appearing within one year or as per stated in the contract.

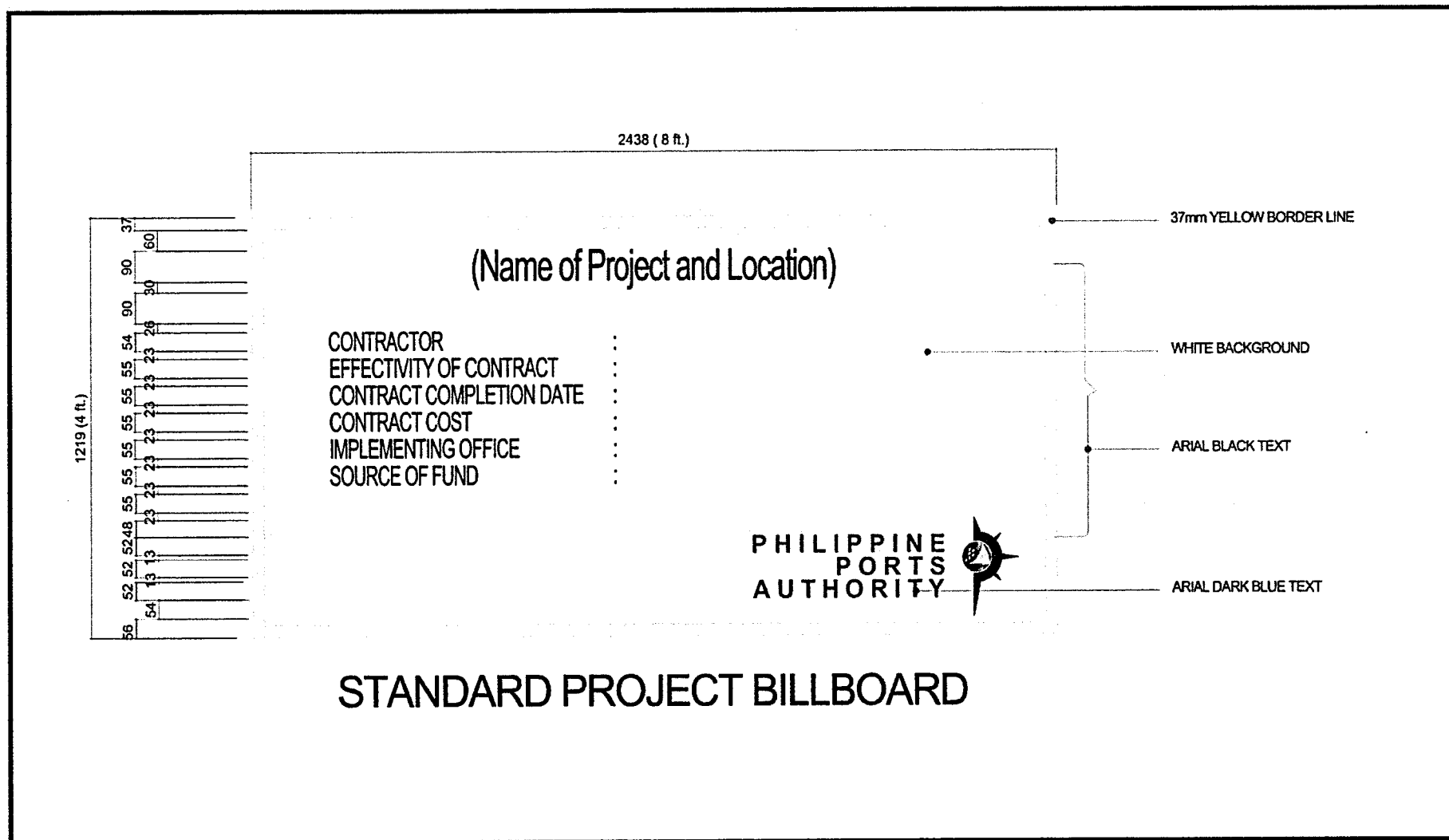
ITEM 27 : PROJECT BILLBOARD**SPECIFICATION**

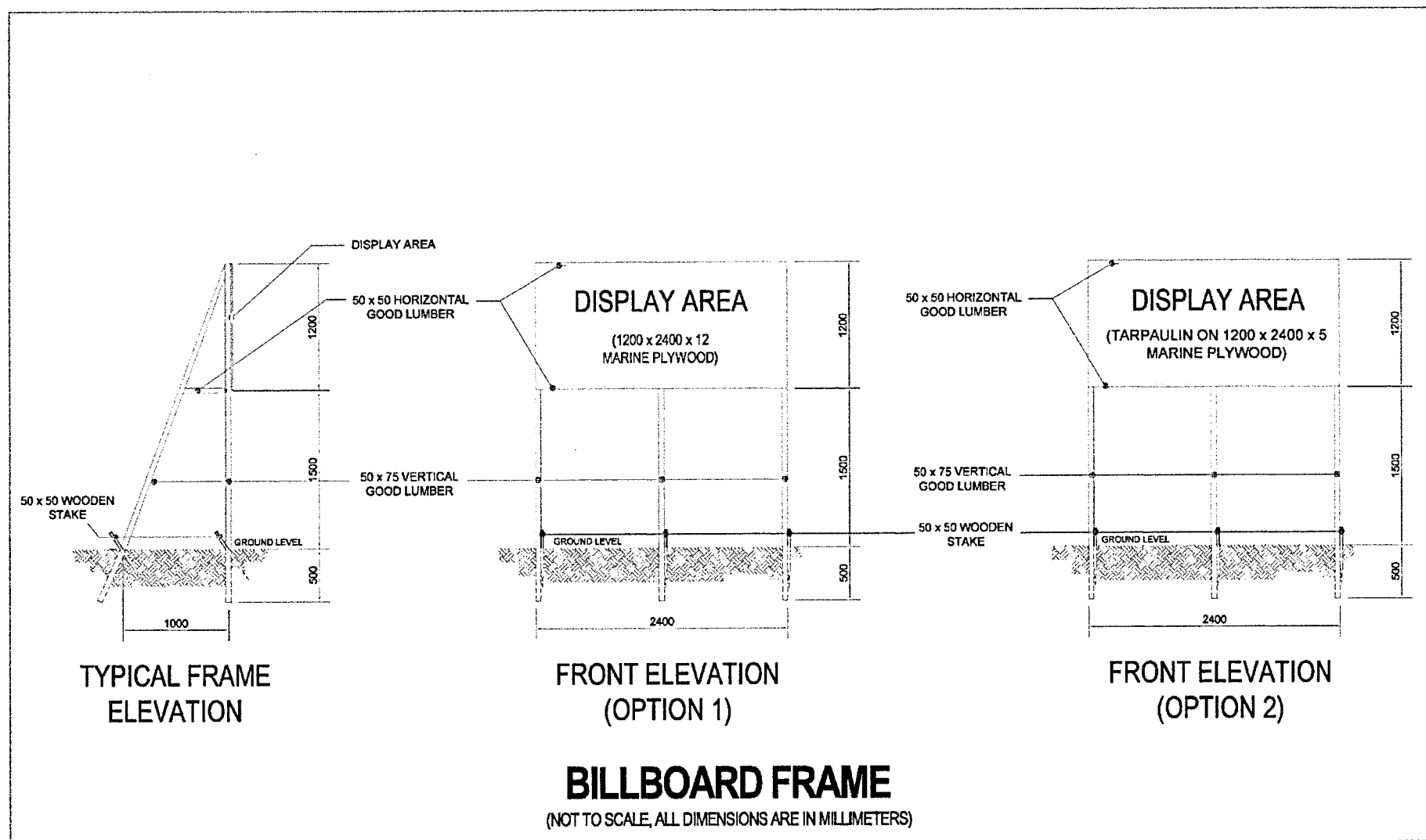
The Project Billboard shall be installed at location(s) designated by the Engineer.

The size and specifications of materials for the standard billboard shall be 4ft. x 8ft. (1,200mm x 2,400mm) using ½ inch (12mm) marine plywood or tarpaulin poster on 3/16 inch (5mm) marine plywood.

Project billboards shall not contain Name(s) and/or picture(s) of any personages.

See attached drawings for further details of the standard billboard.





ITEM 28 : SAFETY SIGNAGES AND BARRICADES

DESCRIPTION

This work includes the furnishing and installing of safety signages and barricades in accordance with the specifications and to the details shown below in the drawings, or as directed by the Engineer.

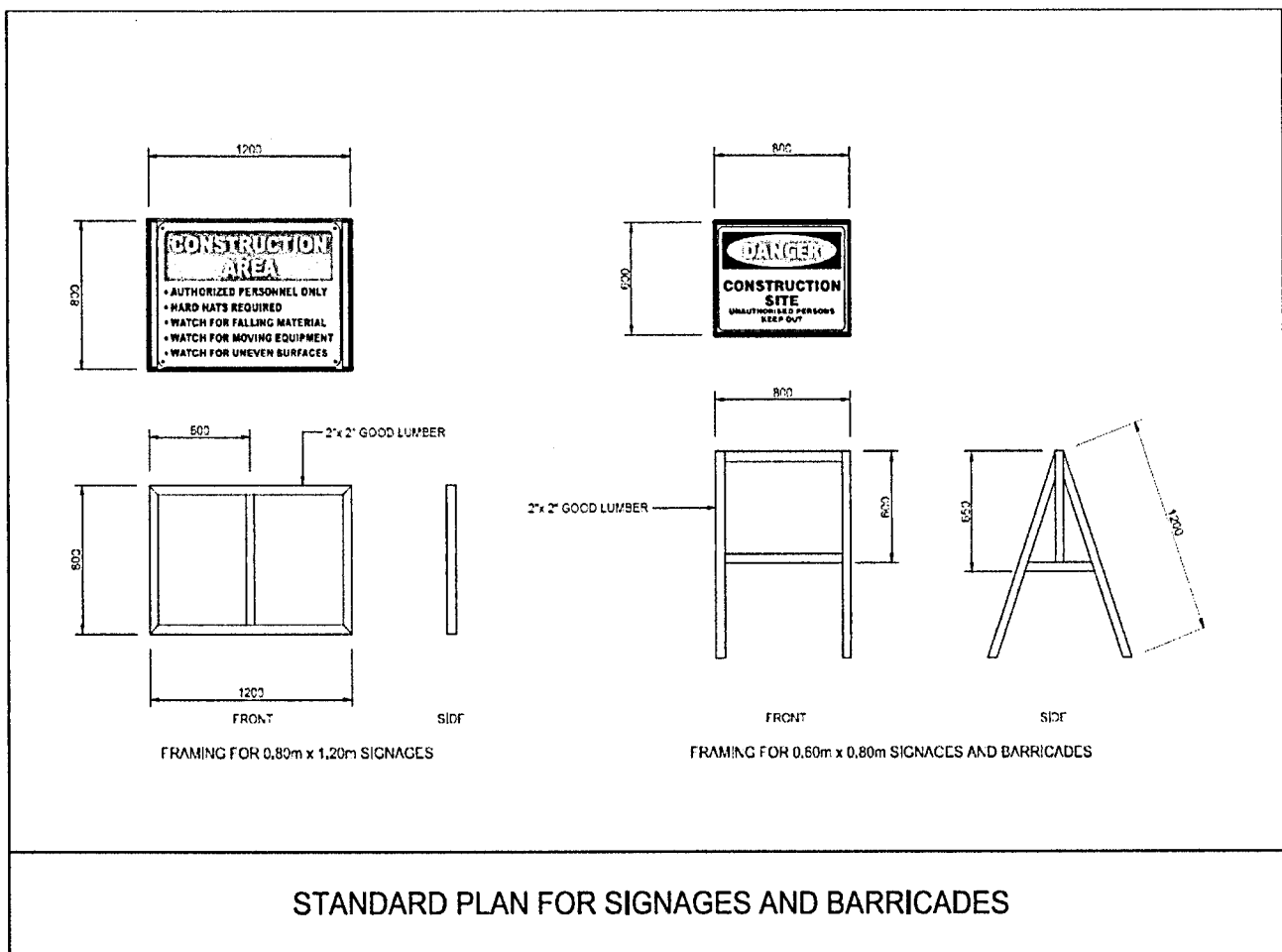
SPECIFICATION

The Signage's and Barricades shall be installed at location(s) designated by the Engineer.

The sizes of the standard signages shall be 2-2/3ft x 4ft (800mm X 1,200mm) for fixed type and 2ft x 2-2/3ft (600mm x 800mm) for mobile type. For barricade standard 2ft x 2-2/3ft (600mm x 800mm) shall be provided.

The materials to be used for signages and barricades are ½ inch (12mm) marine plywood or tarpaulin poster on 2" x 2" (50mm x 50mm) good lumber frame (see drawing below).

The printing or painting shall be the discretion of the Engineer.



SECTION VII

*DRAWINGS
(APPROVED PLANS)*

DRAWINGS AND APPROVED PLANS (SEE ISSUED APPROVED PLANS)

LIST OF DRAWINGS:

PASSENGER TERMINAL BUILDING

ARCHITECTURAL SHEETS

A-01 OF 47 – TABLE OF CONTENTS

A-02 OF 47 – LOCATION MAP, PERSPECTIVES

A-03 OF 47 – KEY PLAN, SITE DEVELOPMENT PLAN

A-04 OF 47 – KEY PLAN, BLOW-UP SITE DEVELOPMENT PLAN

A-05 OF 47 – GROUND FLOOR PLAN

A-06 OF 47 – SECOND FLOOR PLAN

A-07 OF 47 – ROOF DECK PLAN

A-08 OF 47 – ROOF PLAN

A-09 OF 47 – GROUND FLOOR PATTERN LAYOUT, LEGEND

A-10 OF 47 – SECOND FLOOR PATTERN LAYOUT, LEGEND

A-11 OF 47 – ROOF DECK FLOOR PATTERN LAYOUT, LEGEND

A-12 OF 47 – GROUND FLOOR REFLECTED CEILING PLAN, COVE DETAIL 1, WPC
BAFFLE CEILING SPACING, LEGEND

A-13 OF 47 – SECOND FLOOR REFLECTED CEILING PLAN, WPC BAFFLE CEILING
SPACING, COVE DETAIL 1, COVE DETAIL 2, COVE DETAIL 3, LEGEND

A-14 OF 47 – ROOF DECK REFLECTED CEILING PLAN, LEGEND

A-15 OF 47 – GROUND FLOOR WALL PARTITION LAYOUT, COLUMN CLADDING
DETAILS, LEGEND

A-16 OF 47 – SECOND FLOOR WALL PARTITION LAYOUT, COLUMN CLADDING
DETAILS, LEGEND

A-17 OF 47 – ROOF DECK WALL PARTITION LAYOUT, LEGEND

A-18 OF 47 – FRONT ELEVATION, REAR ELEVATION, RIGHT SIDE ELEVATION

A-19 OF 47 – LEFT SIDE ELEVATION, LONGITUDINAL SECTION THRU X-X', CROSS
SECTION THRU Y-Y'

A-20 OF 47 – SCHEDULE OF WINDOWS

A-21 OF 47 – SCHEDULE OF WINDOWS, FRONT CURTAIN WALL SYSTEM

A-22 OF 47 – REAR GLASS CURTAIN WALL SYSTEM

A-23 OF 47 – SCHEDULE OF DOORS

A-24 OF 47 – SCHEDULE OF GLASS PANEL PARTITION

A-25 OF 47 – RAMP 1 BLOW-UP DETAILS, PLAN (FROM GROUND FLOOR LEVEL TO LANDING 2), PLAN (FROM SECOND FLOOR LEVEL TO LANDING 2)

A-26 OF 47 – RAMP 1 BLOW-UP DETAILS, SECTION THRU A-A', PLAN, ISOMETRIC PERSPECTIVE, SECTION, FRONT ELEVATION, REAR ELEVATION

A-27 OF 47 – RAMP-2 BLOW-UP DETAILS, RAMP-3 BLOW-UP DETAILS, PLAN, FRONT ELEVATION, LEFT SIDE ELEVATION, RIGHT SIDE ELEVATION, REAR ELEVATION, STAIR 1 RAILING BLOW-UP DETAILS, STAIR 2 RAILING BLOW-UP DETAILS, HANDRAIL CONNECTION DETAILS

A-28 OF 47 – ATRIUM BLOW-UP DETAILS, PLAN, FRONT ELEVATION, TYPICAL TEMPERED GLASS RAILING BLOW-UP DETAILS, PLAN, FRONT ELEVATION, REAR ELEVATION, SECTION

A-29 OF 47 – STAIR 1 BLOW-UP DETAILS, GROUND FLOOR PLAN, SECOND FLOOR PLAN, THIRD FLOOR PLAN, SECTION THRU A-A', SECTION THRU B-B'

A-30 OF 47 – STAIR 2 BLOW-UP DETAILS, PLAN, ELEVATION, STAIR 3 BLOW-UP DETAILS, PLAN, SECTION

A-31 OF 47 – GROUND FLOOR MALE & FEMALE PUBLIC TOILET WEST WING, PLAN, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D', SECTION THRU E-E', SECTION THRU F-F'

A-32 OF 47 – GROUND FLOOR ALL GENDER TOILET WEST WING, GROUND MALE PWD TOILET WEST WING, PLAN, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D'

A-33 OF 47 – GROUND FLOOR FEMALE PWD TOILET WEST WING, GROUND FLOOR MALE FOOTBATH WEST WING, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D'

A-34 OF 47 – GROUND FLOOR FEMALE FOOTBATH WEST WING, GROUND FLOOR TMO's TOILET, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D'

A-35 OF 47 – GROUND FLOOR MALE AND FEMALE PUBLIC TOILET EAST WING, PLAN, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D', SECTION THRU E-E', SECTION THRU F-F'

A-36 OF 47 – GROUND FLOOR MALE PWD TOILET EAST WING, GROUND FLOOR FEMALE PWD TOILET EAST WING, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D'

- A-37 OF 47 – GROUND FLOOR ALL GENDER TOILET EAST WING, GROUND FLOOR DIAPER CHANGING/ NURSING MOTHER TOILET, PLAN, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D'
- A-38 OF 47 – GROUND FLOOR VIP LOUNGE 1 TOILET, GROUND FLOOR VIP LOUNGE 2 TOILET, PLAN, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D'
- A-39 OF 47 – SECOND FLOOR FEMALE PUBLIC TOILET WEST WING, SECOND FLOOR MALE PUBLIC TOILET WEST WING, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU D-D', SECTION THRU E-E'
- A-40 OF 47 – SECOND FLOOR FEMALE PWD TOILET WEST WING, SECOND FLOOR MALE PWD TOILET WEST WING, SECOND FLOOR ALL GENDER TOILET WEST WING, PLAN, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D'
- A-41 OF 47 – SECOND FLOOR FEMALE PUBLIC TOILET EAST WING, SECOND FLOOR MALE PUBLIC TOILET EAST WING, PLAN, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D'
- A-42 OF 47 – SECOND FLOOR FEMALE PWD TOILET EAST WING, SECOND FLOOR MALE PWD TOILET EAST WING, SECOND FLOOR ALL GENDER TOILET EAST WING, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D'
- A-43 OF 47 – GROUND FLOOR CLINIC TOILET, PLAN, SECTION THRU A-A', SECTION THRU B-B', SECTION THRU C-C', SECTION THRU D-D', FLIP-UP BAR DETAILS, GRAB BAR DETAILS, MIRROR DETAILS, FREE STANDING SIGNAGE DETAIL, PPA LOGO DETAIL
- A-44 OF 47 – RENTABLE DETAILS, PLAN, ELEVATION, FRAMING ISOMETRIC VIEW, FRAMING LAYOUT FRONT, SECTION A-A', FRAMING LAYOUT (SIDE), STALL COUNTERTOP DETAIL, KITCHEN COUNTERTOP DETAIL
- A-45 OF 47 – PLANT BOX 1 DETAILS, PLANT BOX 2 DETAILS, PLANT BOX 3 DETAILS, PLAN, SECTION, ELEVATION
- A-46 OF 47 – FOOD KIOSK BLOW-UP DETAIL, FLOOR PLAN, REFLECTED CEILING PLAN, TOP VIEW, ELEVATION A, ELEVATION B, EXPLODED AXONOMETRIC, PERSPECTIVE
- A-47 OF 47 – CHARGING STATION BLOW-UP DETAILS, PERSPECTIVE, PLAN, ELEVATION, SECTION, FOOD KIOSK SPOT DETAIL, SECTION 1, SECTION 2, SECTION 3, SECTION 4

STRUCTURAL SHEETS

- S-01 OF 21 – GENERAL NOTES
- S-02 OF 21 – PILE LAYOUT, PILE SCHEDULE
- S-03 OF 21 – FOUNDATION PLAN
- S-04 OF 21 – SECOND LEVEL BEAM LAYOUT

- S-05 OF 21 – THIRD LEVEL BEAM LAYOUT, ROOF BEAM LAYOUT (TANK ROOM), ROOF BEAM LAYOUT (STAIRWELL)
- S-06 OF 21 – SCHEDULE OF CANOPY FRAMING
- S-07 OF 21 – ADDITIONAL TOP AND BOTTOM FRAMING AT REAR CANOPY
- S-08 OF 21 – DETAIL OF PILE CAP 1 (PC-1), DETAIL OF PILE CAP 1 (PC-2), SLAB DETAILS, DETAIL OF WALL FOOTING-1, DETAIL OF WALL FOOTING-2, TYP. DETAIL OF STEP-UP, DETAIL OF FOOTING-1
- S-09 OF 21 – TYP. DETAIL OF CANOPY CONNECTION, DETAIL OF SB-1, TYP. CONNECTION OF CANOPY @ TWO BEAMS, TYP. CONNECTION OF CANOPY @ COLUMN, DETAIL OF SUNKEN SLAB, TYP. DETAIL OF CANTILEVER SLAB, TYP. DETAIL OF CONNECTION OF ADDITIONAL CANOPY
- S-10 OF 21 – BEAM SCHEDULE
- S-11 OF 21 – TYPICAL BEAM REINFORCEMENT AT COLUMN SUPPORT, TYPICAL INTERMEDIATE BEAM REINFORCEMENT AT BEAM SUPPORT, TYPICAL GIRDER REINFORCEMENT, TYPICAL SLAB REINFORCEMENT DETAIL
- S-12 OF 21 – DETAIL OF STAIR-1
- S-13 OF 21 – DETAIL OF STAIR-2
- S-14 OF 21 – DETAIL OF STAIR-1, DETAIL OF STAIR-2
- S-15 OF 21 – DETAIL OF STAIR-3
- S-16 OF 21 – DETAIL OF RAMP-UP
- S-17 OF 21 – COLUMN SCHEDULE, TYPICAL COLUMN ELEVATION, LINTEL BEAM DETAILS, STIFFENER COLUMN DETAIL
- S-18 OF 21 – DETAILS OF 450mm x 450mm PRE-STRESSED CONCRETE PILE
- S-19 OF 21 – TRUSS-1 SCHEDULE, DETAIL OF 10mm THK GUSSET PLATES, DETAIL OF TRUSS CONNECTION
- S-20 OF 21 – DETAIL OF ELEVATOR SHAFT, DETAIL OF ESCALATOR SHAFT FOUNDATION, DETAIL OF CURVEL AT ESCALATOR
- S-21 OF 21 – ROOF FRAMING PLAN

ELECTRICAL SHEETS

- E-01 OF 15 – GROUND FLOOR LIGHTING LAYOUT PLAN, LEGEND
- E-02 OF 15 – SECOND FLOOR LIGHTING LAYOUT PLAN, LEGEND
- E-03 OF 15 – SECOND FLOOR LIGHTING (STRIP LIGHT) LAYOUT PLAN, LEGEND

E-04 OF 15 – ROOF DECK LIGHTING / POWER AND LIGHTNING PROTECTION LAYOUT PLAN

E-05 OF 15 – GROUND FLOOR POWER LAYOUT PLAN, LEGEND

E-06 OF 15 – SECOND FLOOR POWER LAYOUT PLAN, LEGEND

E-07 OF 15 – GROUND FLOOR AIR CONDITION LAYOUT PLAN, LEGEND

E-08 OF 15 – SECOND FLOOR AIR CONDITION LAYOUT PLAN, LEGEND

E-09 OF 15 – ROOF DECK OUTDOOR AIR COOLED CONDENSING UNIT LAYOUT PLAN, LEGEND

E-10 OF 15 – SCHEDULE OF LOAD, RISER DIAGRAM

E-11 OF 15 – SCHEDULE OF LOAD, RISER DIAGRAM

E-12 OF 15 – SCHEDULE OF LOAD, RISER DIAGRAM

E-13 OF 15 – SINGLE LINE DIAGRAM

E-14 OF 15 – CONCRETE PEDESTAL POST, DETAIL OF DUCTBANK, DETAIL OF HANDHOLE

E-15 OF 15 – SERVICE ENTRANCE LAYOUT AND PORT LIGHTING LAYOUT PLAN, GENERAL NOTES, LEGEND

PL-01 OF 01 – SINGLE ANGLE BAR FLOODLIGHT STEEL TAPERED LAMP POST, DETAIL OF LAMP POST FOUNDATION, FLOODLIGHT POST CONNECTION DETAILS, SPECIFICATIONS

BGM/PA-01 OF 02 – GROUND FLOOR BACKGROUND MUSIC AND PAGING ALARM SYSTEM LAYOUT PLAN, LEGEND

BGM/PA-02 OF 02 – SECOND FLOOR BACKGROUND MUSIC AND PAGING ALARM SYSTEM LAYOUT PLAN, LEGEND

FDAS-01 OF 02 – GROUND FLOOR FIRE DETECTION ALARM SYSTEM LAYOUT PLAN, LEGEND

FDAS-02 OF 02 – SECOND FLOOR FIRE DETECTION ALARM SYSTEM LAYOUT PLAN, LEGEND

CATV & TEL-01 OF 02 – GROUND FLOOR CATV AND TELEPHONE LAYOUT PLAN, LEGEND

CATV & TEL-02 OF 02 – SECOND FLOOR CATV AND TELEPHONE LAYOUT PLAN, LEGEND

BGMPA, EDAS CATV/TEL-01 OF 01 – SINGLE LINE DIAGRAM BGM/PA, CATV / FDAS AND TELEPHONE LEGEND

MECHANICAL SHEETS

ME-01 OF 08 – GENERAL NOTES, NOTES ON PIPING INSTALLATION, DRAWING INDEX, LEGENDS & SYMBOLS, ABBREVIATIONS, EQUIPMENT SCHEDULE-01

ME-02 OF 08 – EQUIPMENT SCHEDULE-02

ME-03 OF 08 – GROUND FLOOR AIRCONDITIONING SYSTEM LAYOUT

ME-04 OF 08 – SECOND FLOOR AIRCONDITIONING SYSTEM LAYOUT

ME-05 OF 08 – ROOF DECK ACCU LAYOUT

ME-06 OF 08 – GROUND FLOOR VENTILATION SYSTEM LAYOUT

ME-07 OF 08 – SECOND FLOOR VENTILATION SYSTEM LAYOUT

ME-08 OF 08 – MISCELLANEOUS DETAILS

PLUMBING SHEETS

P-01 OF 15 – GENERAL NOTES AND SPECS, MATERIAL SPECS, SCHEDULE OF PIPE (SEWER LINE), DETAILS OF SEPTIC TANK, DETAILS OF WATER METER, PIPE TRENCHED BEDDING, TYPICAL SECTION OF CATCH BASIN, CLEANOUT DETAIL, SEPTIC TANK MANHOLE COVER DETAIL

P-02 OF 15 – GROUND FLOOR WATER LAYOUT, SCHEDULE OF PIPE (WATER LINE), LEGENDS AND SYMBOLS

P-03 OF 15 – SECOND FLOOR WATER LAYOUT

P-04 OF 15 – ROOF DECK WATER LAYOUT

P-05 OF 15 – BLOW-UP DETAILS

P-06 OF 15 – WATER LINE ISOMETRIC LAYOUT, DETAIL OF AIR CHAMBER

P-07 OF 15 – GROUND FLOOR SANITARY LAYOUT, LEGENDS AND SYMBOLS, GREASE TRAP DETAIL

P-08 OF 15 – SECOND FLOOR SANITARY LAYOUT

P-09 OF 15 – SANITARY LINE ISOMETRIC

P-10 OF 15 – BLOW-UP DETAILS

P-11 OF 15 – GROUND FLOOR STORM DRAINAGE LAYOUT, LEGENDS AND SYMBOLS

P-12 OF 15 – SECOND FLOOR STORM DRAINAGE LAYOUT

P-13 OF 15 – ROOF DECK STORM DRAINAGE LAYOUT, LEGENDS AND SYMBOLS

P-14 OF 15 – STORM DRAINAGE LINE ISOMETRIC LAYOUT, DETAIL OF DOWNSPOUT LAYOUT

P-15 OF 15 – SITE DEVELOPMENT PLAN

FIRE PROTECTION SHEETS

- FP-01 OF 09 – GENERAL NOTES, MATERIAL SPECIFICATIONS, EQUIPMENT SCHEDULE, LEGEND /SYMBOLS AND ABBREVIATION, SCHEDULE OF PIPE SLEEVES, SITE DEVELOPMENT PLAN
- FP-02 OF 09 – GROUND FLOOR FIRE PROTECTION LAYOUT
- FP-03 OF 09 – SECOND FLOOR FIRE PROTECTION LAYOUT
- FP-04 OF 09 – GROUND FLOOR FIRE EXTINGUISHER LAYOUT
- FP-05 OF 09 – SECOND FLOOR FIRE EXTINGUISHER LAYOUT
- FP-06 OF 09 – ROOF DECK FIRE PROTECTION AND FIRE EXTINGUISHER LAYOUT
- FP-07 OF 09 – FIRE PROTECTION SYSTEM RISER DIAGRAM, FIRE PUMP ROOM BLOW UP PLAN, FIRE PUMP ROOM LONGITUDINAL SECTION, DETAILS OF PIPE SLEEVE, DETAILS OF PIPE HANGER, DETAILS OF FLUSHING CONNECTION
- FP-08 OF 09 – MISCELLANEOUS DETAILS-1
- FP-09 OF 09 – MISCELLANEOUS DETAILS-2

PUMPHOUSE

- PH-01 OF 06 – FLOOR PLAN, ROOF PLAN, REFLECTED CEILING PLAN, LOCATION PLAN, SCHEDULE OF DOOR AND WINDOW
- PH-02 OF 06 – FRONT ELEVATION, RIGHT SIDE ELEVATION, REAR ELEVATION, LEFT SIDE ELEVATION, SECTION THRU X-X', SECTION THRU Y-Y'
- PH-03 OF 06 – FOUNDATION PLAN (PUMP HOUSE), GROUND FLOOR FRAMING PLAN (PUMP HOUSE), ROOF FRAMING PLAN (PUMP HOUSE)
- PH-04 OF 06 – RETAINING WALL DETAIL, DETAIL OF MANHOLE COVER, COLUMN SCHEDULE, PUMP HOUSE BEAM SCHEDULE, DETAIL OF STEP-UP
- PH-05 OF 06 – PUMP HOUSE PLUMBING PLAN, APPROXIMATE DIMENSIONS OF STAINLESS TANKS, WATER SUPPLY SCHEMATIC DIAGRAM
- PH-06 OF 06 – LIGHTING / POWER LAYOUT PLAN, LEGEND, SCHEDULE OF LOAD, RISER DIAGRAM

ANNEX

- ANNEX - 01 of 02 – GROUND FLOOR CCTV AND WIRING LAYOUT
- ANNEX - 02 of 02 – SECOND FLOOR CCTV AND WIRING LAYOUT

SECTION VIII

BILL OF QUANTITIES
and
ATTACHMENTS

SECTION VIII – BILL OF QUANTITIES

TABLE OF CONTENTS

	PAGE
1. 1a Bid Summary	1-1
1b Bill of Quantities	1
2. Annex 1 (Basis of Payments)	10
3. Annex 2 (Facilities to be Provided)	23
4. Annex 3 (Minimum Equipment Requirements)	24
5. Annex 4 (Construction Safety and Health Requirements)	25
6. Annex 5 (Minimum Testing Requirements)	26

BID SUMMARY
CONSTRUCTION OF PASSENGER TERMINAL BUILDING
Port of Zamboanga, Zamboanga City



NO.	DESCRIPTION OF WORK	AMOUNT (Pesos)
BILL NO. 1	GENERAL EXPENSES	
BILL NO. 2	DEMOLITION AND REMOVAL WORKS	
BILL NO. 3	PASSENGER TERMINAL BUILDING	
BID PRICE		

Name of Firm

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

Date

BILL OF QUANTITIES
CONSTRUCTION OF PASSENGER TERMINAL BUILDING
Port of Zamboanga, Zamboanga City



NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
BILL NO. 1	GENERAL EXPENSES				
1.01	Mobilization, demobilization and cleaning	lot	1		
1.02	Rental of temporary site office and residence for the Engineer and staff	mo.	18		
1.03	Maintain temporary site office and residence for the Engineer and staff	mo.	18		
1.04	Provide Construction Safety and Health Program in the execution of the project	mo.	18		
TOTAL FOR BILL NO. 1					

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

BILL OF QUANTITIES
CONSTRUCTION OF PASSENGER TERMINAL BUILDING
Port of Zamboanga, Zamboanga City



NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
BILL NO. 2	DEMOLITION AND REMOVAL WORKS				
2.01	Demolish and dispose remaining existing building structure and turn-over of materials with value to the authority as directed by the Engineer	sq.m.	319		
2.02	Demolish and dispose existing PCCP	sq.m.	1,465		
2.03	Scraping of existing gravel materials	cu.m.	1,220		
2.04	Demolish and dispose existing CHB Fence, removal of Temporary fence including turn-over of materials with value to the authority as directed by the Engineer	l.m.	370		
2.05	Remove existing portion of canopy and turn-over of materials with value to the authority as directed by the Engineer	sq.m.	144		
TOTAL FOR BILL NO. 2					

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

BILL OF QUANTITIES
CONSTRUCTION OF PASSENGER TERMINAL BUILDING
Port of Zamboanga, Zamboanga City



NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
BILL NO.	3 PASSENGER TERMINAL BUILDING				
3.01	Subgrade preparation	sq.m.	4,660		
3.02	Excavation and backfilling works	cu.m.	232		
3.03	Supply and apply soil treatment	sq.m.	5,965		
3.04	Supply, place and compact selected fill materials prior of placing slab on-grade	cu.m.	3,833		
3.05	Supply, place and compact gravel bedding for building foundation, ramps, stair foundation, & catch basin	cu.m.	189		
3.06	Supply & place 4,000 psi. concrete for building structures including elevator shaft, elevator pit, and ramp	cu.m.	641		
3.07	Supply & install steel reinforcement for building structures including elevator shaft, elevator pit, and ramp				
	a) Steel Reinforcement (Grade 40)	kg.	79,527		
	b) Steel Reinforcement (Grade 60)	kg.	112,246		
3.08	Construct 4,000 psi. concrete slab and ramp on-fill including reinforcement	sq.m.	1,163		
3.09	Construct 150mm thick CHB wall including reinforcement	sq.m.	4,112		
3.10	Construct 100mm thick CHB wall including reinforcement	sq.m.	37		

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

BILL OF QUANTITIES
CONSTRUCTION OF PASSENGER TERMINAL BUILDING
Port of Zamboanga, Zamboanga City



NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
3.11	Supply, fabricate and install structural steel materials including accessories	kg.	90,715		
3.12	Supply and apply anti-rust paint and quick dry enamel for metal surfaces	sq.m.	2,025		
3.13	Supply, deliver and install roofing materials including roof gutter, ridge roll and other accessories	sq.m.	2,235		
3.14	Supply and install dry wall partition	sq.m.	1,558		
3.15	Supply, fabricate and install carpentry works including stall counter top, cabinets, fluted panel wall, fiberboard, skirting, and other accessories	lot	1		
3.16	Supply and install artificial landscape including accessories	lot	1		
3.17	Supply and place 13mm thick cement Plaster finish	sq.m.	6,035		
3.18	Supply and apply Elastomeric paint (2-coats)	sq.m.	4,857		
3.19	Supply and apply Flat latex paint (2-coats)	sq.m.	3,076		
3.20	Supply and apply Quick dry enamel paint (2-coats)	sq.m.	1,072		
3.21	Supply and apply water proofing for toilets, footbaths, stair wells, roof deck and canopies including escalator and elevator pit	sq.m.	3,127		
3.22	Supply and install Aluminum Composite Panel and accessories	sq.m.	4,509		

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

BILL OF QUANTITIES
CONSTRUCTION OF PASSENGER TERMINAL BUILDING
Port of Zamboanga, Zamboanga City



NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
3.23	Supply and install Floor and wall Tiles with various sizes including wash concrete finish and tactile blocks	sq.m.	9,555		
3.24	Supply and install Quartzstone splashboard and countertop	sq.m.	83		
3.25	Supply and install 50mm x 10mm thk. Stair Nosing (Rigid Type)	l.m.	61		
3.26	Supply and install Photoluminescent signs & path marking for emergency route including framing and other accessories	lot.	1		
3.27	Supply and install Mineral Fibre Acoustical Lay-in Panel on Galvanized Steel Exposed Grid and Framing Finished (0.60m x 0.60m x 19mm)	sq.m.	50		
3.28	Supply and install 0.6mm x 1.2m Aluminum Clip-in Perforated Panels, bone white including other miscellaneous items	sq.m.	3,434		
3.29	Supply and install 12mm thk. Gypsum Board Painted (Moisture Resistance) on 0.40mm thk. Galvanized Steel Ceiling Suspension System including Furring, Carrying Channel, suspension rod and other miscellaneous items	sq.m.	3,529		
3.30	Supply and Install (0.05m x 0.10m) WPC Baffle Ceiling	sq.m.	1,468		
3.31	Supply and install stainless steel materials, buffed finish of various sizes including 10mm thk. tempered glass for railings, observatory and other accessories	lot	1		

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

BILL OF QUANTITIES
CONSTRUCTION OF PASSENGER TERMINAL BUILDING
Port of Zamboanga, Zamboanga City



NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
3.32	Supply and install fabricated 1.5 mm thk. Aluminum Framed Doors and Windows including glass and accessories	lot	1		
3.33	Supply and install fabricated Cold rolled steel emergency exit Doors with panic bar lock including jumbs and accessories	lot.	1		
3.34	Supply and install fabricated Marine Plywood Finish Flush Doors door jambs, hinges, locksets and other accessories	lot	1		
3.35	Supply and install fabricated PVC Doors, door jambs, hinges and locksets	lot	1		
3.36	Supply, fabricate and install Phenolic anti-bacterial water proof Toilet partition 12mm thk, including stainless hinges, lock indicators, bottom support door knobs and coat hooks	lot	1		
3.37	Supply, fabricate and install 16mm thk. Low-E laminated curtain glass wall including accessories	sq.m.	1,984		
3.38	Supply, fabricate and install Glass panel including accessories	lot	1		
3.39	Supply and install Toilet Fixtures and accessories including water drinking station, and glass mirrors	lot	1		
3.40	Supply and install water line pipes and fittings including accessories.	lot	1		
3.41	Supply and install sewerage pipes and fittings including accessories.	lot	1		

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

BILL OF QUANTITIES
CONSTRUCTION OF PASSENGER TERMINAL BUILDING
Port of Zamboanga, Zamboanga City



NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
3.42	Supply and install drainage pipes and fittings including accessories	lot	1		
3.43	Construct septic vault including fittings and accessories	no.	2		
3.44	Construct catch basin including accessories	no.	24		
3.45	Supply, deliver and install wires and cables of various sizes	lot	1		
3.46	Supply, deliver and install conduit pipe including fittings of various sizes	lot	1		
3.47	Supply, deliver and install wiring devices	lot	1		
3.48	Supply, deliver and install protective devices	lot	1		
3.49	Supply, deliver and install lighting fixtures	lot	1		
3.50	Supply, deliver and install lightning protection and accessories	lot	1		
3.51	Supply, deliver and install auxiliary system:				
	a) Community Antenna Television (CATV)	lot	1		
	b) Background Music / Paging Alarm (BGM/PA)	lot	1		
	c) Fire Detection Alarm System (FDAS)	lot	1		
	d) Telephone System	lot	1		
3.52	Supply, deliver and install airconditioning unit	lot	1		
3.53	Supply, deliver and install Ventilation unit and other apurtenances	lot	1		

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

BILL OF QUANTITIES
CONSTRUCTION OF PASSENGER TERMINAL BUILDING
Port of Zamboanga, Zamboanga City



NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
3.54	Supply, deliver and install Elevator unit including accessories	set	4		
3.55	Supply, deliver and install Escalator unit including accessories	set	2		
3.56	Construct Pumphouse including domestic water tank, fire tank, and other appurtenances	lot	1		
3.57	Supply, spread and compact gravel base course	cu.m.	897		
3.58	Restore demolished pavement including asphalt sealer and dowel bars for construction joint.	sq.m.	4,484		
3.59	Construct Reinforced Concrete Pedestal post, lamp post, ductbank and handhole	lot	1		
3.60	Supply, deliver and install Gang-chairs and accessories	lot	1		
3.61	Supply and deliver office furnitures	lot	1		
3.62	Supply and install PPA Logo including accessories	lot	1		
3.63	Supply, deliver and installation of distribution transformer including accessories, bill deposit and other incidental expenses	lot	1		
3.64	Supply deliver and install port lighting system including lamp post and other accessories	lot	1		

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

BILL OF QUANTITIES
CONSTRUCTION OF PASSENGER TERMINAL BUILDING
Port of Zamboanga, Zamboanga City



NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
3.65	Supply and install fire protection system incluing accessories, testing, commisioning, fire extinguishers , permits, clearances, & other necessary documents	lot	1		
3.66	Supply, delivery and Installation of Wastewater Treatment Facility, including testing, commissioning, and all necessary equipment, and appurtenances	lot	1		
TOTAL FOR BILL NO. 3					

Name of Bidder/Authorized Representative
(Signatory's Legal Capacity)

BASIS OF PAYMENT FOR WORK ITEMS INCLUDED IN THE PROPOSAL

The work items included in the proposal and the basis of payments are as follows:

BILL NO. 1

GENERAL EXPENSES

Item 1.01 Mobilization, demobilization, and cleaning

The quantity to be paid for shall be the minimum equipment requirement enumerated in the bid documents mobilized, demobilized and cleaning of the site and accepted by the Engineer. The contract lump sum price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary to mobilize and demobilize all the minimum equipment requirement enumerated in the bid documents including cleaning of the site. Fifty percent (50%) of the total amount shall be payable after the mobilization activity while the remaining (50%) payable after demobilization and cleaning.

Item 1.02 Rental of temporary site office and residence for the Engineer and staff

The quantity to be paid for shall be the actual rental of site office and residence for the engineer and staff and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary for the provision of temporary site office and residence for the engineer and staff.

Item 1.03 Maintain temporary site office and residence for the Engineer and staff

The quantity to be paid for shall be the actual services rendered in maintaining the site office and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary to complete the maintenance of the temporary site office and residence as well as other expenses such as provision for electric power, telephone bill, potable water supply, janitorial and security services.

Item 1.04 Provide construction safety and Health Program in the execution of the project

The quantity to be paid for shall be the actual implementation of construction safety and health program and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary to complete the implementation of the Construction Safety and Health Program, as required and approved by the Department of Labor and Employment (DOLE).

BILL NO. 2

DEMOLITION AND REMOVAL WORKS

Item 2.01 Demolish and dispose remaining existing building structure and turn-over of materials with value to the authority as directed by the Engineer

The quantity to be paid for shall be the actual area in square meter of the remaining existing building structure to be demolished and disposed including turning over of materials with value to the authority in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 2.02 Demolish and dispose existing PCCP

The quantity to be paid for shall be the actual area in square meter of existing PCCP to be demolished and disposed of in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 2.03 Scraping of existing gravel materials

The quantity to be paid for shall be the actual volume in cubic meter of existing gravel materials to be scraped in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 2.04 Demolish and dispose existing CHB Fence, removal of Temporary fence including turn-over of materials with value to the authority as directed by the Engineer

The quantity to be paid for shall be the actual length in linear meter of existing CHB Fence to be demolished and disposed of including removal of temporary fence and turnover of materials with value to the authority as directed by the Engineer in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 2.05 Remove existing portion of canopy and turn-over of materials with value to the authority as directed by the Engineer

The quantity to be paid for shall be the actual area in square meter of the existing portion of canopy to be removed, including the turnover of materials with value to the authority as directed by the Engineer in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

BILL NO. 3

PASSENGER TERMINAL BUILDING

Item 3.01 Subgrade preparation

The quantity to be paid for shall be the actual area in square meter of subgrade to be prepared in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.02 Excavation and backfilling works

The quantity to be paid for shall be the actual volume in cubic meter of excavation and backfilling works completed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.03 Supply and apply soil treatment

The quantity to be paid for shall be the actual area in square meter of soil treatment to be supplied and applied in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.04 Supply, place and compact selected fill materials prior of placing slab on-grade

The quantity to be paid for shall be the actual volume in cubic meter of selected fill materials to be supplied, placed, and compacted prior for placing of slab on-grade in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.05 Supply, place and compact gravel bedding for building foundation, ramps, stair foundation, & catch basin

The quantity to be paid for shall be the actual volume in cubic meter of gravel bedding to be supplied, placed, and compacted for building foundation, ramps, stair foundation, & catch basin in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.06 Supply & place 4,000 psi. concrete for building structures including elevator shaft, elevator pit, and ramp

The quantity to be paid for shall be the actual volume in cubic meter of 4,000 psi. concrete to be supplied and set-in-place for building structures including elevator shaft, elevator pit, and ramp in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.07 Supply & install steel reinforcement for building structures including elevator shaft, elevator pit, and ramp

- a) Grade 40**
- b) Grade 60**

The quantity to be paid for shall be the actual weight in kilogram of various grade types of steel reinforcement to be supplied and installed for building structures including elevator shaft, elevator pit, and ramp in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.08 Construct 4,000 psi. concrete slab and ramp on-fill including reinforcement

The quantity to be paid for shall be the actual area in square meter of 4,000 psi concrete slab and ramp on-fill including reinforcement to be constructed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.09 Construct 150mm thick CHB wall including reinforcement

The quantity to be paid for shall be the actual area in square meter of 150mm thick CHB wall including reinforcement to be constructed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.10 Construct 100mm thick CHB wall including reinforcement

The quantity to be paid for shall be the actual area in square meter of 100mm thick CHB wall including reinforcement to be constructed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.11 Supply, fabricate and install structural steel materials including accessories

The quantity to be paid for shall be the actual weight in kilogram of structural steel materials including accessories to be supplied, fabricated, and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.12 Supply and apply anti-rust paint and quick dry enamel for metal surfaces

The quantity to be paid for shall be the actual area in square meter of anti-rust paint and quick dry enamel for metal surfaces to be supplied and applied in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.13 Supply, deliver and install roofing materials including roof gutter, ridge roll and other accessories

The quantity to be paid for shall be the actual area in square meter of roofing materials including roof gutter, ridge roll and other accessories to be supplied, delivered and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.14 Supply and install dry wall partition

The quantity to be paid for shall be the actual area in square meter of dry wall partition to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.15 Supply, fabricate and install carpentry works including stall countertop, cabinets, fluted panel wall, fiberboard, skirting, and other accessories

The quantity to be paid for shall be the actual lot of carpentry works including stall countertop, cabinets, fluted panel wall, fiberboard, skirting, and other accessories to be supplied, fabricated and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.16 Supply and install artificial landscape including accessories

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of artificial landscape including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.17 Supply and place 13mm thick cement Plaster finish

The quantity to be paid for shall be the actual area in square meter of 13mm thick cement Plaster finish to be supplied and placed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.18 Supply and apply Elastomeric paint (2-coats)

The quantity to be paid for shall be the actual area in square meter of concrete surfaces to be supplied and applied with Elastomeric paint (2-coats) in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.19 Supply and apply Flat latex paint (2-coats)

The quantity to be paid for shall be the actual area in square meter of ceiling surfaces to be supplied and applied with Flat latex paint (2-coats) in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full

compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.20 Supply and apply Quick dry enamel paint (2-coats)

The quantity to be paid for shall be the actual area in square meter of steel surfaces to be supplied and applied with Quick dry enamel paint (2-coats) in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.21 Supply and apply water proofing for toilets, footbaths, stair wells, roof deck and canopies including escalator and elevator pit

The quantity to be paid for shall be the actual area in square meter of toilets, footbaths, stair wells, roof deck and canopies including escalator and elevator pit surfaces, to be supplied and applied with waterproofing in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.22 Supply and install Aluminum Composite Panel and accessories

The quantity to be paid for shall be the actual area in square meter of Aluminum Composite Panel and accessories to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.23 Supply and install Floor and wall Tiles with various sizes including wash concrete finish and tactile blocks

The quantity to be paid for shall be the actual area in square meter of Floor and wall Tiles with various sizes including wash concrete finish and tactile blocks to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.24 Supply and install Quartz stone splashboard and countertop

The quantity to be paid for shall be the actual area in square meter of Quartz stone splashboard and countertop to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.25 Supply and install 50mm x 10mm thick Stair Nosing (Rigid Type)

The quantity to be paid for shall be the length in linear meter of 50mm x 10mm thick Stair Nosing (Rigid Type) to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

- Item 3.26 Supply and install Photoluminescent signs & path marking for emergency route including framing and other accessories**
- The quantity to be paid for shall be the actual lot of Photoluminescent signs & path marking including framing and other accessories to be supplied and installed for emergency route in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.
- Item 3.27 Supply and install Mineral Fibre Acoustical Lay-in Panel on Galvanized Steel Exposed Grid and Framing Finished (0.60m x 0.60m x 19mm)**
- The quantity to be paid for shall be the actual area in square meter of Mineral Fibre Acoustical Lay-in Panel on Galvanized Steel Exposed Grid and Framing Finished (0.60m x 0.60m x 19mm) to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.
- Item 3.28 Supply and install 0.6mm x 1.2m Aluminum Clip-in Perforated Panels, bone white including other miscellaneous items**
- The quantity to be paid for shall be the actual area in square meter of 0.6mm x 1.2m Aluminum Clip-in Perforated Panels, bone white including other miscellaneous items to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.
- Item 3.29 Supply and install 12mm thick Gypsum Board Painted (Moisture Resistance) on 0.40mm thick Galvanized Steel Ceiling Suspension System including Furring, Carrying Channel, suspension rod and other miscellaneous items**
- The quantity to be paid for shall be the actual area in square meter of 12mm thick Gypsum Board Painted (Moisture Resistance) on 0.40mm thick Galvanized Steel Ceiling Suspension System including Furring, Carrying Channel, suspension rod and other miscellaneous items to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.
- Item 3.30 Supply and Install (0.05m x 0.10m) WPC Baffle Ceiling**
- The quantity to be paid for shall be the actual area in square meter of (0.05m x 0.10m) WPC Baffle Ceiling to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.
- Item 3.31 Supply and install stainless steel materials, buffed finish of various sizes including 10mm thick tempered glass for railings, observatory and other accessories**
- The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of stainless-steel materials, buffed finish, of various sizes, including 10mm thick tempered glass for railings, observatory and other accessories in

accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.32 Supply and install fabricated 1.5 mm thick Aluminum Framed Doors and Windows including glass and accessories

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of fabricated 1.5 mm thick Aluminum Framed Doors and Windows including glass and accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.33 Supply and install fabricated Cold rolled steel emergency exit Doors with panic bar lock including jambs and accessories

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of fabricated Cold rolled steel emergency exit Doors with panic bar lock including jambs and accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.34 Supply and install fabricated Marine Plywood Finish Flush Doors, door jambs, hinges, locksets and other accessories

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of fabricated Marine Plywood Finish Flush Doors, door jambs, hinges, locksets and other accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.35 Supply and install fabricated PVC Doors, door jambs, hinges and locksets

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of fabricated PVC Doors, door jambs, hinges and locksets in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.36 Supply, fabricate and install Phenolic anti-bacterial waterproof Toilet partition 12mm thick, including stainless hinges, lock indicators, bottom support doorknobs and coat hooks

The quantity to be paid for shall be the actual lot of works required to complete the supply, fabrication, and installation of Phenolic anti-bacterial waterproof Toilet partition 12mm thick, including stainless hinges, lock indicators, bottom support doorknobs and coat hooks in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.37 Supply, fabricate and install 16mm thick Low-E laminated curtain glass wall including accessories

The quantity to be paid for shall be the actual area in square meter of 16mm thick Low-E laminated curtain glass wall, including accessories to be supplied, fabricated and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.38 Supply, fabricate and install Glass panel including accessories

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of Glass panel including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.39 Supply and install Toilet Fixtures and accessories including water drinking station, and glass mirrors

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of Toilet Fixtures and accessories including water drinking station and glass mirrors in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.40 Supply and install water line pipes and fittings including accessories

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of water line pipes and fittings including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.41 Supply and install sewerage pipes and fittings including accessories

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of sewerage pipes and fittings including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.42 Supply and install drainage pipes and fittings including accessories

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of drainage pipes and fittings including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.43 Construct septic vault including fittings and accessories

The quantity to be paid for shall be the actual number of septic vault including fittings and accessories, to be constructed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for

furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.44 Construct catch basin including accessories

The quantity to be paid for shall be the actual number of catch basin including accessories to be constructed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.45 Supply, deliver and install wires and cables of various sizes

The quantity to be paid for shall be the actual lot of works required to complete the supply and installation of wires and cables of various sizes in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.46 Supply, deliver and install conduit pipe including fittings of various sizes

The quantity to be paid for shall be the actual lot of works required to complete the supply, delivery, and installation of conduit pipe including fittings of various sizes in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.47 Supply, deliver and install wiring devices

The quantity to be paid for shall be the actual lot of works required to complete the supply, delivery, and installation of wiring devices in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.48 Supply, deliver and install protective devices

The quantity to be paid for shall be the actual lot of works required to complete the supply, delivery, and installation of protective devices in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.49 Supply, deliver and install lighting fixtures

The quantity to be paid for shall be the actual lot of works required to complete the supply, delivery, and installation of lighting fixtures in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the work.

Item 3.50 Supply, deliver and install lightning protection and accessories

The quantity to be paid for shall be the actual lot of works required to complete the supply, delivery, and installation of lightning protection and accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price