

discoloring, or overheating any portion of the material. The machine is required to have the same equipment as that specified for paint.

#### **D. PREFORMED PLASTIC**

Preformed plastic is a homogenous plastic film at least 60 mils thick and of the width specified. The preformed plastic has a precoated adhesive and an easily removed backing to protect the adhesive in storage and to permit rapid application. The adhesive allows the preformed plastic material to be re-positioned on the pavement surface before the material is permanently set into position by the rollers. Preformed plastic material is furnished in rolls. The preformed plastic may be used on either HMA or concrete pavement. The material molds itself to pavement contours, breaks, and faults under traffic at normal pavement temperatures.

Preformed plastic markings may be applied only when the air temperature is 60°F and rising and when the pavement temperature is 70°F or higher. The pavement surface is required to be primed with an asphalt material in accordance with manufacturer's recommendations. The equipment for applying preformed plastic markings is required to:

- 1) Be a portable hand-propelled machine capable of carrying and applying at least two rolls of either 4 or 6 inch plastic
  - 2) Be equipped with a guide pointer to keep the machine on an accurate line
  - 3) Be equipped with guide rollers and a pressure roller which is at least 2 inches wider than the width of the marking material and weigh a minimum of 200 lb to satisfactorily press the marking material onto the pavement
  - 4) Feed the material from its original carton through the guide rollers and under the pressure roller onto the pavement
  - 5) Be capable of removing the backing paper from the material during the application process
- Preformed plastic furnished in strip, symbol, or legend form is applied with suitable equipment such as hand rollers.

#### **E. EPOXY**

Epoxy is a two component material: pigment and epoxy resins and a curing agent. The manufacturer's recommendations should be followed for the mixing ratio of the components. The ratio cannot vary by more than plus or minus 2 1/2 percent during the mixing or application procedures. Epoxy is normally used on portland cement concrete pavements. Epoxy may be applied only when the pavement temperature is 40°F or above. The wet film thickness is required to be at least 0.015 inch (1/64 inch.). Immediately following the application of the epoxy markings, glass beads are applied to the wet surface at the rate of 20 pounds per 100 square feet of marking. At this rate, one pound of beads would cover 15 lineal feet of 4-inch wide marking.

The machine used to apply the epoxy marking material is required to precisely meter the two components and produce and maintain the necessary mixing head temperature in accordance with the manufacturer's recommendations. The machine is required to be equipped with:

- 1) A high pressure water blast device ahead of a high pressure air blast device, both as an integral part of the gun carriage, for cleaning the pavement ahead of the marking application
- 2) A guide pointer to keep the machine on an accurate line

- 3) At least two spray guns which may be operated individually or simultaneously
- 4) An automatic device that provides a broken line of the required length
- 5) Automatic glass bead dispenser(s) synchronized with the marking application

**ITEM 7 : ROAD SOLAR STUDS****DESCRIPTION**

This Item shall consist of furnishing and installing internally illuminated (solar) pavement levelled markers/studs on the surface of the pavement in accordance with this Specification and at the lines and locations shown on the Plans.

Internally Illuminated (Solar) Pavement Levelled Markers/Studs  
The internally illuminated (solar) pavement levelled markers/studs shall be either mono-directional or uni-directional, bi-directional or omni-directional.

The reinforced body case shall be made of aluminum die cast with adequate webbing to ensure a firm key to the road when installed. The protective upper cup or security ring shall be made of aluminum die cast with a minimum of five (5) stainless steel safety locks.

The internal circuit module shall be detachable from the reinforced body case for easy maintenance and shall be made of impact and abrasion resistant polycarbonate material which is tightly sealed with its body having an Ingress Protection (IP) 68 rating (dust and water resistant) based from IEC 60529, Degrees of protection provided by enclosures (IP Code).

The internally illuminated (solar) pavement levelled markers/studs shall conform to the applicable requirements of EN 55015, Limits and Methods of Measurement of Radio Disturbance Characteristics of Electrical Lighting and Similar Equipment, and EN 61547, Equipment for General Lighting Purposes - EMC Immunity Requirements. The certified true copy of the said test results shall be issued by the manufacturer to the Contractor reiterating the current date of certification and must be submitted to the Engineer before doing the installation work.

The solar cell and the rechargeable battery shall be of the latest technology and shall be able to last for at least 3 days of LED runtime with a 12 hour per day discharge criteria on one (1) full charge. The light-emitting diode (LED) shall have luminous intensity varying depending on the color (yellow, white, red, green, and blue). For yellow and white, the minimum luminous intensity values expressed in millicandela (mcd) is shown in Table 607(3).1. The LED shall have an output frequency of either steady or flashing.

**Luminous Intensity Properties**

Luminanceintensity (mcd)	Color	
	Yellow	White
Vertical angle 0.2° / Horizontal angle 0°	350	400
Vertical angle 0.3° / Horizontal angle +5°	200	200
Vertical angle 0.3° / Horizontal angle -5°	200	200
Vertical angle 1.0° / Horizontal angle + 10°	100	100
Vertical angle 1.0° / Horizontal angle -10°	100	100

All LEDs should be covered with polycarbonate covers on the sides. Mono-directional or Uni-directional Internally Illuminated (Solar) pavement levelled markers/studs shall either have three (6) LED or a minimum of three (3) LED on one (1) tapering side. Bi-directional internally illuminated (solar) pavement leveled markers/studs one (1) tapering side. Omni-directional internally illuminated (solar) pavement leveled

markers/studs shall have a minimum of three (3) LEDS on one tapering side and a minimum of two (2) on two (2) opposite tapering sides.

## Specifications

Properties	Requirements
Housing/Body	Aluminum Die Cast
Diameter (Main Body), Min.	125 mm dia.
Height, Min.	39 mm
Weight,	Min. 750 grams
Solar Panel,	Min. Mono (Single) Crystalline 2.5V, 120mA
Rechargeable Battery	Anti-heat Lithium Iron Phosphate (LiFeP04)
3.2V, 1000-1500mAh	
LED Chip, Min.	6mm
Gradient on LED Sides	30 degrees
Operating Temperature	-20°C to 65°C
Compression Test, Min.	32 Tons

## Adhesive

Any approved two-part epoxy adhesive shall be used in the installation of the internally illuminated (solar) pavement levelled markers/studs.

## Construction Requirements

The markers/studs shall be installed into the pavement in accordance with the manufacturer's instructions but shall also comply with the specified requirements. Holes in the pavement shall be true to size of the marker/stud and shall be cleanly cut using appropriate coring equipment. Holes shall be clean and free from all dirt, dust, oil, grease, laitance, or any other materials, which would prevent bonding, prior to application of adhesive. No adhesive shall be applied when the weather is foggy or rainy. Placing and positioning of the marker/stud shall be by means of rubber mallet until the top surface is flush with the pavement and with the main directional LED light parallel to the centerline of the road. Excess adhesive displaced during the placing and positioning of the markers/studs shall be wiped clean and no adhesive shall be left exposed on the surface of the pavement. Traffic shall be kept off the newly installed markers/studs for a period of at least 2 hours or until such time that the adhesive has sufficiently cured as determined by the Engineer.

## Markings

Product marking (Manufacturer or applicable abbreviation and approval number) shall be clear and firm by way of not erasing easily and to be seen easily for road studs.

## Warranty

The Contractor shall obtain from the manufacturer a one-year warranty for satisfactory field performance including stipulated luminous intensity of the LED and battery back-up capacity and submit the same to the Engineer.

## Method of Measurement

The quantity of internally illuminated (solar) pavement levelled markers/studs to be paid for shall be the number of internally illuminated (solar) pavement levelled markers/studs of mono-directional or uni-directional type, bi-directional type and omni-directional type, whichever is called for in the Contract, installed complete and accepted.

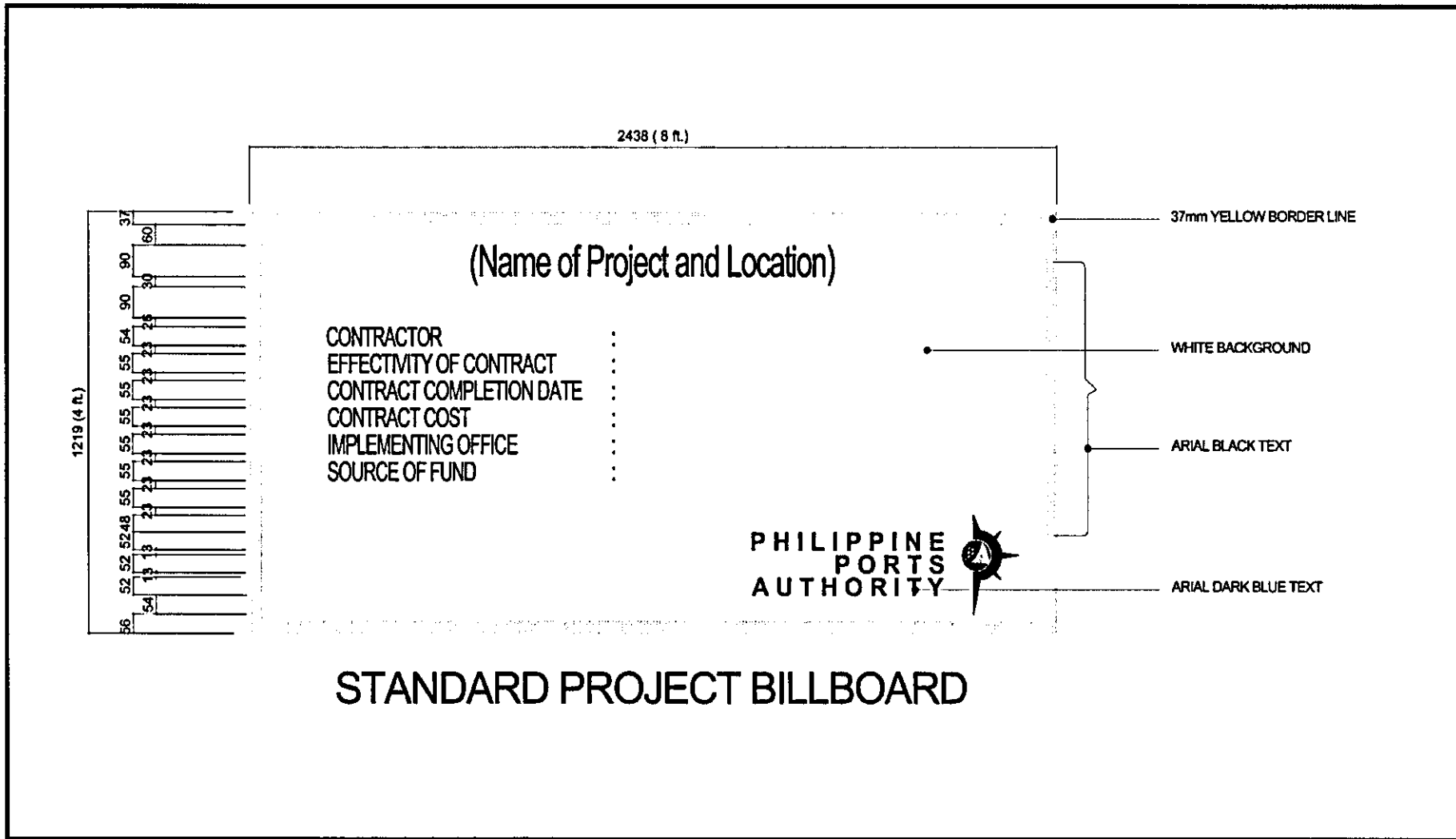
**ITEM 08 : PROJECT BILLBOARD****SPECIFICATION**

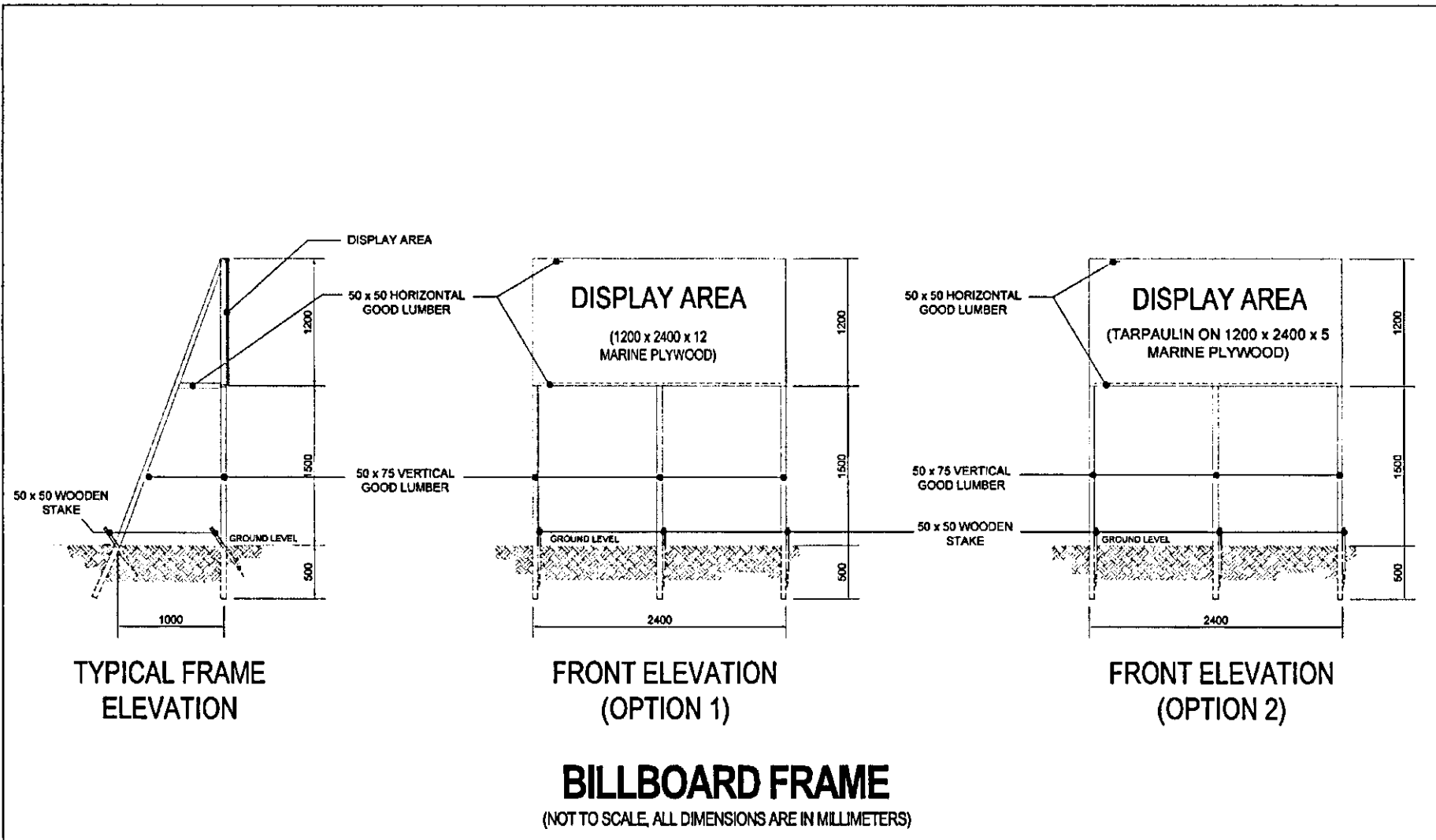
The Project Billboard shall be installed at location(s) designated by the Engineer.

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 09 : 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.

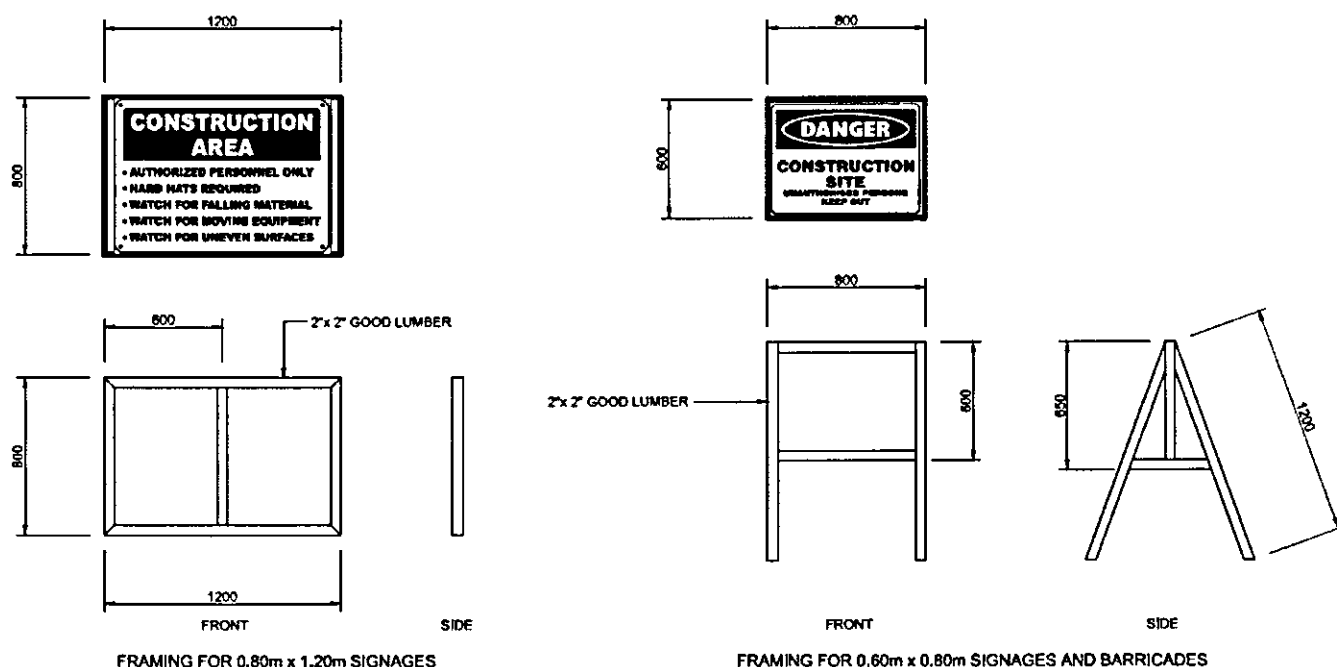
### SPECIFICATION

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.



### STANDARD PLAN FOR SIGNAGES AND BARRICADES

*SECTION VII*

*DRAWINGS  
(APPROVED PLANS)*

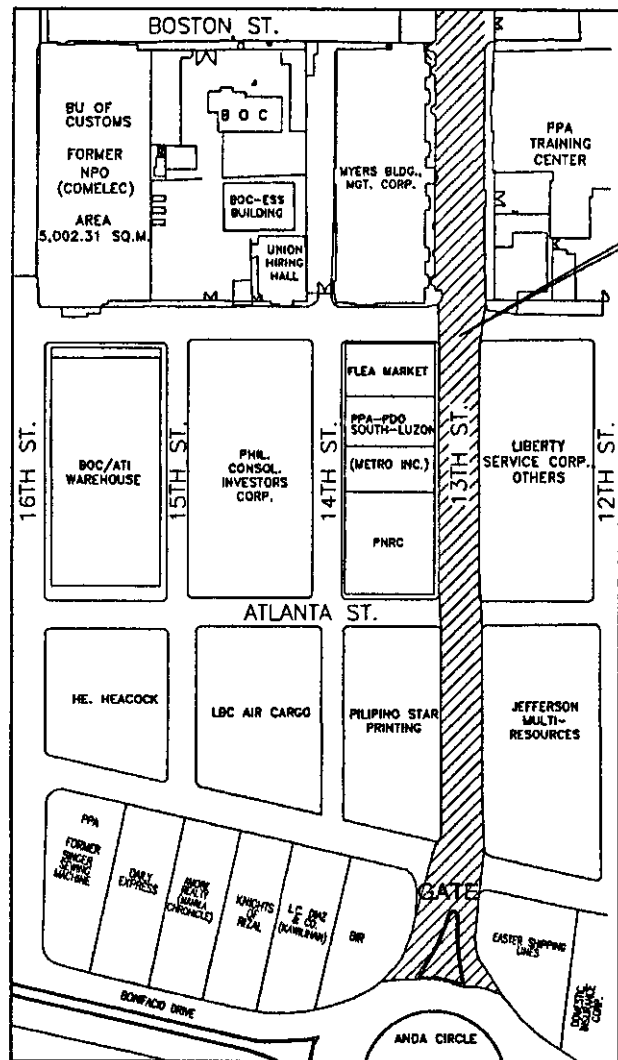
# SECTION VII

## DRAWINGS AND APPROVED PLANS

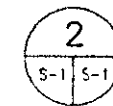
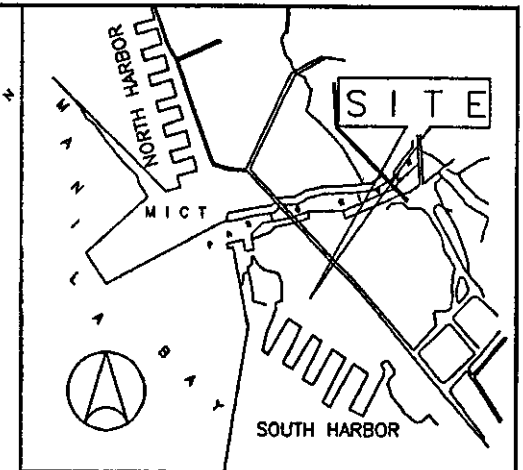
(SEE ISSUED APPROVED PLANS)

### LIST OF DRAWINGS:

- 1 of 4 - Development Plan, Vicinity Map
- 2 of 4 - Concreting Lay Out Plan
- 3 of 4 - Pavement Markings and Schedule
- 4 of 4 - Road Stud Detailed and Specification



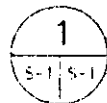
SITE



VICINITY MAP

SCALE


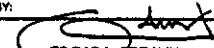
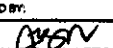


NTS

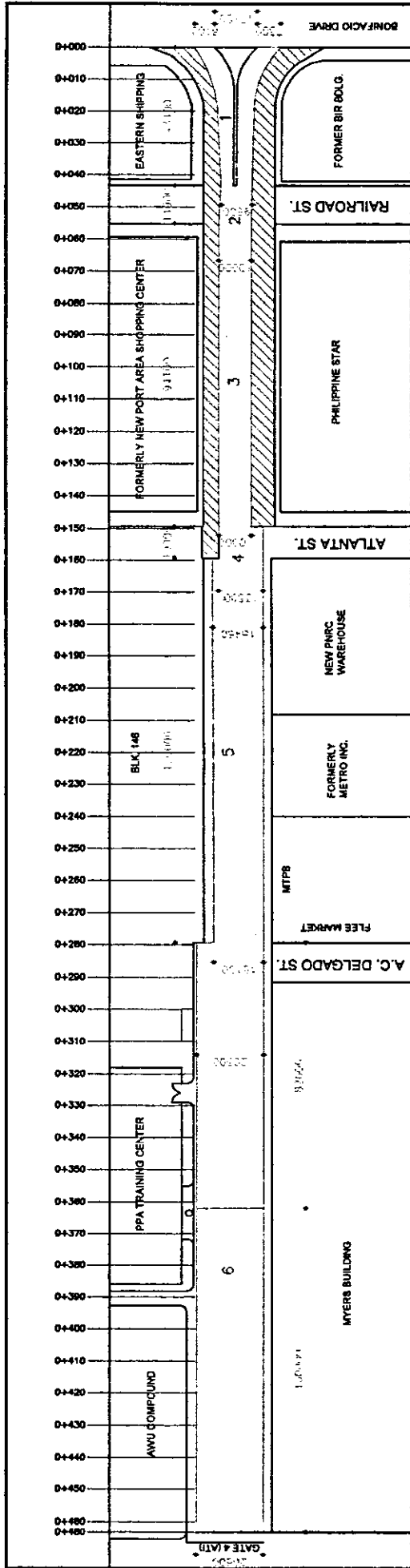


LOCATION PLAN

SCALE

NTS

 <b>REAL ESTATE MANAGEMENT DIVISION</b>	PROJECT TITLE: RESTORATION / IMPROVEMENT OF DAMAGED CONCRETE PAVEMENT , 13TH ST., SOUTH HARBOR, PORT AREA MANILA	REVIEWED AND CHECKED BY:	RECOMMENDED BY:	APPROVED BY:	SHEET NO.:
	PREPARED BY:  <b>EDGAR L. EDRALIN</b> ENGINEERING ASSISTANT - A	 <b>JANE E. GALLETO</b> ACTING PRINCIPAL ENGINEERING - A	 <b>ARNOLD B. VILLEGAS</b> MANAGER, REMD	 <b>CATHERINE R. ESTO</b> ACTING PORT MANAGER, PMA NCR SOUTH	1 4



**LEGEND:**

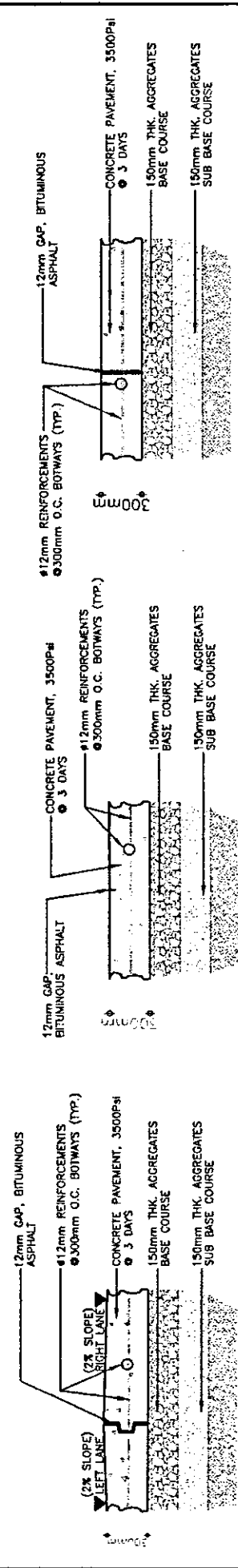
- EXISTING CONCRETE PAVEMENT
- 300mm THICK CONCRETE PAVEMENT

**1 13TH ST. CONCRETING LAYOUT PLAN**

SCALE: 1" = 5'-1"

115

A1 - 581.52 SQ.M. A5 - 1,734.00 SQ.M.  
 A2 - 114.24 SQ.M. A6 - 3,743.30 SQ.M.  
 A3 - 941.00 SQ.M.  
 A4 - 133.00 SQ.M.  
 TOTAL AREA OF ASPHALT OVERLAY - 7,443.40 SQ.M.



**CONSTRUCTION JOINT**

**CONTRACTION JOINT**

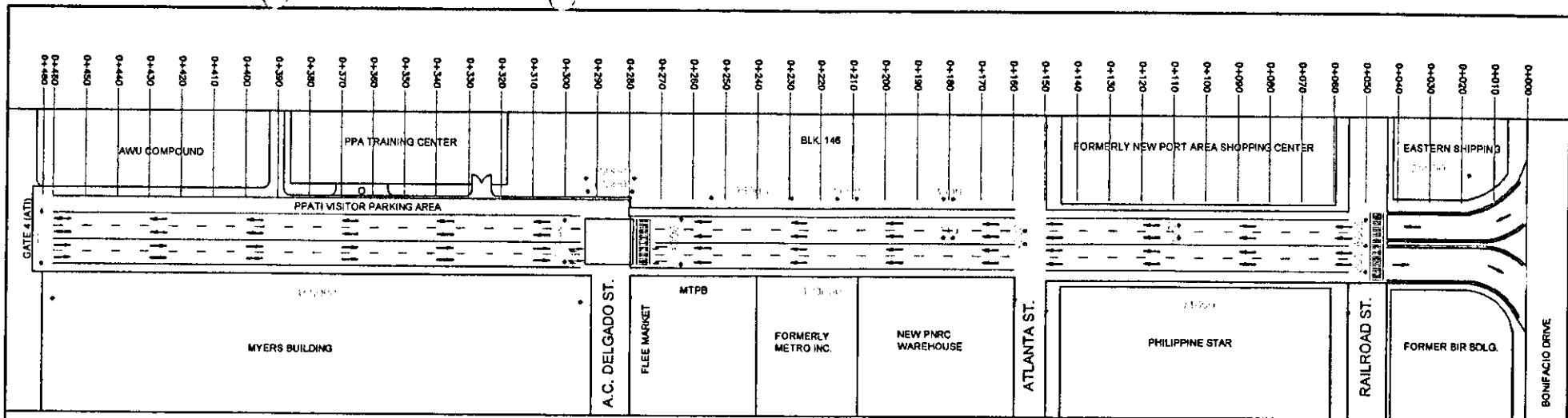
**EXPANSION JOINT**

**1 13TH ST. CONCRETING LAYOUT PLAN**

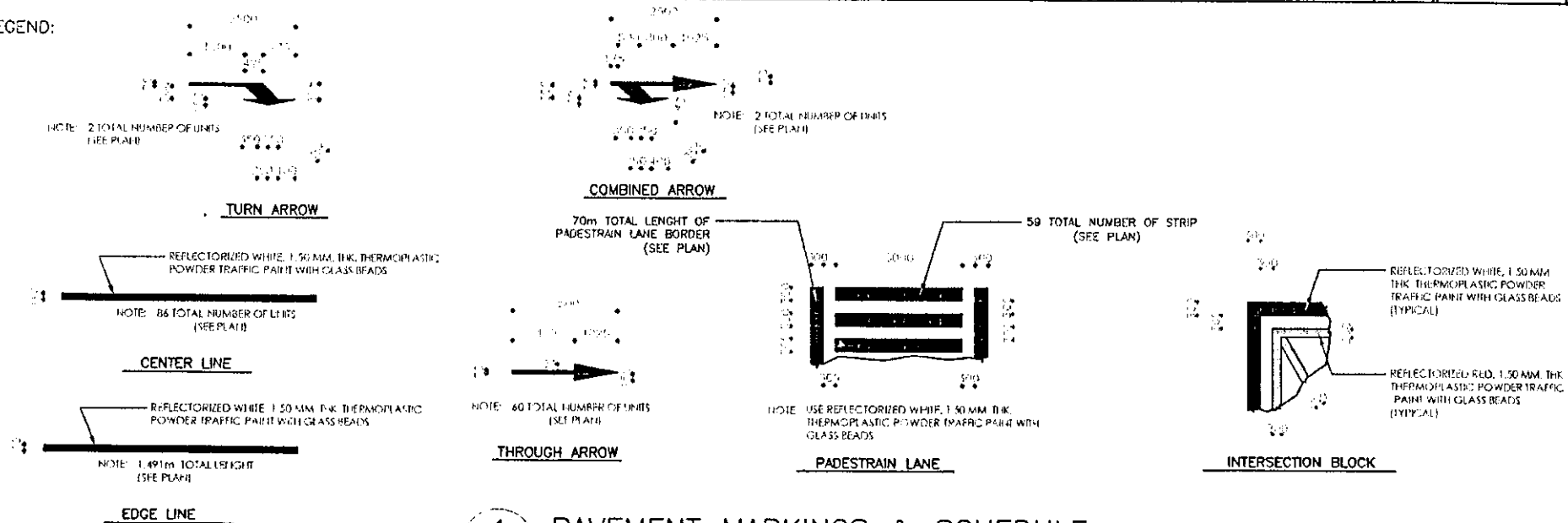
SCALE: 1" = 5'-1"

115

		<b>PROJECT TITLE:</b> RESTORATION / IMPROVEMENT OF DAMAGED CONCRETE PAVEMENT, 13TH ST., SOUTH HARBOR, PORT AREA, MANILA	
<b>PREPARED BY:</b> EDGARDO EDRAJIN ENGINEERING ASSISTANT - A	<b>REVIEWED AND CHECKED BY:</b> JANE E. CALLETO ACTING PRINCIPAL ENGINEER - A	<b>RECOMMENDED BY:</b> ARNOLD S. VALLEGAS MANAGER, RMD	<b>APPROVED BY:</b> CATHERINE R. ESTO ACTING PORT MANAGER, PHO AND NSR SOUTH
<b>REAL ESTATE MANAGEMENT DIVISION</b>		<b>SHEET NO.:</b> 2	<b>4</b>


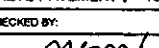
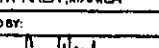
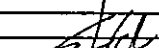


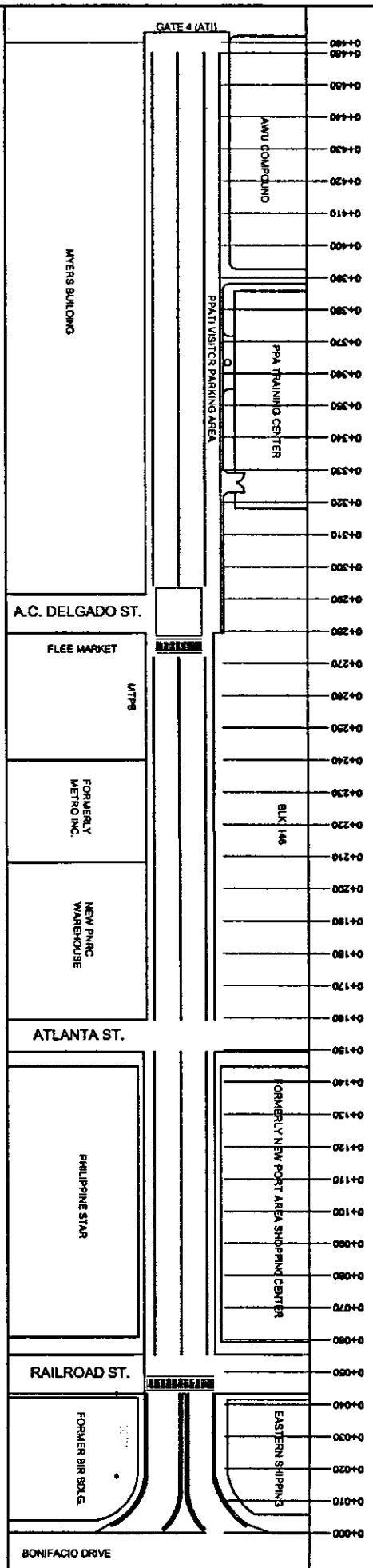
# LEGEND:



## 1 PAVEMENT MARKINGS & SCHEDULE

SCALE

<p>REAL ESTATE MANAGEMENT DIVISION</p>	<p>PROJECT TITLE: RESTORATION / IMPROVEMENT OF DAMAGED CONCRETE PAVEMENT, 13TH ST., SOUTH HARBOR, PORT AREA, MANILA</p> <p>PREPARED BY:  EDGARDO EDRALIN ENGINEERING ASSISTANT - A</p>	<p>REVIEWED AND CHECKED BY:  JANICE GALLETE ACTING PRINCIPAL ENGINEERING - A</p>	<p>RECOMMENDED BY:  ARNOLD B. VILLEGAS MANAGER, REMO</p>	<p>APPROVED BY:  CATHERINE R. ESTO ACTING PORT MANAGER, PMO NCR SOUTH</p>	<p>SHEET NO.: 3 / 4</p>
--	---	--	---	--	-------------------------



# 1 ROAD STUD LAYOUT PLAN

S-1	S-1	SCALE
-----	-----	-------

**LEGEND:**

• ROAD STUD @ EVERY 3.00 METERS  
• VIEW DETAILS

**NOTE:**

**TOTAL LENGTH = 1,311 m**


**NO. OF PCS. OF ROAD STUDS = 438 PCS.**

**SPECIFICATION:**

- |                         |  |
|-------------------------|--|
| LED                     | 6 pieces (3 by two sizes) High Intensity emitting diode  |
| LED Color               | White / Red / Yellow / Blue/ Green   |
| Flash Type              | Steady (1Hz~200Hz Adjustable)  |
| LED Brightness          | 5,000mcd / one side  |
| Dimension               | Upper Parts 137(Ø) x 8(H) mm/ on The Ground<br>Lower Parts 125(Ø) x 39(H) mm/ cylindrical parts<br>750g / unit |
| Weight                  | About 320 000 N (32Ton)  |
| Compression Load        | LiFePO <sub>4</sub> (Lithium Ion) Battery 3.2 V / 1000 mAh   |
| Storage / Type          | PCM(Protection Circuit Module)   |
| SOLAR CELL / Max.output | 4V   |

# 1 ROAD STUD DETAILED / SPECIFICATION

S-1 S-1 Si:AlE

 REAL ESTATE MANAGEMENT DIVISION	PROJECT TITLE: RESTORATION / IMPROVEMENT OF DAMAGED CONCRETE PAVEMENT, 13TH ST., SOUTH HARBOR, PORT AREA, MIAMI	SHEET NO.: 4
	PREPARED BY: <u>Edouard A. Edouard</u> EDUARDO A. EDOUARD ENGINEERING ASSISTANT - I	REVIEWED AND CHECKED BY: <u>Mark E. Goleto</u> MARK E. GOLETO ACTING PRINCIPAL ENGINEER - I
	RECOMMENDED BY: <u>James R. Esto</u> JAMES R. ESTO MANAGER, TEAM	4
	APPROVED BY: <u>James R. Esto</u> JAMES R. ESTO ACTING PORT MANAGER AND NORTHERN SOUTH	4

*SECTION VIII*

*BILL OF QUANTITIES*  
*and*  
*ATTACHMENTS*





## BID SUMMARY

### RESTORATION / IMPROVEMENT OF DAMAGED CONCRETE PAVEMENT, 13<sup>TH</sup> ST., SOUTH HARBOR, PORT AREA, MANILA

NO.	DESCRIPTION OF WORK	AMOUNT (Pesos)
1.	GENERAL EXPENSES	
2.	DAMAGED CONCRETE PAVEMENT	
3.	PAVEMENT MARKINGS	
4.	ROAD STUDS	
BID PRICE		

\_\_\_\_\_  
Name of Firm

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

\_\_\_\_\_  
Date

## BILL OF QUANTITIES

**RESTORATION / IMPROVEMENT OF DAMAGED CONCRETE PAVEMENT, 13TH ST.,  
SOUTH HARBOR, PORT AREA, MANILA**



ITEM NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
	<b>BILL NO. 1 - GENERAL EXPENSES</b>				
1.1	Mobilization/Demobilization.	lot	1.0		
1.2	Construction Safety and Health - provide construction safety and health program in the execution of the project	lot	1.00		
<b>TOTAL FOR BILL NO. 1</b>					

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

## BILL OF QUANTITIES

**RESTORATION / IMPROVEMENT OF DAMAGED CONCRETE PAVEMENT, 13TH ST.,  
SOUTH HARBOR, PORT AREA, MANILA**



ITEM NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
	<b>BILL NO. 2 - DAMAGED CONCRETE PAVEMENT</b>				
2.1	Concrete Pavement Breaking	sq.m.	7,443.40		
2.2	Excavation Works	cu.m.	2,233.02		
2.3	Sub-grade, Sub-base & Base preparation	sq.m.	7,443.40		
2.4	Steel Reinforcements (Grade 40)	kgs	83,515.00		
2.5	300mm thk PCCP (3,500 psi @ 7days)	cu.m.	2,345.00		
<b>TOTAL FOR BILL NO. 2</b>					

\_\_\_\_\_  
**Name of Bidder/Authorized Representative**  
 Signatory's Legal Capacity)

## BILL OF QUANTITIES

**RESTORATION / IMPROVEMENT OF DAMAGED CONCRETE PAVEMENT, 13TH ST.,  
SOUTH HARBOR, PORT AREA, MANILA**



ITEM NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
	<b>BILL NO. 3 - PAVEMENT MARKINGS</b>				
3.1	Pavement Markings - White	sq.m.	434.36		
3.2	Pavement Markings - Yellow	sq.m.	18.16		
<b>TOTAL FOR BILL NO. 3</b>					

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

## BILL OF QUANTITIES

**RESTORATION / IMPROVEMENT OF DAMAGED CONCRETE PAVEMENT, 13TH ST.,  
SOUTH HARBOR, PORT AREA, MANILA**



ITEM NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
4.1	<b>BILL NO. 4 - ROAD STUDS</b>  Road Studs - Installation of road studs along 13th St.	sets	438.00		
<b>TOTAL FOR BILL NO. 4</b>					

\_\_\_\_\_  
**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 1.1 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 1.2 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****DAMAGED CONCRETE PAVEMENT****Item 2.1 Concrete breaking**

The quantity to be paid for shall be the actual area in square meter of existing concrete pavement to be broken 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 2.2 Excavation Works**

The quantity to be paid for shall be the actual volume in cubic meter of all fill materials to be excavated 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 2.3 Sub base and base coarse / base preparation**

The quantity to be paid for shall be the actual area in square meter of base and sub base 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 2.4 Steel Reinforcement**

The quantity to be paid for shall be the actual weight in kilograms of reinforcing steel bars 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 2.5 300mm thk. PCCP (3,500 psi @ 7 days)**

The quantity to be paid for shall be the actual volume in cubic meter of 300mm thick PCCP (3,500 psi. @ 7days) to be supplied and set in place 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****PAVEMENT MARKINGS****Item 3.1 Pavement markings - White**

The quantity to be paid for shall be the actual area in square meter of pavement marking works based on the Bid Schedule. The contract unit price shall be full compensation for furnishing and materials, labor, equipment tools and incidentals necessary to complete the work.

**Item 3.2 Pavement markings - Yellow**

The quantity to be paid for shall be the actual area in square meter of pavement marking works based on the Bid Schedule. The contract unit price shall be full compensation for furnishing and materials, labor, equipment tools and incidentals necessary to complete the work.

**BILL NO. 4****ROAD STUDS****Item 4.1 Installation of Road Studs along 13<sup>th</sup> St.**

The quantity to be paid for shall be the actual set of solar studs to be installed along 13<sup>th</sup> St. 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.

**MINIMUM EQUIPMENT REQUIREMENTS**

1	unit/s	Hydraulic Backhoe, wheel mounted (0.80 cu.m.) Owned/Leased
1	unit/s	4" Pencil Hammer (35% of hydraulic backhoe) Owned
1	unit/s	Water pump (1,300 lpm output, 5.5hp), Owned/Leased
1	unit/s	Dump Truck (9.18-11.47 cu.m. cap.), Owned
1	unit/s	Elf Truck (2 Tons), Owned
1	unit/s	Road Grader, 125hp, Owned/Leased
1	unit/s	Vibratory Road Roller , 10 tons, Owned/Leased
1	unit/s	Water Truck (1000gal) Owned/Leased
1	unit/s	Vibratory walk behind rollers, 8.0hp Owned/leased
1	unit/s	Bar Cutter (25mm dia. min.) Owned
1	unit/s	Bar Bender (25mm dia. min.) Owned
1	unit/s	Concrete Cutter, 5hp Owned
1	unit/s	Steel Panel Form (0.30m x 1.8m) & accessories, Owned
1	unit/s	Applicator Machine, Owned/Leased
1	unit/s	Kneading Machine, Owned/Leased
1	unit/s	Core Drill 5" dia. Owned/leased
1	unit/s	Concrete Vibrator (1" shaft 1/ 3.5hp) Owned/Leased



## CONSTRUCTION SAFETY AND HEALTH REQUIREMENT

The Contractor shall implement the construction safety and health program in accordance with the applicable provisions of the Occupational Safety and Health Standards (OSHS) of the Department of Labor and Employment (DOLE).

The Contractor, subject to the approval of the Engineer shall provide and maintain throughout the duration of the contract a medical room with at least 15 square meters together with all necessary supplies to be sited in the Contractor's main area.

The Contractor shall provide the following minimum requirements:

### LABOR

1 no. Safety Engineer / Officer

### EQUIPMENT / MATERIALS

#### Personnel Protective Equipment

15	pcs	Hard Hats
30	pairs	Gloves (rubberized)
15	pairs	Safety Shoes

#### Safety Devices

1	lot	Barricades
1	lot	Warning signs
2	unit/s	Fire extinguisher (10kg)

Medical and First Aid System-	Two Hundred Forty One (241) days.
Temporary shelter for workers	- 1 lot

### NOTE:

The Contractor shall provide the above-cited minimum construction safety and health requirements or as required by the Project Engineer.

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**REVISED SCHEDULE OF MINIMUM TEST REQUIREMENTS OF  
CONSTRUCTION MATERIALS FOR PPA INFRASTRUCTURE PROJECTS**

<b>Materials/Items of Work</b>	<b>Required Tests</b>	<b>Minimum Incremental Frequency of Tests</b>
<b>I. Construction of Pier/Wharf, Platform and Ramp</b>		
<b>Structural Concrete (SC)</b>		
A Portland Cement	Quality Test	For every 2,000 bags (40kg) or fraction thereof
B Fine Aggregate	Quality Test for Grading, Elutriation (wash), Bulk Specific Gravity, Absorption, Mortar Strength, Soundness, Organic Impurities, Unit Weight, % Clay Lumps and Shale	For every 1,500 cubic meter or fraction thereof
C Coarse Aggregate	Quality Test for Grading, Bulk Specific Gravity, Absorption and Abrasion	For every 1,500 cubic meter or fraction thereof
D Water	Certificate from the Engineer or Quality Test for Density and Chloride Content	One per source
E Steel Bars	Mill Certificate and Quality Test for Chemical Composition and Mechanical Properties	For every 10,000 kg or fraction thereof
F Concrete	Compressive Strength on cylinder samples	1 set consisting of 3 concrete cylinder samples shall be taken from each day's pouring and to represent not more than 75 cu m of concrete or fraction thereof
	Slump Test	For every mix
G Admixture and Concrete Curing Materials	Quality Test	One per shipment
<b>Piling (P)</b>		
A Concrete Piles	Fabrication Report	One per fabrication
1 Concrete	Same test as for SC (F)	Same frequency as SC (F)
2 Steel Bars	Same test as for SC (E)	Same frequency as SC (E)
3 High Tension Strand	Test for Chemical Composition and Mechanical Properties	For every 20000kg or fraction thereof

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Materials/Items of Work	Required Tests	Minimum Incremental Frequency of Tests
4 Coarse Aggregates	Same Test as for SC (C)	Same frequency as SC (C)
5 Fine Aggregates	Same Test as for SC (B)	Same frequency as SC (B)
B Steel Pipe Piles	Fabrication Report, Mill Certificate and Quality Test for Chemical and Mechanical properties	One per fabrication
1 Steel	Chemical Composition (refer below) <ul style="list-style-type: none"> <li>- Under 14" (355 60mm) Outside Diameter</li> <li>- 14" to 36" (355 6 to 914mm) Outside Dia</li> <li>- Over 36" (914mm) Outside Diameter</li> </ul> Mechanical/Tensile	2 from 200 pipe or fraction thereof 2 from 100 pipe or fraction thereof 2 from 3000ft (914m) or fraction thereof One (1) tension test shall be made on one length or fraction thereof of each size, or one piece of skelp representing each lot of 200 lengths or fraction thereof of each size
2 Polyurethane Coating	Mill Certificate and Quality Test	One per fabrication
3 Concrete	Same test as for SC (F)	Same frequency as SC (F)
4 Fine Aggregate	Same test as for SC (B)	Same frequency as SC (B)
5 Coarse Aggregate	Same test as for SC (C)	Same frequency as SC (C)
6 Steel Bars	Same Test as SC (E)	Same frequency as SC (E)
7 Water	Same Test as SC (D)	Same frequency as SC (D)
Rubber Dock Fenders (RDF)	Physical Test Performance Test for Energy Absorption and Reaction Force	All units All units
Accessories Washer and Fixing Bolt, Anchor Bolt	Physical Test Quality Test for Chemical Composition and Mechanical Properties	All units One per fabrication

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<b>Materials/Items of Work</b>	<b>Required Tests</b>	<b>Minimum Incremental Frequency of Tests</b>
Mooring Bollard (MB) and Accessories (Hexagon Nuts, Plain Washer, Anchor Ring and Anchor Bolt)	Physical Test  Quality Test for Chemical Composition and Mechanical Properties	All Units  One per fabrication
<b>II. Construction of Back-Up Area, Causeway and Pavement</b>		
Sheet Piling (SP)		
A Concrete Sheet Piles		
1 Concrete	Same test as for SC (F)	Same frequency as SC (F)
2 Steel Bars	Same test as for SC (E)	Same frequency as SC (E)
3 High Tension Strands	Same test as for P (A 3)	Same frequency as P (A 3)
4 Fine Aggregates	Same test as for SC (B)	Same frequency as SC (B)
5 Coarse Aggregates	Same Test as for SC (C)	Same frequency as SC (C)
B Steel Pipe Piles		
1 Steel	Same test as for P (B1)	Same frequency as P (B1)
2 Concrete	Same test as for SC (F)	Same frequency as SC (F)
3 Fine Aggregate	Same test as for SC (B)	Same frequency as SC (B)
4 Steel Bars	Same test as for SC (E)	Same frequency as SC (E)

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<b>Materials/Items of Work</b>	<b>Required Tests</b>	<b>Minimum Incremental Frequency of Tests</b>
Rocks	Test for Apparent Specific Gravity and Abrasion	For every 1,500 cubic meter or fraction thereof
Geotextile Filter	Physical and Mechanical Test Mill Certificate	One per batch One per batch
Sand and Gravel Fill	Quality Test for Organic Impurities and Grading	For every 1,500 cubic meter or fraction thereof
Selected Fill	Quality Test for Grading, Plasticity and Laboratory Compaction Test Laboratory California Bearing Ratio (CBR) Field Density Test	For every 1,500 cubic meter or fraction thereof For every 2,500 cubic meter or fraction thereof For every layer of 150mm of compacted depth at least one group of three in-situ density test for every 500 sq m or fraction thereof
Aggregate Base Course	Quality Test for Grading and Plasticity Quality Test for Grading, Plasticity, Abrasion and Laboratory Compaction Test Laboratory California Bearing Ratio (CBR) Field Density Test	For every 300 cubic meter or fraction thereof For every 1,500 cubic meter or fraction thereof Same frequency as Selected Fill Same frequency as Selected Fill
Portland Cement Concrete Pavement (PCCP)		
A Portland Cement	Same test as for SC (A)	Same frequency as SC (A)
B Fine Aggregate	Same test as for SC (B)	Same frequency as SC (B)
C Coarse Aggregate	Same test as for SC (C)	Same frequency as SC (C)
D Water	Same test as for SC (D)	Same frequency as SC (D)
E Steel Bars (Dowels)	Same test as for SC (E)	Same frequency as SC (E)
F Joint Filler	Quality Test	One (1) per shipment

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<b>Materials/Items of Work</b>	<b>Required Tests</b>	<b>Minimum Incremental Frequency of Tests</b>
G Admixture and Concrete Curing Material	Same test as for SC (G)	Same frequency as SC (G)
H Concrete	Same test as for SC (F) Flexural Test	Same frequency as SC (F) 3 beam samples for every 330 sq m or fraction thereof
I Completed Pavement	Core Test	1 set (3 specimen) for every 2,500 sq m and fraction thereof
Interlocking Concrete Blocks		
A Cement	Same test as for SC (A)	Same frequency as SC (A)
B Fine Aggregate	Same test as for SC (B)	Same frequency as SC (B)
C Coarse Aggregate	Same test as for SC (C)	Same frequency as SC (C)
D Water	Same test as for SC (D)	Same frequency as SC (D)
E Admixture & Concrete Curing Materials	Same test as for SC (G)	Same frequency as SC (G)
F Completed Blocks	Physical Test and Compressive Strength	6 blocks per day of fabrication
Cement Treated Base Course (CTB)		
A Portland Cement	Same test as for SC (A)	Same frequency as SC (A)
B Fine & Coarse Aggregates	Quality Test for Grading, Abrasion and Soundness	For every 1,500 cubic meter or fraction thereof
C Water	Same test as for SC (D)	Same frequency as SC (D)
D Completed CTB	Field Density Test	For every layer of 150mm of compacted depth at least one group of three in-situ density test every 500 sq m or fraction thereof
Retaining Wall/Coping Wall/RC Curb/RC Ditch/Shear Key/Concrete Blocks/Lean Concrete		
A Portland Cement	Same test as for SC (A)	Same frequency as SC (A)
B Fine Aggregate	Same test as for SC (B)	Same frequency as SC (B)

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<b>Materials/Items of Work</b>	<b>Required Tests</b>	<b>Minimum Incremental Frequency of Tests</b>
C Coarse Aggregates	Same test as for SC (C)	Same frequency as SC (C)
D Water	Same test as for SC (D)	Same frequency as SC (D)
E Steel Bars	Same test as for SC (E)	Same frequency as SC (E)
F Admixture and Concrete Curing	Same test as for SC (G)	Same frequency as SC (G)
G Concrete	Same test as for SC (F)	Same frequency as SC (F)
Tie Rod		
A Steel	Same test as for SC (E)	One per batch
B Assembly	Performance Test (Tension)	One per batch
Tie Bars and Dowels	Same test as for SC (E)	For every 10,000 kg or fraction thereof per Tie bars and Dowels
Pipe Culverts and Storm Drains		
A Pipes	Test for Strength, Absorption and Physical	For every 50 pieces
B Mortar or Joint	Same Test as for SC (A,B and D) Alternative Test Same test as for SC (F) and Inspection Report	For every 25 pieces
Concrete Hollow Blocks		
A Portland Cement	Same test as for SC (A)	Same frequency as SC (A)
B Fine Aggregates	Same test as for SC (B)	Same frequency as SC (B)
C Water	Same test as for SC (D)	Same frequency as SC (C)
D Concrete	Same test as for SC (F)	Same frequency as SC (F)
E Completed CHB	Quality Test	One for every 500 pieces or fraction thereof
Construction Joints (CJ)		
A Angle Bars	Test for Physical and Mechanical Properties	One per batch
B Steel Bars	Same test as for SC (E)	One per batch
C Zinc (Hot Dip Galvanizing) Coatings	Physical Test for Appearance, Stripping, Weighing, Adherence and Adhesion  Coating Thickness Magnetic Thickness Measurement	All units  1 set (3 specimen) for every 100,000 sq mm. or fraction thereof

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<b>Materials/Items of Work</b>	<b>Required Tests</b>	<b>Minimum Incremental Frequency of Tests</b>
<b>Sacked Concrete</b>		
A Cement	Same test as for SC (A)	Same frequency as SC (A)
B Fine Aggregates	Same test as for SC (B)	Same frequency as SC (B)
C Coarse Aggregates	Same test as for SC (C)	Same frequency as SC (C)
D Water	Same test as for SC (D)	Same frequency as SC (D)
E Concrete	Same test as for SC (F)	Same frequency as SC (F)
F Sack (jute)	Physical Test	One for every 50 pieces
<b>Rubble Concrete</b>		
A Cement	Same test as for SC (A)	Same frequency as SC (A)
B Fine Aggregates	Same test as for SC (B)	Same frequency as SC (B)
C Coarse Aggregates	Same test as for SC (C)	Same frequency as SC (C)
D Water	Same test as for SC (D)	Same frequency as SC (D)
E Concrete	Same test as for SC (F)	Same frequency as SC (F)
F Rocks	Same test as for ROCKS	Same frequency as ROCKS
<b>Earthworks</b>		
A Sub-grade preparation	Grading Test Plasticity Test (LL, PL, PI) Laboratory Compaction Test  Density Test	For every 1,500 cubic meter or fraction thereof  For every layer of 150mm of compacted depth at least one group of three In-situ density test every 500 sq m. or fraction thereof
B Structure Excavation	If excavated materials shall be used as Backfill Grading Test Plasticity Test (LL, PL, PI) Laboratory Compaction Test  Density Test	For every 1,500 cubic meter or fraction thereof  For every layer of 150mm of compacted depth at least one group of three In-situ density test every 500 sq m. or fraction thereof

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<b>Materials/Items of Work</b>	<b>Required Tests</b>	<b>Minimum Incremental Frequency of Tests</b>
<b>III Port Operations Building/Passenger Terminal Building/Transit Shed/Warehouse</b>		
<b>STRUCTURAL WORKS</b>		
Refer to Structural Concrete (SC) and Piling Works (P)		
<b>ARCHITECTURAL WORKS</b>		
Ceramic – Filled Liquid Membrane / Water Proofing, Hydrophobic Poreblocking Ingredients with Superplasticizer	Physical Property, Mechanical and Chemical Property, Leak Test / Flood Test	One per shipment
Paint	Quality Test	One 4-L can for every 100 cans or fraction thereof
Ceramic Tile	Inspection and Evaluation Report from the Engineer	One per shipment
Stainless Steel	Inspection and Evaluation Report from the Engineer	One per shipment
Roofing Materials	Inspection and Evaluation Report from the Engineer	One per shipment
Ceiling Materials	Inspection and Evaluation Report from the Engineer	One per shipment
<b>ELECTRICAL AND MECHANICAL WORKS</b>		
Wires / Cables	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per shipment
Electrical Devices	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per shipment
Fire Alarm System	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
Wiring Devices	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per shipment

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Materials/Items of Work	Required Tests	Minimum Incremental Frequency of Tests
Protective Devices	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per shipment
Telephone System	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
CCTV System	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
CATV System	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
Background Music and Paging System	Inspection and Evaluation Report from the Engineer, Testing and Commissioning	One per item
Air Conditioning Units & Ventilation	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
Conduit Pipes	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
Lighting Fixtures	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
<b>PLUMBING WORKS</b>		
Pipes	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item

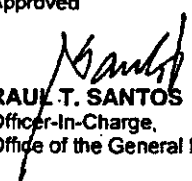
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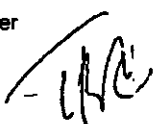
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Materials/Items of Work	Required Tests	Minimum Incremental Frequency of Tests
Fixtures	Inspection and Evaluation Report from the Engineer Testing and Commissioning	One per item
Pipe Culverts	Compression Strength Inspection and Evaluation Report from the Engineer	For every size not more than 25 pipes cast in the field
<b>IV Miscellaneous Materials</b> Fencing A Barbed Wire, Cyclone Wire Mesh, Chain Link B Concrete Post	Physical Test (Dimensions and Coatings) Refer to Superstructure (SC)	One per Batch Refer to Superstructure (SC)
Lamp Post A Structural Steel B Zinc (Hot Dip Galvanizing) Coatings	Physical Test (Dimensions) Same test as for SC (E) Same test as for CJ (C)	All units One per batch
Drainage Steel Grating	Same test as for SC (E) Inspection Report	One (1) batch
Metal Pipe (Cast Iron Galvanized, etc )	Physical Test (Dimensions and Coatings)	1 per delivery
Welding Works	Destructive and Non Destructive Test	One (1) per lot

- NOTES**
1. Testing of RDF shall be performed only by an independent Testing Laboratory duly accredited by BRS, DOST and PPA
  2. Testing of other materials shall be performed only by an independent Testing Laboratory duly accredited by BRS and PPA.
  3. All other issuances which are otherwise inconsistent herewith are hereby revoked or otherwise amended.

Approved

  
**RAUL T. SANTOS**  
Officer-In-Charge,  
Office of the General Manager



## *SECTION IX*

# *CHECKLIST OF TECHNICAL AND FINANCIAL DOCUMENTS*

# Checklist of Technical and Financial Documents

## I. TECHNICAL COMPONENT ENVELOPE

### *Class "A" Documents*

#### Legal Documents

- ☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages)

#### Technical Documents

- ☐ (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- ☐ (c) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**
- ☐ (d) Special PCAB License in case of Joint Ventures; **and** registration for the type and cost of the contract to be bid; **and**
- ☐ (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;  
**or**  
Original copy of Notarized Bid Securing Declaration; **and**
- ☐ (f) Project Requirements, which shall include the following:
  - ☐ a. Organizational chart for the contract to be bid;
  - ☐ b. List of contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
  - ☐ c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**
- ☐ (g) Original duly signed Omnibus Sworn Statement (OSS); **and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

#### Financial Documents

- ☐ (h) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

### *Class "B" Documents*

- ☐ (i) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;  
**or**  
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

## II. FINANCIAL COMPONENT ENVELOPE

- ☐ (j) Original of duly signed and accomplished Financial Bid Form; and

*Other documentary requirements under RA No. 9184*

- ☐ (k) Original of duly signed Bid Prices in the Bill of Quantities; and
- ☐ (l) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; and
- ☐ (m) Cash Flow by Quarter.

***SECTION X***  
***BIDDING FORM***

## Bid Form for the Procurement of Infrastructure Projects

*[shall be submitted with the Bid]*

### BID FORM

Date : \_\_\_\_\_  
Project Identification No. : \_\_\_\_\_

To: **Philippine Ports Authority**  
PPA Building, Bonifacio Drive,  
South Harbor, Port Area, Manila

Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers \_\_\_\_\_, the receipt of which is hereby duly acknowledged, we, the undersigned, declare that:

- a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: **Restoration/Improvement of Damaged Concrete Pavement, 13<sup>th</sup> St., South Harbor, Port Area, Manila;**
- b. We offer to execute the Works for this Contract in accordance with the PBDs;
- c. The total price of our Bid in words and figures, excluding any discounts offered below is: \_\_\_\_\_;
- d. The discounts offered and the methodology for their application are: \_\_\_\_\_;
- e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties]*, which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of \_\_\_\_\_ percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines<sup>1</sup> for this purpose;
- h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing

<sup>1</sup> currently based on GPPB Resolution No. 09-2020



contract for the **Restoration/Improvement of Damaged Concrete Pavement, 13<sup>th</sup> St., South Harbor, Port Area, Manila** of the **Philippine Ports Authority**.

- I. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name: \_\_\_\_\_

Legal Capacity: \_\_\_\_\_

Signature: \_\_\_\_\_

Duly authorized to sign the Bid for and behalf of: \_\_\_\_\_

Date: \_\_\_\_\_

# STATEMENT OF THE BIDDER'S ALL ONGOING GOVERNMENT AND PRIVATE CONTRACTS, INCLUDING CONTRACTS AWARDED BUT NOT YET STARTED

I hereby declare that all ongoing contracts, including awarded contracts yet to be started coinciding with the contract to be bid are listed below:

Name of outstanding Contracts 1]	Owner's Name and Address	Scope of Work 2]	Contractor's Role and Percentage of Participation 3]	Total Contract Amount or Value 4]	Date of Contract and NOA 5]	Value of Outstanding Works 6]	Accomplishment (in percentage, %) 7]		Contract Duration 8]	
							Planned	Actual	Start of Project	Estimated Completion Date
A) Government Contracts i. On-going ii. Awarded but not yet started  B) Private Contracts i. On-going ii. Awarded but not yet started										

## NOTE:

- 1] As appearing in the contract executed by the parties.
- 2] With special reference to the Scope of Works of the Project as described/enumerated in the Contract.
- 3] Indicate the percentage of participation and whether as Sole Contractor, Sub-Contractor or Member in a Joint Venture / Consortium.
- 4] Indicate the FOREX used if Contract Value is expressed in a currency other than the Philippine Peso.
- 5] As appearing in the Contract and Notice of Award (NOA).
- 6] Amount or value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract to be bid.
- 7] Percentage of Accomplishment as of the preceding month which should not be earlier than two (2) months from the date of bid submission.
- 8] As appearing in the Notice to Proceed and Contract.

This Statement shall be supported by:

- a) Notice of Award
- b) Notice to Proceed and Contract

\_\_\_\_\_  
Name of Firm

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

\_\_\_\_\_  
Date

Revised: September 2021

**STATEMENT OF THE BIDDER'S SINGLE LARGEST COMPLETED CONTRACT (SLCC) SIMILAR TO THE CONTRACT TO BE BID**

Name of the completed Contract  1]	Owner's Name and Address	Scope of Work  2]	Contractor's Role and Percentage of Participation  3]	Total Contract Value At 4]			Date of Award  5]	Contract Duration 6]	
				Award	Completion	Escalated Value to Present Prices		Start	Completed

**NOTE :**

- 1] As appearing in the contract executed by the parties.  
 2] With special reference to the Scope of Works of the Project as described/enumerated in the Contract.  
 3] Indicate the percentage of participation and whether as Sole Contractor, Sub-Contractor or Member in a Joint Venture / Consortium.  
 4] Indicate the FOREX used if Contract Value is expressed in a currency other than the Philippine Peso. Attached the computation for the escalated contract value.  
 5] As appearing in the Notice of Award.  
 6] As appearing in the Notice to proceed and Certificate of Completion.
- A. The bidder must have an experience of having completed a SLCC that is similar to the contract to be bid equivalent to at least fifty percent (50%) of the ABC, adjusted if necessary, by the Bidder to current prices using the PSA consumer price indices. A contract is considered to be "similar" to the contract to be bid if it has the same Major Categories of Work as stated in the Bid Data Sheet (BDS).
- B. This Statement shall be supported by:
- Notice of Award, Notice to Proceed and Contract.
  - Project Owner's Certificate of Final Acceptance issued by the owner and/ or Constructors Performance Evaluation System (CPES) Final Rating, which must be at least Satisfactory. The said Certificate of Acceptance shall contain the following: 1) Name of project owner that issued the certificate, 2) Name of Contractor/ Constructor, 3) Name of Contract, and 4) Contract Duration.
  - Recapitulation or Final Bill of Quantities.

\_\_\_\_\_  
Name of Firm\_\_\_\_\_  
Name of Bidder/Authorized Representative  
(Signatory's Legal Capacity)\_\_\_\_\_  
Date

**STATEMENT OF THE BIDDER'S EXPERIENCE ON MAJOR CATEGORIES OF WORK OF THE SLCC INCLUDING OTHER COMPLETED CONTRACTS SIMILAR TO THE CONTRACT TO BE BID**

Major Categories of Work 1]	Unit of Measure 1]	Quantity 1]	SLCC similar to the contract to be bid 2]	Other completed contracts similar to the contract to be bid 2]				Unit of Measure 2]	Quantity 2]
			Name of the contract	Name of the contract	Name of the contract	Name of the contract			
1. 300mm thk PCCP (3,500psi @7days)	cu.m.	1,173							

**NOTE:**

1] As stated in the Bid Data Sheet.

2] As appearing in the Recapitulation and/ or Final Bill of Quantities.

This statement shall be supported by:

- a. Notice of Award, Notice to Proceed and Contract.
- b. Project Owner's Certificate of Final Acceptance issued by the owner and/ or Constructors Performance Evaluation System (CPES) Final Rating, of at least satisfactory. The said Certificate of Acceptance shall contain the following: 1) Name of project owner that issued the certificate, 2) Name of Contractor/Constructor, 3) Name of Contract, and 4) Contract Duration.
- c. Recapitulation and/ or Final Bill of Quantities.

\_\_\_\_\_  
Name of Firm

\_\_\_\_\_  
Name of Bidder/Authorized Representative  
Signatory's Legal Capacity

\_\_\_\_\_  
Date

## FINANCIAL DATA

- A. The prospective bidder's audited Financial Statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "RECEIVED" by the Bureau of Internal Revenue (BIR), or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission.

	Year
1. Total Assets	
2. Current Assets	
3. Total Liabilities	
4. Current Liabilities	
5. Net worth (1-3)	
6. Net Working Capital (2-4)	

- B. The computation of the bidders Net Financial Contracting Capacity (NFCC) must be at least equal to the ABC to be bid, as follows:

NFCC = [ (Current assets minus current liabilities) (15) ] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract to be bid.

NFCC = \_\_\_\_\_

Attached herewith are certified true copies of the audited financial statements stamped received by the BIR or BIR authorized collecting agent for the latest/immediately preceding calendar year.

\_\_\_\_\_  
Name of Firm/Applicant

\_\_\_\_\_  
Authorized Signing Official

Date: \_\_\_\_\_

**NOTES:**

If Partnership or Joint Venture, each Partner or Member Firm of Joint venture shall submit separate financial statements.

### STATEMENT OF THE BIDDER'S KEY PERSONNEL PLEDGED FOR THE CONTRACT TO BE BID

I hereby declare that the following key personnel are qualified and available for the duration of the contract to be bid:

Position of Key Personnel 1]	Name	No. of Key Personnel	Similar Experience in the Position (Years) 2]	Total Experience in the Position (Years)	Attachment(s)	Annex(es)
Project Manager					PRC License (CE Preferred) Complete Qualification and Experience Data Certificate of Commitment	Annex " _ "
Project Engineer					PRC License (CE Preferred) Complete Qualification and Experience Data Certificate of Commitment	Annex " _ "
Materials Engineer I					PRC License (CE Preferred) Submit Valid and Renewed DPWH Certificate of Accreditation Submit Accreditation Identification Card as Materials Engineer Complete Qualification and Experience Data Certificate of Commitment	Annex " _ "
Construction Safety and Health Officer					Certificate of Safety and Health Construction Related Course issued by DOLE Accredited Trainings Complete Qualification and Experience Data Certificate of Commitment	Annex " _ "
Foreman					Complete Qualification and Experience Data Certificate of Commitment	Annex " _ "
Other Position(s)					Complete Qualification and Experience Data Certificate of Commitment	Annex " _ "

**NOTE:** 1] As stated in the Bid Data Sheet

2] The number of years of experience of the key personnel shall be as indicated in the qualification and experience data or curriculum vitae.

Minimum qualification requirements: The key personnel must have a work experience that is similar in nature and complexity to the contract to be bid.

Project Manager - Five (5) years

Materials Engineer – One (1) year

Project Engineer - Three (3) years

Materials Engineer I – for projects costing up to 100M

Foreman - Five (5) years

Materials Engineer II – for projects costing more than 100M

Construction Safety and Health Officer – One (1) year

\_\_\_\_\_  
Name of Firm

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

\_\_\_\_\_  
Date

### STATEMENT OF THE BIDDER'S EQUIPMENT PLEDGED FOR THE CONTRACT TO BE BID

I hereby declare that the following equipment are in good operating condition and available for the duration of the contract to be bid:

DESCRIPTION (Type, Model, Make)	No. of Unit(s)	Capacity/ Output  1]	Owned, Leased, and/or under purchased agreement 2]	Proof of Ownership/ Leased/ Under Purchase Agreement (Mark as Annex "A.....Z") 3]	OTHER INFORMATION (As Applicable)				
					Manufacturer	Engine Serial No.	Chassis No./ Name of Vessel	Location	Status

**NOTE:**

- 1] The unit of capacity of the pledged equipment shall be as indicated in the Proof of Ownership, i.e. GW (for crane barge), DWT (for deck barge and hopper barge), Ton (for crane, road roller and drop hammer), kg.-m/blow (for diesel hammer), cu.m. (for dump truck), hp (for tugboat, road grader, bulldozer and concrete vibrator), cfm (for compressor), gal (for water truck with pump), amp (for welding machine), bagger (for concrete mixer). If the capacity of the pledged equipment is not indicated in the Proof of Ownership/Leased Contract/Purchased Agreement, submit other proof of capacity such as specifications, brochures or other verifiable printouts indicating the model name, model number and other details of the equipment.
- 2] Indicate if the pledged equipment are owned, leased or under purchase agreement.
- 3] If the pledged equipment is owned, it should be in the name of the bidder. Submit proof of ownership, i.e. deed of sale, sales invoice, official receipt; For owned Water Truck, Dump Truck and Transit Mixer submit LTO Certificate of Registration and valid Official Receipt; For owned barge/tugboat, submit Marina Certificate of Ownership and valid Cargo Ship Safety Certificate.

If the pledged equipment is leased/under purchased agreement, submit certification of availability of equipment from the equipment lessor/vendor for the duration of the project, and duly Notarized copy of leased contract/purchased agreement.

If the pledged barge/tugboat is leased/under purchase agreement, submit certification of availability of barge/tugboat from the equipment lessor/vendor for the duration of the project, and duly Notarized copy of leased contract/purchased agreement together with a copy of the Marina Certificate of Ownership and valid Cargo Ship Safety Certificate.

The Minimum Major Equipment Requirements are listed in Section 8, Annex 3.

\_\_\_\_\_  
Name of Firm

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

\_\_\_\_\_  
Date

**Omnibus Sworn Statement for Sole Proprietorship**  
*[shall be submitted with the Bid]*

REPUBLIC OF THE PHILIPPINES )  
CITY/MUNICIPALITY OF \_\_\_\_\_ ) S.S.

**AFFIDAVIT**

I, \_\_\_\_\_, of legal age, [Civil Status], [Nationality], and residing at \_\_\_\_\_, after having been duly sworn in accordance with law, do hereby depose and state that:

1. I am the sole proprietor or authorized representative of \_\_\_\_\_ with office address at \_\_\_\_\_;
2. As the owner and sole proprietor, or authorized representative of \_\_\_\_\_, I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for **Restoration/Improvement of Damaged Concrete Pavement, 13<sup>th</sup> St., South Harbor, Port Area, Manila of the Philippine Ports Authority**, as shown in the attached duly notarized Special Power of Attorney;
3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**
4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;
6. The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;
7. [Name of Bidder] complies with existing labor laws and standards; and
8. [Name of Bidder] is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
  - a. Carefully examining all of the Bidding Documents;
  - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
  - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
  - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].



9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_ day of \_\_\_, 20\_\_ at \_\_\_\_\_, Philippines.

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

[Jurat]  
*[Format shall be based on the latest Rules on Notarial Practice]*

**Omnibus Sworn Statement for Partnership or Cooperative**  
*[shall be submitted with the Bid]*

REPUBLIC OF THE PHILIPPINES )  
CITY/MUNICIPALITY OF \_\_\_\_\_ ) S.S.

**AFFIDAVIT**

I, \_\_\_\_\_, of legal age, [Civil Status], [Nationality], and residing at \_\_\_\_\_, after having been duly sworn in accordance with law, do hereby depose and state that:

1. I am the duly authorized and designated representative of \_\_\_\_\_ with office address at \_\_\_\_\_;
2. I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for **Restoration/Improvement of Damaged Concrete Pavement, 13<sup>th</sup> St., South Harbor, Port Area, Manila of the Philippine Ports Authority**, as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];
3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**
4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;
6. None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;
7. [Name of Bidder] complies with existing labor laws and standards; and
8. [Name of Bidder] is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
  - a. Carefully examining all of the Bidding Documents;
  - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
  - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
  - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].

9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_ day of \_\_, 20\_\_ at \_\_\_\_\_, Philippines.

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

**[Jurat]**  
*[Format shall be based on the latest Rules on Notarial Practice]*

**Omnibus Sworn Statement for Corporation or Joint Venture**  
*[shall be submitted with the Bid]*

REPUBLIC OF THE PHILIPPINES )  
CITY/MUNICIPALITY OF \_\_\_\_\_ ) S.S.

**AFFIDAVIT**

I, \_\_\_\_\_, of legal age, [Civil Status], [Nationality], and residing at \_\_\_\_\_, after having been duly sworn in accordance with law, do hereby depose and state that:

1. I am the duly authorized and designated representative of \_\_\_\_\_ with office address at \_\_\_\_\_;
2. I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for **Restoration / improvement of damaged concrete pavement at 13<sup>th</sup> St., South Harbor, Port Area, Manila of the Philippine Ports Authority**, as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];
3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**
4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;
6. None of the officers, directors, and controlling stockholders of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;
7. [Name of Bidder] complies with existing labor laws and standards; and
8. [Name of Bidder] is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
  - a. Carefully examining all of the Bidding Documents;
  - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
  - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
  - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].

9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_ day of \_\_\_, 20\_\_ at \_\_\_\_\_, Philippines.

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

**[Jurat]**

*[Format shall be based on the latest Rules on Notarial Practice]*

## **Bid Securing Declaration Form**

*[shall be submitted with the Bid if bidder opts to provide this form of bid security]*

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REPUBLIC OF THE PHILIPPINES)  
CITY OF \_\_\_\_\_) S.S.

### **BID SECURING DECLARATION** **Project Identification No.:** \_\_\_\_\_

To: **Philippine Ports Authority**  
PPA Building, Bonifacio Drive,  
South Harbor, Port Area, Manila

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
  - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
  - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
  - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this \_\_\_\_ day of [month] [year] at [place of execution].

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

**[Jurat]**

*[Format shall be based on the latest Rules on Notarial Practice]*

## CONSTRUCTION METHODOLOGY

Name of Project : RESTORATION / IMPROVEMENT OF DAMAGED  
CONCRETE PAVEMENT

Project Description : CONCRETING OF PAVEMENT

Location : 13<sup>th</sup> ST., SOUTH HARBOR, PORT AREA, MANILA

### MINIMUM SCOPE OF CONSTRUCTION METHODOLOGY

Immediately after all materials to be used in the project have passed the minimum testing requirements based on the standard specifications for DPWH, The manner of operation in this particular project shall have the following sequence:

- I. Mobilization shall consist of mobilization of equipment and manpower, materials and other items that shall be use in the implementation of the project. All cement materials shall be stored immediately upon delivery at site, in a weather proof building which will protect the cement from dampness. The floor shall be raised from the ground by 4 inches. Demobilization follows only after the project was finally accepted and the surroundings are properly cleaned
- II. Project billboards and all signages shall be place at designated locations approved by the Project Engineer to warn the commuting public of the on-going projects. Warning devices shall be reflectorized specially at night to prevent accident.
- III. Other general requirements shall be provided by the contractor and shall maintain such offices, stores, workshop latrines and messing accommodations as are necessary. These should be located at the contractor's compound, distinct and separate from Engineers compound. The dimensions and layout of the building and places shall be subject to the approval of the project engineer. The contractor shall provide and maintain throughout the duration of the contract.
- IV. Roadway excavation shall consist of roadway, drainage borrow excavation is in accordance with the specifications and in conformity with the lines, grades and dimensions shown on the plans or establish by the Project Engineer. All excavated materials in excess for embankment shall be properly disposed at the location approved by the Project Engineer.
- V. Structure excavation shall consist of the necessary excavation work for lined canals. The backfilling of completed structures and the disposal of excavated surplus materials shall be in accordance with the specifications and in reasonably close conformity with the plans or as established by the Project Engineer. Trenches or foundation pits for structures structure footings shall be excavated to the lines and grades or elevations shown on the plans or as staked by the Project Engineer. They shall be sufficient size to permit the placing of structures of the whole width and length shown on the plan.
- VI Subgrade preparation shall consist of preparation of subgrade for the support of overlying structural layers. It shall extend to the full width of the roadway. Unless authorized by the Project Engineer, subgrade preparation shall not be done unless the contractor is able to start immediately the construction of the pavement structure.

- VII. Construction of embankment from roadway excavation shall be in accordance with the specifications and in conformity with the lines, grades and dimensions shown on the plans. Earth materials shall be placed in horizontal layers not exceeding 200mm, loose measurement and shall be compacted as specified before the second layer is placed. However thicker layer may be placed if vibratory layer with high compactive effort is used provided that density requirement is attained conducted and approved by the Project Engineer watering is compulsory during compaction to attain its maximum density.
- VIII. Construction of aggregate subbase course shall consists of furnishing, placing and compacting an aggregate sub base course on prepared subgrade in accordance with the specification and the lines, grades and cross sections shown on the plans or as directed by the Project Engineer. The aggregate sub base materials shall be placed at a uniform mixture on a prepared sub grade in a quantity which will provide the required compacted thickness. When more than one layer is required, each layer shall be shaped and compacted before the succeeding layer is placed. Where the required thickness is 200mm. the materials shall be spread in two layers of approximately two equal thickness. The moisture content of sub base material shall, if necessary, be adjusted prior to compaction by watering with approved sprinklers mounted on trucks or by drying out, as required in order to attain the required compaction until a field density of at least 100 percent of the maximum dry density. Rolling shall progress gradually from the sides to the center, parallel to the centerline of the road and shall continue until the whole surface has been rolled
- IX. Portland cement concrete pavement of 0.30m. thick shall be constructed on a prepared base in accordance with the specifications and in conformity with lines, grades, thickness and typical cross section shown on the plans. Steel forms of desired height as to thickness of the concrete shall be set sufficiently in advance of the point where concrete is being placed. After the forms have been set to correct grade, the grade shall be thoroughly tamped, mechanically or by hand at both the inside and outside edges of the base of the forms. The forms shall not deviate from true line by more than 1 cm. at any point. The alignment and grade elevations of the forms shall be checked and corrections made by the contractor immediately before placing the concrete. Testing as to crown and elevation, prior to placing of concrete can be made by means of holding an approved template in a vertical position and move backward and forward on the forms. High areas shall be trimmed to proper elevation. Low areas shall be filled and compacted to a condition similar to that of surrounding grade. Deformed steel tie bars shall be placed perpendicular the longitudinal joints. The bars shall not be painted or coated with asphalt or other material. When shown on the plans and when adjacent lanes of pavement are constructed separately, steel side forms shall be used which will form a key way along the construction joint. Tie bars may be bent at right angles against the form of the first lane constructed and straightened into final position before the concrete of the adjacent lane is placed, or in lieu of bent tie bars, approved two-piece connectors may be used. Concrete shall be deposited in such a manner to require minimal re-handling. The concrete shall be unloaded into an approved spreading device and mechanically spread on the grade in such a manner as to prevent segregation. Placing shall be continuous between transverse joints without the use of intermediate bulkheads. Concrete shall be thoroughly consolidated against and along the faces of all forms and along the full length and on both sides of all joint assemblies, by means of vibrators inserted in the concrete. In no case shall the vibrator be operated longer than 15 seconds in any one location. When reinforced concrete is placed in one layer, the reinforcement may be firmly positioned in advance of concrete placement or it may be placed, at the depth shown on the plans then struck off and screed. after the concrete has been struck off and consolidated, it shall be further smoothed, trued and consolidated by means of a longitudinal float, either by hand or mechanical method. The brooming operation should be so executed that the corrugations produced in the surface shall be uniform in appearance and not more than 1.5 mm. IN depth. after the final finish, but before the concrete has taken its initial set, the edges of the pavement along each side of each slab and on each side of transverse expansion joints, formed joints, transverse construction



joints and emergency construction joints, shall be worked with an approve tool and rounded to the radius require by the plans. Immediately after the finishing operations have been completed and the concrete has sufficiently set, the entire surface of the newly placed concrete shall be cured by ponding method or any other methods. Steel forms for concrete shall remain undisturbed for at least 24 hours after concrete pouring. In the removal of forms, crowbars should be used in pulling out nails and pins. Care should be taken so as not to break the edges of the pavement. in case portion of the concrete are spalled, they shall be immediately repaired with fresh mortar mixed in the proportion of one part of portland cement and two parts fine aggregates. The contractor shall provide sawing equipment in adequate number of units and power to complete the sawing with the water cooled diamond edge saw blade or an abrasive wheel to the required dimensions and at the required rate. The required depth of sawed concrete shall be 3.0 cm. the project engineer will decide when the pavement may be opened to traffic. the road will not be opened to traffic until test specimens molded and cured in accordance with aashto 23 have attained the minimum required flexural strength of 3.8 mpa tested by the third point method at 14 days.

- X. Reinforcing steel, grade 40 shall consist of furnishing, bending, fabricating and placing of steel reinforcement of type, size, shapes and grades required in accordance with the specifications and in conformity with the requirements shown on the plans intended for lined canals.
- XI. Construction of structural concrete class "a" shall consist of furnishing, placing and finishing concrete for box culvert and catch basin including the necessary form works in conformity with lines, grades and dimensions shown on the plans. Concrete shall have the consistency such that it will be workable in the required position, such that it will flow around reinforcing steel.
- XII. Construction of stone masonry for catch basin/headwalls of culverts shall be in conformity with the lines, grades, sections and dimensions shown on the plans or as ordered in writing by the project engineer. The stone shall be clean, hard and durable and shall be subject for engineer's approval. The stones shall have a thickness not less than 150 mm. and width of not less than ½ times their respective thickness and lengths of not less than 1-1/2 times their respective widths. The finish for exposed face stones shall be pitched to the line along the beds and joints. The maximum projection of rock faces beyond the pitch lines shall be more than 50 mm. cement, fine aggregates and water shall conform to the respective requirements for those materials as specified under item 405.
- XIII. Application of thermoplastic pavement markings (white and yellow) shall be applied on the newly concreted pavement in accordance with the specifications and as shown on the plans.
- XIV. The Solar studs will be install into the pavement in accordance with the manufacturer's instructions but shall also comply with the specified requirements. Holes in the pavement shall be true to size of the marker/stud and shall be cleanly cut using appropriate coring equipment. Holes shall be clean and free from all dirt, dust, oil, grease, laitance, or any other materials, which would prevent bonding, prior to application of adhesive. No adhesive shall be applied when the weather is foggy or rainy.

Placing and positioning of the marker/stud shall be by means of rubber mallet until the top surface is flushed with the pavement and with the main directional LED light parallel to the centerline of the road. Excess adhesive displaced during the placing and positioning of the markers/studs shall be wiped clean and no adhesive shall be left exposed on the surface of the pavement. Traffic shall be kept off the newly installed markers/studs for a period of at least 2 hours or until such time that the adhesive has sufficiently cured as determined by the Project Engineer.

- XV. Final inspection of the completed project may now be requested by the contractor upon the approval of the Project Engineer.

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

### MANPOWER SCHEDULE

Name of Project : \_\_\_\_\_

Project Description : \_\_\_\_\_

Location : \_\_\_\_\_

MANPOWER (Minimum)	CONTRACT DURATION (____ Calendar Days)							
	M O N T H L Y							
	1	3	3	4	5	6	7	8
Project Manager								
Project Engineer								
Materials Engineer I								
Construction Safety and Health Officer								
Foreman								
Specify other applicable positions, i.e.								
- Carpenter								
- Steelman								
- Mason								
- Electrician								
- Others								

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

## EQUIPMENT UTILIZATION SCHEDULE

**Name of Project** : \_\_\_\_\_

**Project Description** : \_\_\_\_\_

**Location** : \_\_\_\_\_

[illegible]

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

## CASHFLOW BY QUARTER AND PAYMENT SCHEDULE

Name of Project: : \_\_\_\_\_

Project Description : \_\_\_\_\_

Location : \_\_\_\_\_

Project Duration (days or months)	Payment Schedule (Monthly, in Pesos)	Cash flow (Quarterly, in Pesos)
<b>TOTAL</b>		

### NOTES

- The cash flow by quarter and payment schedule should be consistent with the Bar Chart and S-curb.
- Payment schedule shall not be more than once a month.

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

## Contract Agreement Form for the Procurement of Infrastructure Projects (Revised)

*[not required to be submitted with the Bid, but it shall be submitted within ten (10) days after receiving the Notice of Award]*

### CONTRACT AGREEMENT

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ between **Philippine Ports Authority** with principal office at PPA Building, Bonifacio Drive, South Harbor, Port Area, Manila (hereinafter called the "Entity") and **[name and address of Contractor]** (hereinafter called the "Contractor").

WHEREAS, the Entity is desirous that the Contractor execute **[name and identification number of contract]** (hereinafter called "the Works") and the Entity has accepted the Bid for **[contract price in words and figures in specified currency]** by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

#### NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, viz.:
  - a. Philippine Bidding Documents (PBDs);
    - i. Drawings/Plans;
    - ii. Specifications;
    - iii. Bill of Quantities;
    - iv. General and Special Conditions of Contract;
    - v. Supplemental or Bid Bulletins, if any;
  - b. Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (e.g., Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

- c. Performance Security;
- d. Notice of Award of Contract and the Bidder's conforme thereto; and
- e. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. **Winning bidder agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.**

3. In consideration for the sum of **[total contract price in words and figures]** or such other sums as may be ascertained, **[Named of the bidder]** agrees to **[state the object of the contract]** in accordance with his/her/its Bid.
4. The **Philippine Ports Authority** agrees to pay the above-mentioned sum in accordance with the terms of the Bidding.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

**JAY DANIEL R. SANTIAGO**  
General Manager

for:

**Philippine Ports Authority**

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

for:

**Contractor**

**Acknowledgment**

*[Format shall be based on the latest Rules on Notarial Practice]*