

## **ITEM 12 : MOORING AND FENDERING SYSTEM**

### **SCOPE OF WORK**

1. The work includes furnishing of all labor, materials and equipment to complete the installation of mooring bollards and fenders in piers/wharves.
2. The work shall include the supply, transport, handling, storage and installation of fenders systems in the newly constructed piers.
3. The Contractor shall furnish and install the necessary fittings as shown on the drawings and/or specified.

Supplementary parts necessary to complete and install each item of works shall be included whether or not shown or specified. The Contractor shall furnish to relevant trades all anchors, fastenings, inserts, fittings, fixtures or the like to be installed on or required for securing the works.

The Contractor shall submit shop drawings of all fitting works prior to placing orders and commencement of any fabrication.

### **MATERIAL REQUIREMENTS**

#### **MOORING SYSTEM**

Designated load capacity of mooring bollards shall be as shown in the drawings, and shall be referred to as the maximum load capacity. The mooring bollards shall be at rupture stage upon reaching the maximum load capacity.

Mooring bollards shall be of the dimensions, weights, capacities and designs as shown in the drawings and shall be fabricated by approved manufacturer with cast steel conforming to the requirements indicated in the plan/drawings, or approved equivalent.

The size of the bolts, nuts and washers shall be in accordance with the specifications provided in the plans/drawings. The anchor plate shall be connected to the holding down bolt as shown in the plans/drawings. All bolts, nuts, washers etc., that are exposed shall be hot-dip galvanized.

Samples of the bolts, nuts, washers and anchor plates shall be submitted to the Engineer for approval before being used in the Works.

The upper part of bollards and base plates which are not embedded in concrete shall be painted. The surface of bollards shall be cleaned thoroughly by wire brush or other means prior to painting to remove rust or any other contamination which may interfere with bond of paint to metal.

The exposed surface shall be coated with rust proof paint and finishing paint, which shall be coal-tar epoxy of 120m micron thickness in accordance with JIS K5623 or the approved standard.

#### **Base Steel:**

Chemical composition and mechanical properties of base metal to be used for fabrication of mooring bollard and its accessories shall comply with ASTM A36 and other required standard stated therein.

**Concrete Foundation :**

Concrete foundation for mooring bollards shall conform to the requirements of the Section concerning "Reinforced Concrete".

**Visual Inspection :**

All mooring bollards delivered to Site shall be inspected by the Engineer for any signs of flaws or defect inimical to usage.

**Mill Test Certificates:**

Two (2) copies of mill test reports shall be submitted certifying that materials meet the specified standards.

**Test Inspection:**

Inspection of all materials and methods of fabrication shall be carried out by the Contractor. However, the Engineer reserves the right to inspect all facilities at any time during the manufacture to ensure that the materials and workmanship are in accordance with Specifications and the best of workmanship.

## FENDER SYSTEM

The rubber fenders should comply with the performance requirements specified in the table provided on the plan/drawings of RDF.

### PHYSICAL PROPERTIES OF MATERIALS

The rubber for the fenders shall be of high quality natural rubber, synthetic rubber or mixed rubber blended with carbon black used in the rubber industry and shall have sufficient resilience and anti-ageing, weathering, abrasion, wear and oil resistant properties. The rubber dock fenders shall be free from bubbles, cracks and other harmful defects.

The physical properties of the rubber compound used for the fenders shall comply with the following requirements:

**Physical Properties and Test Method**

Test Item		Properties	Test Method	
Physical Test	Before Aging	Tensile Strength	Test piece: Dumbell No. 3	ASTM D412
		Elongation		ASTM D1456
		Hardness	Spring Type hardness test (Type A)	ASTM D2240
	After Aging	Tensile Strength	Aging by air heating: 70±1°C x 96 hours.	ASTM D412
		Elongation		ASTM D1456
		Hardness		ASTM D2240
	Compression Test		Heat treatment: 70±1°C x 22 hours.	ASTM D395

Note: Equivalent Standards are acceptable.

### FITTINGS AND ANCHORAGE

Anchor bolts and connecting hardware shall be fabricated using type of steel specified (ASTM A36) and to the required shapes and sizes shown on the approved plan/drawings.

### TESTING, SAMPLING, INSPECTION, ACCEPTANCE, MARKING AND PACKAGING

#### Testing

Sample rubber dock fenders that shall be incorporated in the project shall be subjected to tests. It shall pass the required energy absorption and reaction force at a certain deflection as indicated in the plan.

The Contractor shall be required to submit test certificates showing compliance to the above requirements. The test certificates shall be certified by an independent testing institute / organization recognized by the Authority.

All units shall be tested for performance. The fender shall be compressed repeatedly three (3) times to the maximum deflection at the speed from 2 to 8 cm. per minute. The load and deflection values shall be recorded with the precision of 0.1tf and 0.5mm respectively. The results shall be plotted in the form of load-deflection-energy absorption curves. The average data obtained in the second and third test loading shall be considered as performance values.

### Inspection

All fenders of each type shall be inspected for compliance to specified dimensions and all fenders shall be inspected for any sign of flaw or defect inimical to its use.

All anchor bolts and fittings shall be inspected. The material used for the fabrication of bolts and fittings shall be covered by the manufacturer's certified mill certificate and shall be verified by the Authority.

### Acceptance Tolerance

The acceptance tolerance shall be based on the following:

1. Fender Dimension

Length	:	-2% to +4%
Width	:	-2% to +4%
Height	:	-2% to +4%
Thickness	:	-2% to +8%

2. Anchor Bolt Holes in Fender

Diameter of the Hole	:	+2.0mm
Pitch of the Hole	:	+4.0mm

3. Acceptance tolerance for all fenders supplied shall be as follows:

E = Energy absorption,	E ≥ Specified E but not more than 10%
R = Reaction force,	R ≤ Specified R but not more than 10%

## Marking

All fender units shall be clearly numbered and marked. Each fender shall have the following markings.

1. Fender type and manufacturer's name or trade mark
2. Production serial number
3. Date of manufacture or its abbreviation
4. Main dimensions
5. Project identification as follows:

Name of Port/Project : \_\_\_\_\_

Year supplied : \_\_\_\_\_

## Packaging

The fenders shall be packaged on wooden crate or wrapped individually with Polypropylene sheets except when shipped containerized. The bolts and fittings should be placed in crates and suitably treated for protection when transported by sea and stored in port areas.

## EXECUTION

### MOORING / FENDERING SYSTEM

All units shall be installed at the locations shown on the drawings and as directed by the Engineer.

## **ITEM 13 : DRAINAGE WORKS**

### **SCOPE OF WORK**

The works shall consist of excavation, backfilling and construction of lateral drains, construction of manholes, reconnection to existing lateral and other related works in accordance with the dimensions, size, elevation and grade as shown on the drawing and shall conform with the Specification.

At least thirty (30) days before the start of any construction related to drainage works, the Contractor shall submit to the Engineer for his approval, shop drawings of the drainage work he intends to construct. The shop drawings shall include the materials and the general method of installation he intends to employ.

### **MATERIAL REQUIREMENTS**

#### **BACK FILL**

Fill shall be in accordance with Item "Reclamation and Fill".

#### **GRAVEL BEDDING**

Gravel Bedding/gravel base shall be in accordance with the specifications of Crushed Course Aggregates in "Reinforced Concrete".

#### **SAND BEDDING**

Sand bedding shall be in accordance with Item "Reinforced Concrete (Fine Aggregates)".

#### **CONCRETE**

Mixing/Casting and steel reinforcements shall be in accordance with Item "Reinforced Concrete" while the dimensions shall be as shown on the Drawings.

#### **CEMENT MORTAR**

Cement mortar shall consist of one part Portland cement to two parts of fine aggregate with water added as necessary to obtain the required consistency.

#### **REINFORCED CONCRETE PIPE**

The fabrication of reinforced concrete pipes shall conform to the Specifications of ASTM C 76 while the testing requirements shall conform to ASTM C 497. The Engineer reserves the right to inspect and test the pipe delivered for intended purpose. Defects that are discovered after acceptance of delivery of the pipe but before installation shall be a cause for rejection.

Standard reinforcement details and concrete strength shall be in accordance with DPWH "Standard Two Meter Concrete Pipe Culvert".

### **EXECUTION**

#### **EARTHWORKS**

All earthworks for concrete pipe culvert shall conform to the lines, grades and elevations shown on the drawings or as directed by the Engineer.

The lateral drain shall be excavated to the depth, grade and width established by the Engineer. The bedding surface shall provide a firm foundation of uniform density throughout the entire length. Soft, spongy, or otherwise unstable material encountered that will not provide a firm foundation for the concrete drainage shall be removed to the full width of the trenches and replaced by suitable material to a depth of not less than 30 cm. 100mm thick gravel bedding shall be used as foundation or otherwise as specified.

## **PIPE LAYING**

The pipe shall be tested for water-tightness of joints before backfilling the trench. Unsatisfactory work shall be corrected without additional cost to the PPA. The collar shall have set sufficiently prior to backfilling.

Methods of installation and typical bedding for pipe conduits if not included in the plans, shall conformed to DPWH "Standard Two Meter Reinforced Concrete Culvert".

## **LATERAL DRAIN**

Concrete cover and the existing steel gratings shall be set to the required elevations as shown on the drawings to fit the adjoining surfaces and shall be installed after the adjoining concrete is struck off and finished, and the fit on the frames shall be such that there is no rocking.

All completed structures shall be thoroughly cleaned of any accumulations of silts, debris or foreign matter of any kind, until finally accepted and put into service.

## **CATCH BASIN INLETS, MANHOLES AND OUTLETS**

Lid frames shall be set to the required elevations as shown on the drawings to fit the adjoining surfaces. Lids shall be installed after the adjoining concrete is struck off and finished, and the fit on the frames shall be such that there is no rocking.

Where reconstruction of existing catch basin inlets, manholes, outlets, or similar structures are indicated, the work shall be in accordance to the details and elevations as shown on the drawings, including re-installation of existing metal frames, grates and lids, or replacing of concrete covers instead of grates that may have been lost or found lacking. All completed structures shall be thoroughly cleaned of any accumulations of silts, debris or foreign matter of any kind, until finally accepted and put into service.

## **FIELD DENSITY TEST**

Field Density tests to determine the percent of compaction of the fill material shall be conducted until a field density of at least 95 percent of the maximum dry density in accordance with AASHTO T180, Method D has been achieved. In place density determination shall be made in accordance with AASHTO T191.

## ITEM 14 : ELECTRICAL WORKS

### SCOPE OF WORK

The work to be done shall consist of fabricating, trenching, furnishing, delivering and installing electrical materials/fixtures completed in accordance with all the details of the electrical works as shown on the drawings including materials, labor, tools and equipment and all incidental works as found necessary.

Refer to electrical plans/drawings for location and extent of work involved.

### GENERAL REQUIREMENTS

- a) All works shall be done in accordance with the requirements of the publications and agencies having jurisdiction, as well as the requirements of the approved standards.
  1. National Fire Protection Association - (NFPA)
  2. National Electrical Manufacturer Association - (NEMA)
  3. Underwriter Laboratories, Inc. - (UL)
  4. Philippine Electrical Code - (PEC)  
Philippine National Standard - (PNS)  
Light Emitting Diode - (LED)
  5. Federation Specification:  
Molded Case circuit Breaker - (MCCB)
  6. American National Standard Institute - (ANSI)
  7. American Society for Testing and Materials - (ASTM)
  8. Illuminating Engineering Society - (IES)
- b) The electrical power will be connected to the local electric cooperative supply. The supply voltages shall be 220 volt, single phase (1Ø), and 60 hertz.
- c) The Contractor shall employ a licensed Registered Electrical Engineer or Master electrician to perform or to supervise and to conduct the continuous inspection of all electrical work.
- d) The Contractor shall first obtain approval from the Authority before procurement, fabrication or delivery of electrical materials to the site. Partial submittals will not be acceptable and will be returned without review. Submittals shall include the Manufacturer's Name, Trade Name, Place of Manufacture, Catalog Model or Number, Nameplate Data, Size, Layout Dimensions, Capacity, Project Specification and Paragraph Reference, Technical Society Publication References and other information necessary to establish contract compliance of each item to be furnished.
- e) All excavations fill and backfill and concrete works involved herein, shall be carried to the required elevations and shall conform to the provisions of specification under Earthwork and Concrete Construction of this tender document.
- f) The materials and equipment to be furnished shall be standard products of reputable manufacturer engaged in the reproduction of such materials and equipment.

- g) All permits and electrical fees required for this work shall be obtained at the expense of the Contractor. The Contractor shall furnish the Engineer-in-Charge, the final Certificates of Inspections and approval from the proper government authorities after the completion of work. The Contractor shall prepare all as-built plans and all other paper works as required by the enforcing authorities.
- h) The Contractor shall furnish and install electrical materials as shown in the drawings. A licensed Electrical Engineer or Master Electrician is required to implement the installation of the electrical system. A licensed electrical contractor shall oversee/conduct the installation of the main circuit breaker.
- i) Electrical installation shall conform to the requirements of Philippine Electrical Code (PEC) and the other approved standards.
- j) The contractor shall install all electrical works with the supervision of the qualified Registered Electrical Engineer (REE) or Master Electrician. All electrical installation applications regardless of capacity and voltage whether new, addition or revision shall be accompanied by electrical plans signed and sealed by a duly licensed Professional Electrical Engineer (PEE).

## **MATERIAL REQUIREMENTS**

All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark.

## **PRODUCTS**

### **WIRES AND CABLES**

The conductor material to be furnished and installed shall be copper wire Heat-Resistant Thermoplastic (THHN/THWN-2). All conductors shall be rated 600 volts insulation and shall be standard for all sizes.

### **CONDUIT AND FITTINGS**

Underground PVC conduit shall be polyvinyl chloride with concrete covered. It shall be manufactured to schedule 40 outside diameter. All fittings and bends shall be solvent bonded using manufacturers recommended product.

### **LED FLOODLIGHT FIXTURE 250 WATT (OUTDOOR)**

#### **Specifications:**

Color Temperature: warm white (WW/DL)

Average Life hours: 50,000

CRI: RA>75

Working Temperature: 30 -70 degrees

Certifications: CE, ROHS

Light Source: 5-50w Hi-Power LED Chip (Bridgelux /Epistar)

Circuit Protection: Short Circuit & Over-Voltage & High Voltage Surge Protection

Frequency range: 60 hertz

Beam angle: 120 degrees

Working voltage: AC85V-265V

IP Rating: IP 65

Power Factor : >90%

Lamp Body Material: Aluminum alloy, tempered glass (equivalent)

## **LIGHTNING PROTECTION WITH ACCESSORIES**

It consists of air terminals, down conductors, ground connections, grounding electrodes as shown in the plan.

### **PANEL BOARD**

Panel board shall conform to the schedule of panel board as shown on the approved plans with respect to supply characteristics, rating of main lugs or main circuit breaker, number and ratings and capacities of branch circuit breakers.

Panel board shall consist of a factory completed dead front assembly mounted in an enclosing NEMA 3R cabinet consisting of code gauge galvanized sheet steel box with trim and door.

Main and branch circuit breakers for panel board shall have the rating, capacity and number of poles as shown on the approved plans. Breakers shall be thermal magnetic type solid state-type with interrupting capacity of 10,000 amperes symmetrical minimum. Breaker terminal shall be UL listed as suitable for type of conductor provided. Breaker shall be the bolt-in type (that is, bolted to the current carrying bus). Plug-in circuit breakers are not acceptable.

### **CONCRETE DUCT BANK / HANDHOLE**

The contractor shall construct concrete duct bank and handhole as shown in the approved plan.

### **FLOODLIGHT POLE (12.0 meter height)**

The floodlight pole is to be hot-dip galvanized steel and designated as complete system with anchor bolts, steel ladder, hot-dip galvanized steel frame for mounting the number of floodlight fixtures are indicated on the approved plan.

A maintenance platform complete with safety rail should be provided as shown in the approved plan.

Anchor bolts are made of Stainless Steel to ensure that the floodlight pole assembly capacity can withstand all the stresses composed of wind, luminaires weight and live load of maintenance personnel.

### **PROTECTIVE COATING FOR FLOODLIGHT POLE**

#### **Hot Dipped Galvanizing**

All mild steel parts exposed to weather shall be hot-dipped galvanized after fabrication as shown in the approved plan or directed by the Engineer in accordance with the requirements of JIS H88641. Prior to hot-dip galvanizing, the surface shall be cleaned of dirt, weld splatter, grease, slag, oil, paint or other deleterious matters. The steel surfaces shall be chemically descaled and cleaned with abrasive blast or other suitable method as approved by the Engineer.

### **SINGLE ANGLE BAR FLOODLIGHT STEEL TAPERED LAMP POST**

Lamp Post shall be 10.0 m ht. single angle bar steel tapered, furnished installed and tested as shown on the approved plans. The post/s shall be dimensioned for a wind velocity of 185 km/hr. It shall be locally fabricated or manufactured. The post shall be Hot -Dipped Galvanized, prime-coated with red lead and shall be painted at site with the final coating preferably aluminum paint to be approved by the Engineer.

## **EXECUTION**

### **INSTALLATION**

Floodlight Pole shall be installed at the proposed back-up area provided with reinforcement pile foundation, while Single Angle Bar Floodlight steel lamp post installed at the side of existing concrete fence as shown in the plan.

**Pole Setting:**       Depth as shown on the approved plans.

Construction of reinforced steel lamp post and floodlight pole foundation shall be in accordance with the shape and dimensions as shown on the approved plans

Excavations / backfilling required before /after installation of lamp post and floodlight pole with the trench shall conform to the provisions of Earthwork and Concrete construction.

Concrete Pedestal Post shall be reinforced concrete with appropriate weatherproof fittings as constructed as shown in the approved plan. Reinforced concrete materials shall conform to the requirements of concrete. Concrete shall be of 21 Mpa (3000 psi) compressive strength.

**Metering:** the local electric utility company of Legazpi Port is responsible for the supply and installation of metering equipment, and its accessories, but it is part of the contractor responsibility and expense to coordinate with them on this regard.

### **WORKMANSHIP**

The work throughout shall be executed in the best and most thorough manner under the direction of and at the satisfaction of the Registered Electrical Engineer or Master Electrician, who will interpret the intent meaning of the drawings and specification and shall have the power to reject any work and materials which in his judgment, are not in full accordance therewith.

### **TESTING OPERATIONS**

When the electrical installation is completed, the Contractor shall test the installed electrical materials and equipment in the presence of Registered Electrical Engineer or Master Electrician. The system shall be free from any defects, shorts or grounds. The Contractor at no extra cost shall furnish all necessary instruments and personnel required for the testing.

### **GUARANTEE**

Upon completion and before final acceptance of the work, the Contractor shall furnish the Engineer a written guarantee stating that all works executed are free from defects on materials and workmanship. The guarantee shall be for a period of one year from the date of the final acceptance. Any work that becomes defective during the said period shall be corrected / replaced by the Contractor at his own expense in a manner satisfactory to the Authority.

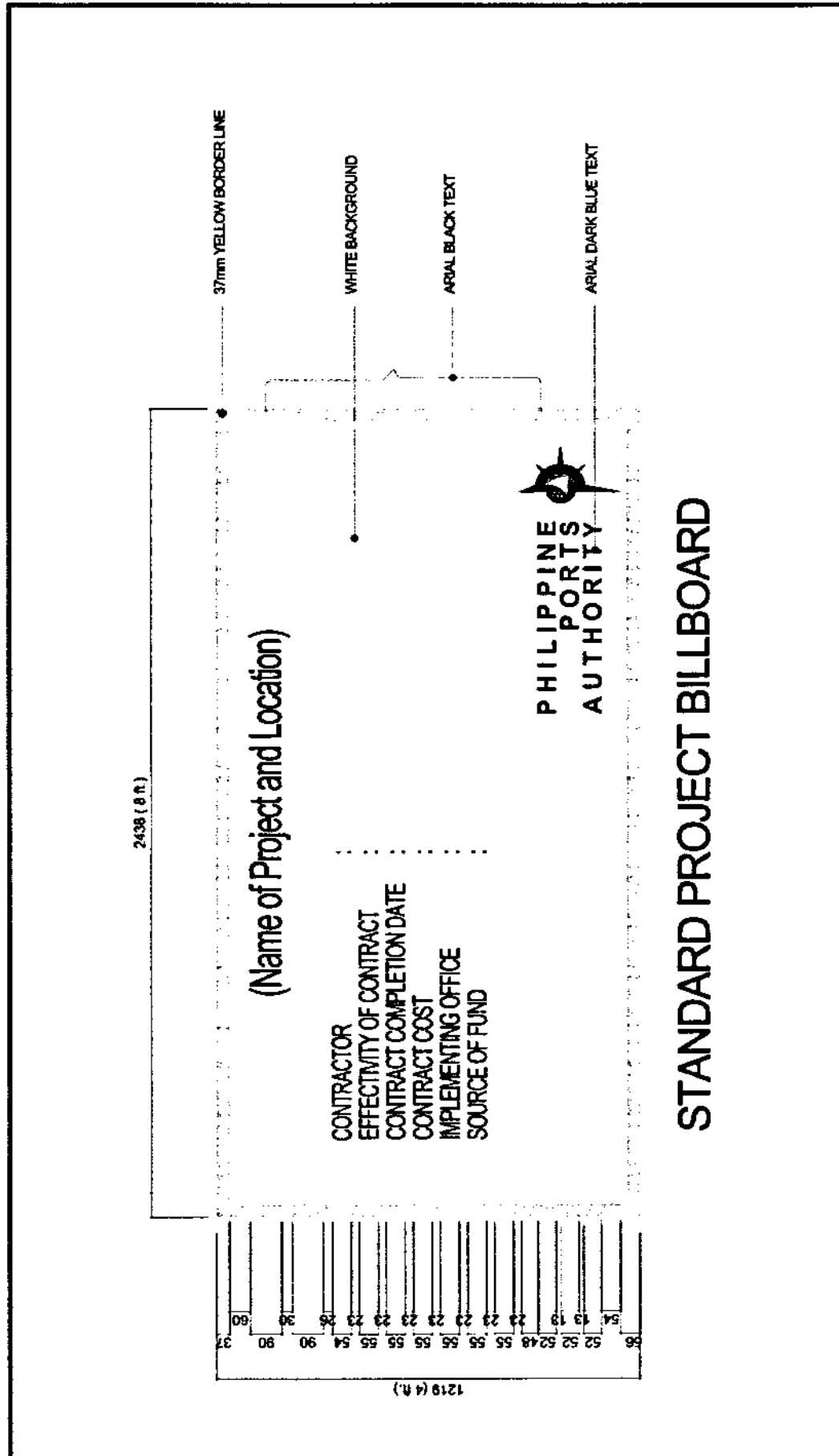
**ITEM 15 : PROJECT BILLBOARD****SPECIFICATION**

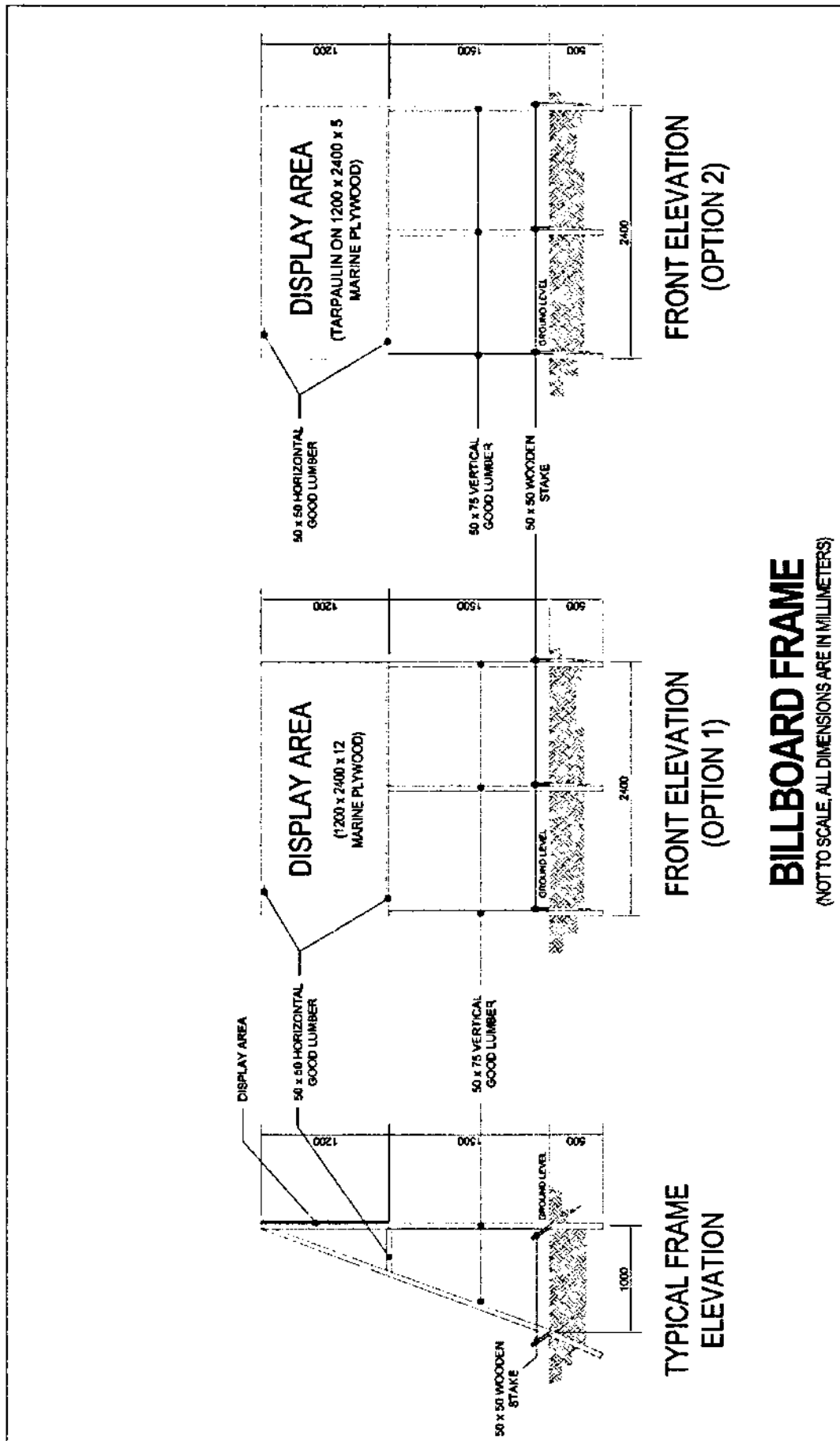
The Project Billboard shall be installed at location(s) designated by the Engineer.

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.





“To all our contractors, suppliers, and service providers, all we ask is for you to

**SPEED UP**

your contracts and **FINISH**

**AHEAD** of schedule,

**WITHOUT SACRIFICING**

**QUALITY**

of work, and **REASONABLENESS OF COST** agreed upon. Gawin niyo ‘yan at hindi tayo maghihiwalay ng landas (Do that and we will not part ways).”

A Message from  
DOTr Secretary Arthur Tugade



@DOTrPH



@DOTrPH

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## ITEM 16 : 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.

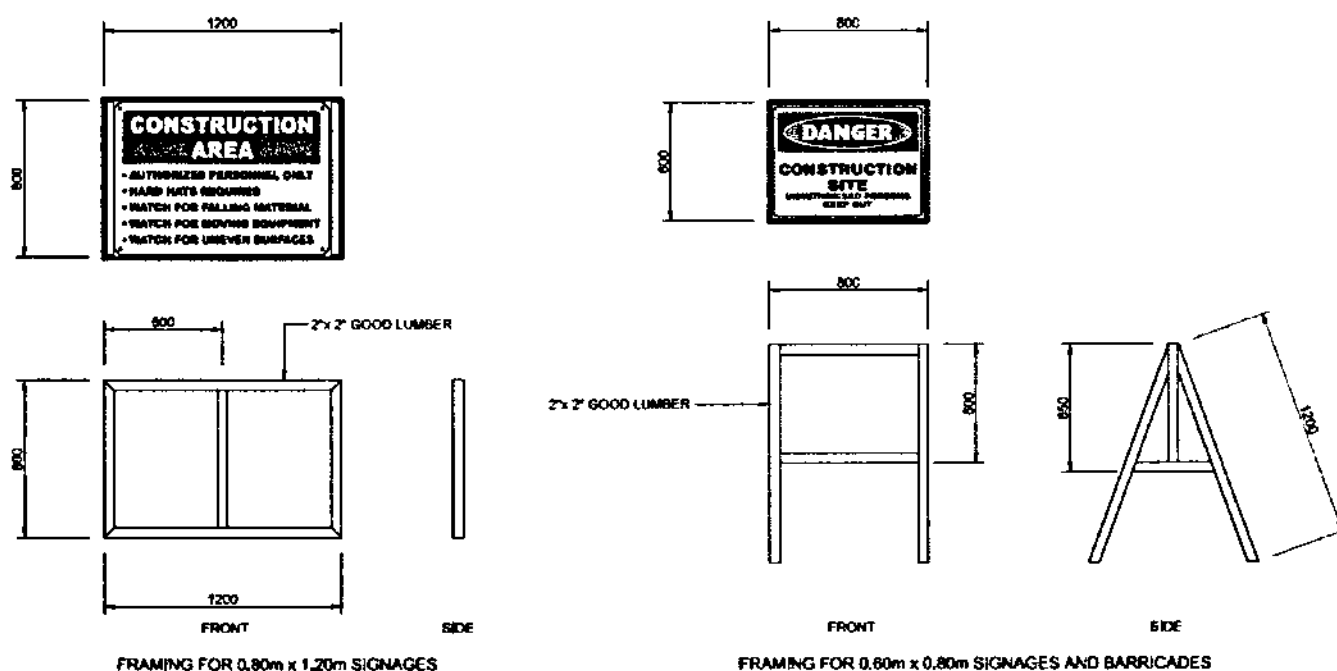
### SPECIFICATION

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)

- 1 OF 29 - DEVELOPMENT PLAN, VICINITY MAP, GENERAL NOTES, DESIGN PARAMETERS, LIST OF DRAWINGS
- 2 OF 29 - GENERAL PLAN
- 3 OF 29 - PILING AND ANCHORAGE PLAN
- 4 OF 29 - PILING AND ANCHORAGE PLAN
- 5 OF 29 - SHEET PILING PLAN, SECTIONAL ELEVATION - "A", DETAIL OF CHANNEL/WALE, DETAIL OF WALE SPLICE
- 6 OF 29 - OFF-SHORE ELEVATION @ 163.90m WHARF, OFF-SHORE ELEVATION @ 110.60m WHARF
- 7 OF 29 - SECTIONAL ELEVATION @ STA. 0 + 020 AND @ STA. 0 + 040
- 8 OF 29 - SECTIONAL ELEVATION @ STA. 0 + 060 AND @ STA. 0 + 080
- 9 OF 29 - SECTIONAL ELEVATION @ STA. 0 + 100 AND @ STA. 0 + 120
- 10 OF 29 - SECTIONAL ELEVATION @ STA. 0 + 140 AND @ STA. 0 + 160
- 11 OF 29 - SECTIONAL ELEVATION @ STA. 0 + 180 AND @ STA. 0 + 200
- 12 OF 29 - SECTIONAL ELEVATION @ STA. 0 + 220 AND @ STA. 0 + 240
- 13 OF 29 - SECTIONAL ELEVATION @ STA. 0 + 260 AND @ STA. 0 + 274.50
- 14 OF 29 - DETAIL OF RETAINING WALL, DETAIL ATTACHMENT OF RUBBER DOCK FENDER, DETAIL ATTACHMENT OF R.D.F. WITH MOORING TEE-HEAD, DETAIL OF ANCHOR WALL, DETAIL OF ANCHOR BLOCK
- 15 OF 29 - TYPICAL SECTION OF STEEL SHEET PILE, DETAIL OF TIE RODS
- 16 OF 29 - DETAIL OF 50-TON MOORING BOLLARD (TEE-HEAD), DETAIL OF RUBBER DOCK FENDER V-600H x 2000L
- 17 OF 29 - STORM DRAINAGE LAYOUT 18 OF 29 - TYPICAL DRAINAGE LAYOUT AT WHARF SIDE, SECTION D1 (TYPICAL INVERT ELEVATION)
- 19 OF 29 - SECTIONAL DETAILS OF DRAINAGE, TYPICAL DETAIL OF LATERAL DRAINAGE AT BACK-UP AREA
- 20 OF 29 - DETAIL OF LATERAL DRAINAGE, DETAIL OF CATCH DRAIN MANHOLE
- 21 OF 29 - DETAIL OF DRAINAGE OUTFALL, TYPICAL INSTALLATION OF R.C. PIPE CULVERT
- 22 OF 29 - PAVEMENT LAYOUT
- 23 OF 29 - TYPICAL PORTLAND CEMENT CONCRETE PAVEMENT DETAILS
- 24 OF 29 - PORT LIGHTING LAYOUT PLAN, GENERAL NOTES, LEGEND, RECOMMENDATION
- 25 OF 29 - SCHEDULE OF LOAD, RISER DIAGRAM, MAIN DISCONNECT PANEL, SINGLE LINE DIAGRAM
- 26 OF 29 - DETAIL OF FLOODLIGHT FOUNDATION, DETAIL OF HANDHOLE, DETAIL OF DUCTBANK
- 27 OF 29 - DETAIL OF LAMP POST FOUNDATION, FLOODLIGHT POST CONNECTION DETAILS, DETAIL OF CONCRETE PEDESTAL POST, SINGLE ANGLE BAR FLOODLIGHT STEEL TAPERED LAMP POST

- 28 OF 29 - DETAIL OF 12-METER-HIGH FLOODLIGHT STEEL PLE, PLATFORM PLAN OF FLOODLIGHT, DETAIL OF FLOODLIGHT MOUNTING PLATFORM, PLATFORM MOUNTING DETAIL, STEP BAR DETAIL, LOWER/UPPER PLATE, BASE PLATE, SPECIFICATION OF FLOODLIGHT
- 29 OF 29 - DETAIL OF 400mm x 400mm R.C. PILE

**SECTION VIII**

**BILL OF QUANTITIES**  
**and**  
**ATTACHMENTS**

**BILL OF QUANTITIES**  
**LEGAZPI PORT REHABILITATION PROJECT**  
 Port of Legazpi, Legazpi, Albay

NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
<b>BILL NO. 1</b>	<b>GENERAL EXPENSES</b>				
1.01	Mobilization, demobilization and cleaning	lot	1		
1.02	Rental of temporary site office and residence for the Engineer and staff	mo.	21		
1.03	Maintain temporary site office and residence for the Engineer and staff	mo.	21		
1.04	Provide Construction Safety and Health Program in the execution of the project including stringent Covid-19 protocols per Engineering circular No. 01-2020, and Construction Guidelines for Project Implementation during the period of Public Health Emergency, PDCB and CIAP (as indicated in the Bid Documents)	mo.	21		
<b>TOTAL FOR BILL NO. 1</b>					<b>.</b>

\_\_\_\_\_  
 Bidders Authorized Signature

**BILL OF QUANTITIES**  
**LEGAZPI PORT REHABILITATION PROJECT**  
 Port of Legazpi, Legazpi, Albay

NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
<b>BILL NO. 2</b>	<b>REHABILITATION OF EXISTING BACK-UP AREA</b>				
2.01	Remove and turn-over to PPA Authority existing lamp posts	no.	2		
2.02	Remove and dispose damaged portion of concrete pavement	sq.m.	9,607		
2.03	Remove and dispose scattered rocks	cu.m.	479		
2.04	Excavate portion of existing fill materialst up to required elevation for the installation of tie rods, anchor walls, tubular sheet piles, lateral drainage, RC pipe culvert, pedestal post, lamp post foundation and ductbank	cu.m.	1,897		
2.05	Supply and deliver to site tubular sheet piles (A252 Grade 2, 900mm diameter x 13mm thk) including interlocking connectors	m.t	2,402		
2.06	Supply and apply protective coating to steel pipe piles	sq.m.	10,015		
2.07	Handle, pitch and drive tubular sheet piles	l.m.	7,728		
2.08	Supply, deliver and install steel channel walls including splice plates, bolts, washers and other accessories	kg.	35,827		
2.09	Supply and place concrete filler for tubular sheet piles	cu.m.	580		
2.10	Supply and install reinforcing steel reinforcements for tubular sheet piles	kg.	72,360		
2.11	Supply and place sand filler for tubular sheet piles	cu.m.	356		
2.12	Supply and deliver to site 400mm x 400m RC piles	l.m.	75		
2.13	Handle, pitch and drive 400mm x 400mm RC piles	l.m.	75		
2.14	Chipping of driven piles up to cut-off elevation including disposal	no.	5		

\_\_\_\_\_  
 Bidders Authorized Signature

**BILL OF QUANTITIES**  
**LEGAZPI PORT REHABILITATION PROJECT**  
 Port of Legazpi, Legazpi, Albay

NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
2.15	Supply and install tie-rods (Steel 45) of various lengths and sizes including accessories				
2.15a	a) 32mm dia. x 18m.	set	33		
2.15b	b) 32mm dia. x 12m.	set	1		
2.15c	c) 70mm dia. x 20m.	set	140		
2.15d	d) 70mm dia. x 18m.	set	18		
2.15e	e) 70mm dia. x 16m.	set	1		
2.15f	f) 70mm dia. x 15m.	set	1		
2.15g	g) 70mm dia. x 14m.	set	1		
2.16	Supply and place 50-100 kg./pc. core rocks	cu.m.	6,501		
2.17	Supply and install geotextile filter	sq.m.	5,906		
2.18	Supply and place gravel bedding for anchor walls, catch drain manholes, lateral drainage, pedestal post, lamp post foundation and duct bank	cu.m.	135		
2.19	Supply and place sand and gravel fill	cu.m.	27,726		
2.20	Supply, spread and compact aggregate subbase course	cu.m.	5,153		
2.21	Supply, spread and compact 200mm thick gravel base course	cu.m.	3,127		
2.22	Construct 300mm thick portland cement concrete pavement for back-up area	sq.m.	15,632		
2.23	Supply and place 3,500 psi concrete for retaining wall, mooring block, anchor block, anchor wall, RC curb, drainage system and port lighting system	cu.m.	1,731		
2.24	Supply, fabricate and install steel reinforcements for retaining wall, mooring block, anchor block, anchor wall, RC curb, drainage system and port lighting system	kg.	133,496		

Bidders Authorized Signature

**BILL OF QUANTITIES**  
**LEGAZPI PORT REHABILITATION PROJECT**  
 Port of Legazpi, Legazpi, Albay

NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
2.25	Supply and deliver 50T, T-Head mooring bollard including accessories	set	17		
2.26	Install mooring bollard including accessories	set	17		
2.27	Supply and deliver V600Hx2000L rubber dock fenders including accessories	set	32		
2.28	Install V-type rubber dock fenders including accessories	set	32		
2.29	Supply and install 750mm diameter RCPC including sand bedding	l.m.	58		
2.30	Supply, fabricate and install trench grate	l.m.	480		
<b>TOTAL FOR BILL NO. 2</b>					

\_\_\_\_\_  
 Bidders Authorized Signature

**BILL OF QUANTITIES**  
**LEGAZPI PORT REHABILITATION PROJECT**  
Port of Legazpi, Legazpi, Albay

NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
BILL NO. 3	PORT LIGHTING SYSTEM				
3.01	Supply, deliver and install port lighting system including accessories	lot	1		
TOTAL FOR BILL NO. 3					

Bidders Authorized Signature

**BILL OF QUANTITIES**  
**LEGAZPI PORT REHABILITATION PROJECT**  
 Port of Legazpi, Legazpi, Albay

NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4) x (5)
<b>BILL NO. 4</b>	<b>REIMBURSABLE ITEMS</b>				
4.01	Provide reimbursable item necessary in the implementation of the project as determined by the Authority				
	a) Office furniture and appliances	lot	1		
	b) Computer and Accessories	lot	1		
	c) Service Vehicle including LTO registration and comprehensive insurance	lot	1		
<b>TOTAL FOR BILL NO. 4</b>					<b>-</b>

Bidders Authorized Signature

## **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 for temporary 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 at least 48.00 m<sup>2</sup>

**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 including stringent Covid-19 protocols per PPA Engineering Circular No. 01-2020 and, construction guidelines for the project implementation during the period of public health emergency approved by PDCB and CIAP (as indicated in the bid documents)**

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**

### **REHABILITATION OF EXISTING BACK-UP AREA**

**Item 2.01 Remove and turn-over to PPA Authority existing lamp posts**

The quantity to be paid for shall be the actual number of existing lamp posts to be removed and turned-over to PPA 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 Remove and dispose damaged portion of concrete pavement**

The quantity to be paid for shall be the actual area in square meter of damaged portion of concrete pavement to be removed and properly disposed 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 Remove and dispose scattered rocks**

The quantity to be paid for shall be the actual volume in cubic meter of scattered rocks to be removed and properly disposed 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 Excavate portion of existing fill materials up to required elevation for the installation of tie rods, anchor walls, tubular sheet piles, lateral drainage, RC pipe culvert, pedestal post, lamp post foundation and ductbank.**

The quantity to be paid for shall be the actual volume in cubic meter of portion of existing fill materials to be excavated up to required elevation for the installation of tie rods, anchor walls, tubular sheet piles, lateral drainage, RC pipe culvert, pedestal post, lamp post foundation and ductbank 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 Supply and deliver to site tubular sheet piles (A252 Grade 2, 900mmØ x 13mm thk.) including interlocking connectors**

The quantity to be paid for shall be the actual weight in metric tons of tubular sheet piles (A252 Grade 2, 900mmØ x 13mm thk.) including interlocking connectors, supplied and delivered to site 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 2.06 Supply and apply protective coating to steel pipe piles**

The quantity to be paid for shall be the actual area in square meter of protective coating applied on the steel pipe piles 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 2.07      Handle, pitch and drive tubular sheet piles**

The quantity to be paid for shall be the actual length in linear meter of tubular sheet piles to be handled, pitched and driven in accordance with the plans and specifications, measured from the tip of piles to cut-off elevation and accepted by the Engineers. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary to complete the work.

**Item 2.08      Supply, deliver and install steel channel wale including splice plates, bolts, washers and other accessories.**

The quantity to be paid for shall be the actual weight in kilogram of steel channel wale including splice plates, bolts, washers and other accessories to be supplied, delivered and installed in accordance with the plans and specifications, measured from the tip of piles to cut-off elevation and accepted by the Engineers. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary to complete the work.

**Item 2.09      Supply and place concrete filler for tubular sheet piles**

The quantity to be paid for shall be the actual volume in cubic meter of concrete filler for tubular sheet piles, 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.

**Item 2.10      Supply and install reinforcing steel reinforcements for tubular sheet piles**

The quantity to be paid for shall be the actual weight in kilogram of reinforcing steel reinforcements for tubular sheet piles, 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 2.11      Supply and place sand filler for tubular sheet piles**

The quantity to be paid for shall be the actual volume in cubic meter of sand filler for tubular sheet piles, 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.

**Item 2.12      Supply and deliver to site 400mm x 400mm RC Piles**

The quantity to be paid for shall be the actual length in linear meter of 400mm x 400mm RC Piles to be supplied and delivered to site 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 2.13      Handle, pitch and drive 400mm x 400mm RC Piles**

The quantity to be paid for shall be the actual length in linear meter of 400mm x 400mm RC Piles to be handled, pitched and driven 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 2.14      Chipping of driven Piles up to cut-off elevation including disposal**

The quantity to be paid for shall be the actual number of driven piles to be chipped off up to cut-off elevation including proper disposal 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 2.15      Supply and install tie rods (Steel 45) of various lengths and sizes including accessories**

- a.) 32mmø x 16m.
- b.) 32mmø x 12m.
- c.) 70mmø x 20m.
- d.) 70mmø x 18m.
- e.) 70mmø x 16m.
- f.) 70mmø x 15m.
- g.) 70mmø x 14m.

The quantity to be paid for shall be the actual quantity in set of tie rods of various sizes and lengths including 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 2.16      Supply and place 50-100 kg./pc. core rocks**

The quantity to be paid for shall be the actual volume in cubic meter of 50-100 kg./pc. core rocks, 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.

**Item 2.17      Supply and install geotextile filter**

The quantity to be paid for shall be the actual area in square meter of geotextile filter, 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 2.18      Supply and place gravel bedding for anchor walls, catch drain manholes, lateral drainage, pedestal post, lamp post foundation and duct bank.**

The quantity to be paid for shall be the actual volume in cubic meter of gravel bedding supplied and set-in-place for anchor walls, catch drain manholes, lateral drainage, pedestal post, lamp post foundation and duct bank 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 2.19      Supply and place sand and gravel fill**

The quantity to be paid for shall be the actual volume in cubic meter of sand and gravel fill, supplied and set-in-place in accordance with the plans and specifications and accepted by the Engineer. Hydrographic/Topographic Surveys before and after placing of sand and gravel fill shall be made to determine the actual elevations along the cross sections and the actual quantities for payment. Volume due to settlement as established using settlement plates shall also be considered for payment. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary to complete the work.

**Item 2.20      Supply, spread and compact aggregate subbase course**

The quantity to be paid for shall be the actual volume in cubic meter of aggregate subbase course to be supplied, spread and compacted 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 2.21      Supply, spread and compact 20mm thick gravel base course**

The quantity to be paid for shall be the actual volume in cubic meter of 20mm thick gravel base course to be supplied, spread and compacted 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 2.22      Construct 300mm thick Portland cement concrete pavement for back-up area**

The quantity to be paid for shall be the actual area in square meter of Portland cement concrete pavement (300mm thk.) for back-up area, 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 2.23      Supply and place 3,500 psi concrete for retaining wall, mooring block, anchor block, anchor wall, RC Curb, drainage system and port lighting system**

The quantity to be paid for shall be the actual volume in cubic meter of 3,500 psi concrete for retaining wall, mooring block, anchor block, anchor wall, RC Curb, drainage system and port lighting system, 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.

**Item 2.24      Supply, fabricate and install steel reinforcement for retaining wall, mooring block, anchor block, anchor wall, RC Curb, drainage system and port lighting system**

The quantity to be paid for shall be the actual weight in kilogram of reinforcing steel bars for retaining wall, mooring block, anchor block, anchor wall, RC Curb, drainage system and port lighting system, 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 2.25      Supply and deliver 50T, T-Head mooring bollard including accessories**

The quantity to be paid for shall be the actual quantity in set of 50T, T-Head mooring bollard including accessories, supplied and delivered 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 2.26      Install mooring bollard including accessories**

The quantity to be paid for shall be the actual quantity in set of mooring bollard including accessories, 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 2.27      Supply and deliver V600Hx2000L rubber dock fenders including accessories**

The quantity to be paid for shall be the actual quantity in set of V600Hx2000L rubber dock fenders including accessories, supplied and delivered 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 2.28      Install V-type rubber dock fenders including accessories**

The quantity to be paid for shall be the actual quantity in set of V-Type rubber dock fenders including accessories, 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 2.29      Supply and install 750mm diameter RCPC including sand bedding**

The quantity to be paid for shall be the actual length in linear meter of 750mm diameter RCPC including sand bedding, supplied and installed in accordance with the plans and specifications and accepted by the Engineers. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary to complete the work.

**Item 2.30      Supply, fabricate and install trench grate**

The quantity to be paid for shall be the actual length in linear meter of trench grate, supplied, fabricated and installed in accordance with the plans and specifications and accepted by the Engineers. 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**

#### **PORT LIGHTING SYSTEM**

**Item 3.01      Supply, deliver and install port lighting system including accessories**

The quantity to be paid for shall be the actual quantity in lot of port lighting system including accessories, supplied, delivered and installed in accordance with the plans and specifications and accepted by the Engineers. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary to complete the work.

### **BILL NO. 4**

#### **REIMBURSABLE ITEMS**

**Item 4.01      Provide reimbursable items necessary in the implementation of the project as determined by the Authority.**

- a. Office Furniture and Appliances**
- b. Computer and Accessories**
- c. Service Vehicle including LTO registration and comprehensive insurance**

The quantity to be paid for shall be the actual quantity of determined items by the Authority deemed necessary in the implementation of the project, supplied, delivered and accepted by the Authority. Payment for said items shall be made only upon complete delivery/acceptance of such. The contract lump sum price shall be full compensation for providing all determined items. The Contractor's Profit and Overhead, Contingencies and Miscellaneous (OCM) should not be included in the cost of said items. Claims for payment shall be supported by Official Receipt(s) (OR) and at least three (3) canvasses. The amount to be paid for shall be the price indicated in the OR but should not exceed the contract lump sum price. The determined items shall be the property of PPA. Operation and maintenance shall be borne by PPA.

## **FACILITIES TO BE PROVIDED FOR THE ENGINEER & HIS STAFF**

### **RENTAL OF SITE OFFICE AND RESIDENCE FOR THE ENGINEER & STAFF**

The Contractor shall provide a temporary site office and residence (rental) with an area of at least 48 square meters for the use of the Engineer and his staff for the whole duration of the project.

## OFFICE EQUIPMENT FOR USE OF THE PPA ENGINEER AND STAFF

The Contractor shall provide within thirty (30) days after notice to commence work, the following main items of brand new office equipment for use of the Engineer and his staff. The Contractor shall make available for use of the Engineer other equipment as may be necessary for the proper functioning of the office. The equipment shall be the property of PPA. Operation and maintenance shall be borne by PPA.

### a) Office Furnitures and appliances

2	sets	Office table, 1.5 x 0.70m with chair
1	set	Conference table w/ chair (6-str.)
2	pcs.	Single bunk beds w/ mattress & beddings
2	pcs.	Waste paper basket
1	pc.	Calculator (Scientific, 12 digit capacity)
1	pc.	Communication system, Cell phone
1	pc.	Filing Steel Cabinet, 4-drawers
2	units	Air-conditioned unit (1.0 hp., wdo type)
1	unit	Refrigerator (6 cu.ft.)
1	set	Gas stove (2 burner with tank)
1	unit	Hot and cold water dispenser (5 gal. Cap.)
1	pc.	White board with eraser and marker
1	unit	Stand fan (16" dia.)

### b) Computers and Accessories

2	sets	Laptop/Desktop Unit & Accessories (Asus)
2	sets	Printer and accessories
2	units	Uninterrupted Power Supply (UPS)
2	units	External Hard Drive (USB 3.0, 4TB)
1	unit	Computer Table
1	unit	Computer Chair

### c) Licensed Softwares

2	units	Microsoft Office
2	units	Operating System (Windows)
2	units	Antivirus

### d) Service Vehicle including LTO registration and comprehensive insurance

1	unit	Service Vehicle (up to 3.0 DSL Engine, 4x2, A/T)
1	lot	Comprehensive Insurance (1 yr.)
1	lot	LTO Registration (3yrs.)

The Contractor shall provide within thirty (30) days after notice to commence work, two (2) “Brand New Laptop or Desktop”, complete with printer and accessories and licensed software for the use of the PPA Engineer and his Staff at the start of the project. The items shall be the property of PPA. Operation and maintenance shall be borne by PPA.

<b>Description / Specifications:</b>	<b>LAP TOP UNIT</b>	<b>DESK TOP UNIT</b>
<b>Brand/Model</b>	<i>ASUS, Apple, Lenovo, ACER, HP or Equivalent Branded</i>	
<b>Processor</b>	<i>Intel® Core™ i7-10750H Processor 2.6 GHz (12M Cache, up to 5.0 GHz)</i>	<i>Intel® Core™ i7-9700K CPU</i>
<b>System Memory</b>	<i>8GB DDR4 Ram</i>	<i>8GB DDR4 Ram at 2666MHZ up to 32GB, 2DIMM slots</i>
<b>Chipset</b>		<i>Intel B360</i>
<b>CD ROM</b>		<i>Tray load DVD Drive (Reads and Writes to DVD/CD)</i>
<b>Graphics</b>	<i>NVIDIA GeForce GTX 1660Ti with 6GB GDDR6 VRAM</i>	<i>NVIDIA GeForce RTX 2060 6GDS</i>
<b>SATA</b>		<i>4 x SATA 6.0 Gbps</i>
<b>HDD/SSD</b>	<i>512Gb PCIe M.2 3.0 SSD</i>	<i>128GB SSD (M.2 PCIe 128GB) + 1TB HDD (3.5" 7200rpm)</i>
<b>Display</b>	<i>17.3 inch. FHD IPS Display, 1920 x 1080, 120Hz Display</i>	<i>27" inch Monitor FHD (1920 x 1080 Display) with speaker, display ports, USB hub, earphone jack and PC audio inputs.</i>
<b>WIFI/ Bluetooth</b>	<i>Wireless 802.11 AX WIFI + Bluetooth 5.0</i>	<i>802.11AC 2x2/ Bluetooth 5.0</i>
<b>Audio</b>	<i>Yes</i>	<i>Realtek ALC887, DTS Headphone X</i>
<b>Accessories</b>	<i>Wireless Mouse with Pad</i>	<i>Wireless Keyboard and Mouse with Pad</i>
<b>Ports</b>	<i>1 x Type C USB 3.2 (Gen 2) with Display Port and G-Sync, 3 x Type A USB (GEN1), 1 HDMI</i>	<i>4 x USB 3.2, 2 X USB 2.0, HDMI, Audio Jack, RJ45 and Mic in/ headphone out</i>
<b>OS Bundled (Certification/License)</b>	<i>Windows 10 PRO (64bit) Single Language English</i>	
<b>Anti-virus Software</b>	<i>Symantec 12.1.x /or other Anti-Virus Software (optional)</i>	
<b>Multi-Function Printer (Copy, Scan Printer)</b>	<i>HP, Epson, Brother or equivalent brand with wide format capabilities (A3 size), 128 MB Memory Capacity and Automatic Document Feeder (ADF)</i>	
<b>External Hard Drive</b>	<i>Portable (USB 3.0 Interface, at least 4TB Capacity)</i>	

## SOFTWARE

The Contractor shall provide within thirty (30) days after commence work, the specified **“License softwares” latest version** for the use of the PPA Engineer and staff. The software shall be the property of PPA. Operation and maintenance shall be borne by PPA.

## **SERVICE VEHICLE**

The Contractor shall provide within thirty (30) days after notice to commence work, one (1) unit **“Brand New” Transportation Service Vehicle** for the use of the PPA personnel. The vehicle to be provided by the Contractor shall be to the satisfaction of PPA. The vehicle shall comply in all respect with all relevant national or local laws, statutes and regulations. The unit shall become the property of PPA. Operations and maintenance shall be borne by PPA.

The vehicle shall be diesel-fuel engine with a displacement of not more than 3000cc, 4 x 2 and with automatic transmission

**MINIMUM MAJOR EQUIPMENT REQUIREMENTS**

1	unit/s	Crane Barge (319 GW) with 60T crane, owned
2	unit/s	Crawler Crane (30T, minimum), 1 owned, 1 owned/leased
1	unit/s	Pile Hammer (Diesel or Hydraulic, 7,500 kg.m.), owned
1	unit/s	Drop Hammer (2T, minimum), owned
1	unit/s	Clamshell, owned
1	unit/s	Concrete Bucket, owned
1	unit/s	Concrete Cutter, owned
2	unit/s	Concrete Screeder, owned
1	unit/s	Concrete Mixer (1 bagger, minimum), owned
4	unit/s	Concrete Vibrator (3.50 hp, minimum), owned
2	unit/s	Bar Cutter (electric, 25mm dia min.), owned
2	unit/s	Bar Bender (electric, 25mm dia min.), owned
2	unit/s	Dump Truck (8 cu.m., minimum), owned
1	unit/s	Water Truck (1,000 gal., minimum) with pump, owned
2	unit/s	Jackhammer, owned
2	unit/s	Air-compressor (250cfm, minimum), owned
1	unit/s	Plate Compactor (5hp, minimum), owned
1	unit/s	Welding Machine (400 amp., minimum), owned
1	unit/s	Oxy/Acetylene Cutting Outfit, owned
2	unit/s	Diving equipment, owned/leased
1	unit/s	Tugboat (500hp, minimum), owned/leased
1	unit/s	Road Roller (10T, vibratory, minimum), owned/leased
1	unit/s	Road Grader (125hp, minimum), owned/leased
1	unit/s	Payloader (80 hp, minimum), owned/leased
1	unit/s	Backhoe (0.40 cu.m., 94.30hp, minimum), owned/leased
2	unit/s	Transit Mixer (5-6 cu.m. cap., minimum), owned/leased
1	unit/s	Backhoe breaker attachment, owned/leased
1	unit/s	Cargo Truck (5 Ton), owned

## **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) including stringent covid-19 protocols per PPA Engineering Circular No. 01-2020 and Construction Guidelines for Project Implementation during the period of public health emergency approved by PDCB and CIAP.

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
1	no.	Nurse / Health Officer

### **EQUIPMENT / MATERIALS**

#### **Personnel Protective Equipment**

50	pcs.	Hard Hats
50	pair	Gloves (rubberized)
10	pair	Safety Glasses/Goggles (clear)
8	pcs.	Aprons
6	pcs.	Safety Belts
50	pair	Safety Shoes

#### **Safety Devices**

2	no.	Barricades
2	no.	Warning signs
2	unit/s	Fire extinguisher
1	lot	Disinfection Booth with Footbath
50	no.	PCR Test for Covid-19 (Initial Testing)
50	no.	PCR Test for Covid-19 (Confirmatory Testing)

Medical and First Aid System	-	Twenty-one (21) mos.
Temporary shelter for workers	-	200.00 sq.m.

### **NOTE:**

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

PPA MEMORANDUM CIRCULAR  
No. 02  
Series of 2016  
Attachment

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

<i>Materials/Items of Work</i>	<i>Required Tests</i>	<i>Minimum Incremental Frequency of Tests</i>
<b>I. Construction of Pier/Wharf, Platform and Ramp</b>		
Structural Concrete (SC)		
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	Mil 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/Learn 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
Warning 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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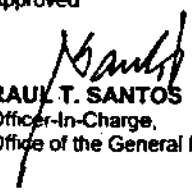
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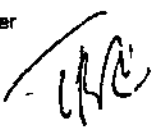
Materials/Items of Work	Required Tests	Minimum Incremental Frequency of Tests
Fixtures	Inspection and Evaluation Report from the Engineer  Testing and Commissioning	One per item
Pipe Culverts	Compression Strength  Inspection and Evaluation Report from the Engineer	For every size not more than 25 pipes 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**

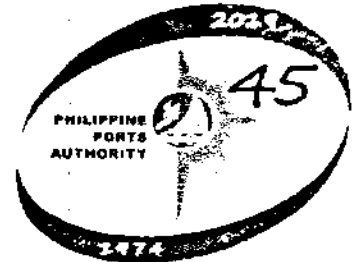
1. Testing of RDF shall be performed only by an independent Testing Laboratory duly accredited by BRS, DOST and PPA
2. Testing of other materials shall be performed only by an independent Testing Laboratory duly accredited by BRS and PPA.
3. All other issuances which are otherwise inconsistent herewith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

Approved

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



MAY 15 2020



**ENGINEERING CIRCULAR NO. 01 2020**

**FOR : THE MANAGER, PCMD  
ALL PORT MANAGERS  
CONCERNED CONTRACTORS**

**FROM : THE ASSISTANT GENERAL MANAGER,  
ENGINEERING OFFICE**

**SUBJECT : SAFETY GUIDELINES FOR THE IMPLEMENTATION OF  
ALL PPA (CAPEX & RM) AND DOTr TOURISM AND  
SOCIAL REFORM PROJECTS DURING THE COVID-19  
PUBLIC HEALTH CRISIS**

Pursuant to the Proclamation No. 929, series of 2020 issued by President Rodrigo Roa Duterte, declaring a State of Calamity throughout the Philippines due to the Coronavirus Disease 2019 (COVID-19) and in view of the extended implementation of Enhanced Community Quarantine (ECQ) and General Community Quarantine (GCQ) in the identified areas, the following guidelines, in addition to the existing safety standards approved by the DOLE and also to the PPA Memorandum Circular No. 18-2020, are hereby directed to be implemented in all on-going PPA infrastructure projects including the DOTr Tourism and Social Reform projects:

1. Only persons from Twenty-One (21) to Fifty-Nine (59) years of age, without pre-existing health conditions, such as, but not limited to immunodeficiency, comorbidities or other health risk and who did not come in contact with someone with COVID-19 shall be allowed to be included in the workforce for areas under ECQ and GCQ.
2. The Contractor shall provide for their personnel/workers the necessary welfare facilities and amenities, such as employees' quarters for board and lodging for the project area covered by the ECQ and GCQ, otherwise, prior to deployment, prescribed procedures shall be conducted at every instance of re-entry.
3. Adequate food, potable drinking water, disinfectants shall be made available by the Contractors for their in-house personnel/worker during the period of ECQ/GCQ.
4. Compliance to social distancing, proper hygiene and mandatory wearing of face masks and other protective personal equipment shall be ensured for all on-going projects as precautionary measures to avoid and contain the spread of COVID-19 in the work place.

5. Field Offices, employees' quarters, bunkhouses and other common areas shall be maintained to ensure cleanliness and daily disinfection of said areas must be conducted accordingly.
6. Contractors shall provide disinfection facilities such as handwashing station, foot bath and others to be placed at various locations of all on-going projects.
7. Contractors shall ensure that their projects are in compliance with the DOLE D.O. No. 13 series of 1998. Personnel and workers shall be provided with the supply of vitamins particularly Vitamin C and other over the counter medicines, quarantine facilities and oxygen tanks for emergency purposes.
8. Safety Officer of the Contractor shall regularly conduct briefing on the information regarding COVID-19 construction protocols on top of other safety requirements.
9. As preventive measure, daily monitoring of the pre and post work health conditions of workers shall be undertaken by the Contractor's health/safety officer particularly the temperature, blood pressure and exposure monitoring. Personnel with symptoms relative to COVID-19 shall be immediately isolated and quarantined for fourteen (14) days and if necessary, brought to the DOH COVID-19 treatment facility under strict confidentiality/privacy.
10. Daily health monitoring report shall be prepared by the Safety Officer and to be submitted to the assigned PPA Project Engineer/Port Engineer.
11. Proper protocols in accordance with the DTI and DOLE Interim Guidelines and the Local Government Unit policy on work place prevention and control of COVID-19 shall likewise be strictly observed.
12. Daily work activities shall be under strict monitoring by the Safety Officer to ensure compliance with safety standards and quarantine protocols.
13. Sharing of construction and office equipment is discouraged. However, if it cannot be avoided, disinfection of equipment in between transfer shall be conducted.
14. All materials and equipment brought inside the project site shall be disinfected, as much as possible.
15. Non-essential personnel, visitors and general public shall be restricted to enter the project site. All personnel entering the construction site premises on a temporary basis (e.g. Delivery truck drivers, inspectors, etc) shall be properly logged and checked for symptoms. Gatherings, liquors, and/or merry-making are strictly prohibited in the project site.

/s/

16. PPA Port/Resident Engineer shall ensure strict compliance to DOLE D.O. No. 13, series of 1998 and implementation of the mentioned COVID -19 precautionary measures in the work place.
17. Clustered and staggered deployment of employees within the construction site shall be observed to minimize personnel contact.
18. Contractors shall submit to the implementing unit the inventory of work activities including the proposed sequencing of activities to be followed and undertaken to comply to the required social distancing. Break times shall be conducted in a staggered manner.

For strict compliance.

  
**CONSTANTE T. FARIÑAS, JR.**

*C - MEMO*  
① Pts. forward a set/copies  
of these Guidelines to  
each DM for their info,  
reference and guidance  
② CAME file/pdf  
*[Signature]*



June 29, 2020

*[Signature]*  
JUL 1 2020

**MEMORANDUM**

**FOR :** The Assistant General Manager for Engineering  
Office of the Assistant General Manager for Engineering

**FROM :** The Manager  
Internal Audit Department (IAD)

**SUBJECT :** Construction Guidelines for Project Implementation during the  
period of Public Health Emergency

Last June 16, 2020, we received thru email the letter from the Construction Industry Authority of the Philippines (CIAP) to the General Manager dated June 15, 2020 (copy attached) regarding the above subject. CIAP is requesting PPA to assist them in disseminating the above Construction Guidelines to our stakeholders including contractors and implementing units.

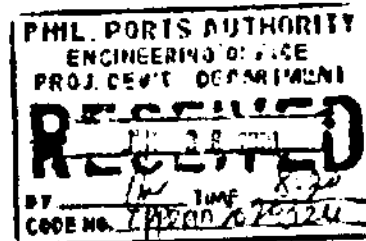
Relative to this, IAD being the implementing unit for Constructors Performance Evaluation System (CPES) and relative to its implementation, may we seek assistance from your good office in disseminating the attached guidelines to the PPA Engineering Units and PPA constructors

Thank you for your kind consideration

*[Signature]*  
VENICIUS V. VILLASEÑOR

Cc: The General Manager

Attachment/s: As stated





## Construction Guidelines for Project Implementation during the period of Public Health Emergency

### Background

The President declared a state of public health emergency through Presidential Proclamation No. 922 s. 2020 to address the Corona Virus Disease (COVID-19) threat, subsequently placing the whole of Luzon under Enhanced Community Quarantine (ECQ) on 16 March 2020.

The Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF), based on its risk assessment recommended the extension of the ECQ in high risk geographic areas in Luzon and the imposition of the ECQ in some high risk areas in Visayas and Mindanao, while proposing a General Community Quarantine (GCQ) in all low risk and moderate risk areas in the country from 1 May 2020 to 15 May 2020.

Different parts of the country are expected to progress through various levels of public health emergency and declared as high, medium, or low risk areas depending on the prevalence of COVID-19 cases and related statistics, thereby placing them under corresponding community quarantine status.

The construction industry which contributes about 4.2 million workers to the country's labor force, in anticipation of the lifting of ECQ, is getting ready to return to work and would like to ensure the safety and welfare of people, most especially those of its employees/workers. Construction industry players would like to focus on preventing the occurrence of and controlling the spread of the virus in the workplace, mindful that a single case of COVID-19 can lead to an interruption, if not total work stoppage.

The global pandemic has affected livelihoods, lifestyles and industries including the construction industry which relies heavily on human resources. Total work stoppage from the time ECQ was declared has had debilitating effects not just on workers who are mostly project based and therefore paid on a daily basis but on contractors as well, majority of whom or 68% are small and medium enterprises (SMEs).

The Philippine Domestic Construction Board (PDCB), an implementing board of the Construction Industry Authority of the Philippines (CIAP), mandated to formulate policies, plans, programs, and strategies for the development of the Philippine construction industry organized a Technical Working Group (TWG) comprised of representatives from contractors of varying sizes and suppliers coming from Luzon, Visayas and Mindanao to draft the proposed protocols for the industry in preparation for resumption of construction work in areas under quarantine. The TWG drafted the "Construction Guidelines for Project Implementation during the period of Public Health Emergency" as a reference for contractors and implementing agencies, to ensure viability of projects and protection from and spread of the corona virus.

The TWG considered four (4) major components of the project cycle, namely; Materials, Manpower, Machinery and Money or the 4Ms of construction in creating the

**PHILIPPINE DOMESTIC CONSTRUCTION BOARD**  
CONSTRUCTION INDUSTRY AUTHORITY OF THE PHILIPPINES  
An Attached Agency of the Department of Trade and Industry

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Mandaluybar, Philippines

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guidelines. These were developed considering SME contractors which employ the biggest chunk of the industry's labor workforce and large contractors involved in both public and private infrastructure projects as well as vertical construction. The guidelines will give pointers in managing their human resources at this critical time but will likewise give important directions to contractors in managing their business not just for survival but to be able to contribute to the country's economic recovery program.

The TWG is presenting options or courses of actions which contractors may consider depending on applicability to the project's unique characteristics while maintaining minimum requirements based on guidelines by government authorities such as the IATF Omnibus Guidelines for the Implementation of Community Quarantine in the Philippines, Department of Trade and Industry (DTI) and Department of Labor and Employment (DOLE) Interim Guidelines on Workplace Prevention and Control of COVID-19, and DOH Department Memorandum No. 2020-220, Interim Guidelines on the Return-to-Work.

These guidelines are subject to periodic review to better respond to developments and ensure workers health and protection as well as compliance with government regulations.

### **Purpose**

The guidelines will set key principles and minimum requirements that define responsible, healthy and safe operations for construction related operations under COVID-19 and ensure the survival of business as well as the protection of workers.

### **Scope / Coverage**

The guidelines will include prevention, detection, and rapid response measures designed to achieve the principles above while maintaining business continuity across the construction industry.

### **Policy Content / Guidelines**

#### **Materials**

##### **1. Deliveries**

1. All equipment and material deliveries must be carefully planned and monitored.
2. Transition and delivery zones are identified and limited to select personnel, i.e., receivers and deliverers.
  - 2.1. Transition personnel are regularly monitored, always provided required Personal Protective Equipment (PPEs) and may be included for optional testing.
  - 2.2. Social distancing and other protocols by the Department of Health (DOH) should be followed.
3. As much as possible, cargo is unloaded only by the receivers, while the deliverers do not leave their vehicles. If the receivers are not enough to unload the cargo, the deliverers must unload while the receiver has to wait at a secured distance until completed.

4. All cargo should undergo proper disinfection procedures before use. Likewise, involved staff should also be properly disinfected before entering the jobsite.
  - 4.1. Materials, which are exposed to the sun, such as concrete and gravel, need not be disinfected.

## **Manpower**

### ***I. Awareness and Communication***

1. Active communication between the workers, safety officers (as specified under Section 14 of R.A. 11058 and its Implementing Rules and Regulations (IRR) as specified in DOLE D.O. 198 S. 2018), site supervisors, and management is advised in planning and implementing the protocols.
  - 1.1. All languages and dialects should be accounted for to ensure proper communication.
2. Infographics (may adopt DOH's), signages, and posters on health and safety measures (see Annex A) must be posted at entry points and strategic areas:
  - 2.1. Daily updates on the latest developments.
  - 2.2. Self-screening measures.
  - 2.3. COVID-19 Hotline.
3. As much as possible, all workers should exercise the practices for reducing the risk of transmission, and proper hygiene as identified by the DOH:
  - 3.1. Social distancing (at least one (1) meter distance from next person).
  - 3.2. Proper handwashing using anti-bacterial soap (or use alcohol-based hand sanitizer when unavailable).
  - 3.3. Avoid contact with own eyes, nose, and mouth.
  - 3.4. Prohibit spitting.
  - 3.5. Covering of mouth with tissue or arm (if tissue is unavailable) when sneezing or coughing.
  - 3.6. Use and remove PPE with care.
  - 3.7. Do not share personal belongings such as phones, pens, PPEs.
  - 3.8. Avoid physical greetings (e.g. handshakes, hugs).
4. All workers' status on-site and off-site, are properly noted at all times by the safety officers.
  - 4.1. Fit to work
  - 4.2. Sick
  - 4.3. High temperature
  - 4.4. Other conditions
5. An acceptable level of health evaluation is properly communicated between new hires and management.
6. All workers would need to provide their location or place of residence prior to working. This is to help create a proper algorithm for contact tracing.
  - 6.1. Additionally, workers coming from COVID-19 hotspots would need to be identified.
7. Quarantined workers should also be kept track of under strict confidentiality and privacy.

### ***II. Clearing for Return to Work***

1. Stringent qualification criteria for employees/workers:

- 1.1. Must be 21 to 59-year-old, without pre-existing health conditions, such as, but not limited to, immunodeficiency, comorbidities, or other health risks, including any person who resides with the aforementioned.
- 1.2. Employees or consultants who are 60-year-old or above may be part of the workforce for construction projects as may be allowed under General Community Quarantine (GCQ) and ECQ guidelines under Omnibus Guidelines on the Implementation of Community Quarantine in the Philippines dated 15 May 2020 which states that those aged 60 and above may be allowed to work in permitted industries and offices.
- 1.3. Must have no COVID 19 symptoms.
2. Screening and entry at construction site. Item 4, Section 8 of the Omnibus Guidelines on the Implementation of Community Quarantine in the Philippines, dated 15 May 2020, states that "Compliance with Joint DTI-DOLE Return-to-Work Guidelines and DOH Return-to-Work Guidelines shall be considered sufficient compliance with minimum health standards. In no case shall the testing of all returning workers be construed as a condition precedent for his/her return." The most important screening step is checking all returning workers for symptoms within the last 14 days and excluding anyone who is symptomatic. (Annex B) Contractors have the option to test workers for COVID-19 thru DOH prescribed testing protocols to determine if there is asymptomatic transmission.
  - 2.1. The Human Resource Department should undertake daily health pre-screening (see Annexes C & D – DOLE Work Resumption Protocol & pre-screening sample form). Returning employees/workers should be made aware of giving accurate information as specified in RA 11332.
  - 2.2. All returning employees/workers must declare (via SMS) any recent travel history to or residence in an area with a reported case of local transmission of COVID-19 over the 14-days prior to entry.
  - 2.3. Returning workers that do not show any symptoms will be quarantined for 14 days within the jobsite and will be allowed to work under a zoned or grouped area.
  - 2.4. Those who have been living/confined in the barracks during ECO/GCQ period for at least 14 days and with no symptoms, will be allowed to work immediately.
  - 2.5. Management should have an understanding and plan on how the workers travel to and from the jobsites.
  - 2.6. A heightened gate entrance screening protocol (see Annex E – Sample Protocol for Screening Employees and Visitors per DTI-DOLE Interim Guidelines) with the use of non-contact thermal scanners on ALL personnel upon entry to construction premises will be implemented. He/She must declare recent possible exposure to confirmed COVID-19 cases, including travel history to or residence in an area with reported local transmission of COVID-19 disease. The individual should also attest that they are not experiencing the following symptoms: (see Annex F – Daily COVID-19 Health Checklist Form)
    - 2.6.1. Fever
    - 2.6.2. Cough
    - 2.6.3. Shortness of breath
    - 2.6.4. Colds
    - 2.6.5. Sore throat

- 2.6.6. Runny nose
- 2.6.7. Nasal congestion
- 2.6.8. Muscle pains
- 2.6.9. Headache
- 2.6.10. Difficulty of breathing
- 2.6.11. Diarrhea
- 2.6.12. Loss of sense of smell
- 2.6.13. Loss of sense of taste
- 2.7. Security guard or assigned personnel/ safety engineers on duty will then refer these personnel to the Safety and Health Personnel, who will then conduct the DOH Decision Tool for COVID-19 Assessment.
- 2.8. Employers shall provide the DOLE through its Regional Office copy furnished DOH, monthly report of illness, diseases and injuries utilizing the DOLE Work Accident/Illness Report Form (WAIR) (see Annex G).
- 3. Suspected Cases (Possible cases of COVID-19)
  - 3.1. Any individual exhibiting flu-like symptoms should not report to work. Instead, they should do the following:
    - 3.1.1. Self-isolate, alert their safety officers or other applicable authorities.
    - 3.1.2. Contact proper health authorities for additional guidance.
  - 3.2. Employees/workers, who had the COVID-19 virus, should do the following before reporting to work:
    - 3.2.1. Fulfill the adequate time for self-quarantining as recommended by the DOH.
    - 3.2.2. Test negative for COVID-19.
    - 3.2.3. Receive proper medical clearance, before reporting to work.
  - 3.3. In the event of a worker contracting COVID-19 while working, the management should do the following:
    - 3.3.1. Isolate the worker immediately in a separate well-ventilated holding area (or in site isolation room) in the workplace, away from other workers.
    - 3.3.2. Contact local government and health authorities.
    - 3.3.3. Gather records of all people who have worked with the infected worker, who tested positive within the past four weeks.
    - 3.3.4. Gather information on those who have been in location or shared equipment with the person.
    - 3.3.5. Provide COVID-19 testing to all workers, who have been working closely with the infected individual.
    - 3.3.6. Be ready to present the information to the appropriate authorities.
    - 3.3.7. Inform the wider workforce of the situation while protecting the privacy of the individual.
    - 3.3.8. Clean and disinfect all site surfaces and equipment.
    - 3.3.9. Follow any additional directions from local government and health authorities.
  - 3.4. For senior personnel, who are working in multiple jobsites, they are expected to self-quarantine for at least 14 days. If there has been a breach in one of their jobsites.
  - 3.5. The safety officer should have a knowledge on the proximate hospitals or quarantine facilities to ensure that in the event of a COVID-19 incident, workers can be given proper healthcare.

### **III. Monitoring**

- 1. Health Checks**
  - 1.1. Regular monitoring of personnel's health, especially for COVID-19 symptoms (e.g., mandatory regular no contact temperature check).
  - 1.2. Day to day monitoring of personnel's health.
- 2. Workers Hygiene**
  - 2.1. Constant reminder on proper coughing etiquette.
- 3. Limit number of Work Personnel**
  - 3.1. Limited mobilization of personnel and minimized skeletal staff.

### **IV. Proper Work Attire**

- 1. All workers must wear the prescribed clothing of the DOLE-OSHC:**
  - 1.1. Shirt with sleeves
  - 1.2. Pants
  - 1.3. Closed-toe boots
  - 1.4. Hard hat
  - 1.5. High visibility vest
  - 1.6. Other necessary Personal Protective Equipment (i.e. face masks, gloves, goggles, face shields, etc.) shall be prescribed based on specific characteristics of project.
- 2. As per the DOH, all workers are expected to wear proper face masks.**

### **V. Social Distancing and Precautionary Measures**

- 1. Social distancing should be observed at the construction site and in the office:**
  - 1.1. All workers should respect social distancing guidelines, as much as possible.
- 2. Provision for transport compliant with social distancing requirements.**
- 3. Provision of On-/Near-Site accommodations/barracks, where available.**
  - 3.1. Enough space should be provided for every employee/worker staying in the barracks to ensure that social distancing (at least 50% reduction in density of people) are adequately implemented. This can be achieved either by providing additional space/facilities or by having occupants work (and sleep) in shifts.
  - 3.2. Segregate employees/workers who are coming back to work from those who originally stayed in the barracks during the ECQ period.
  - 3.3. Barracks should have at least one (1) meter of physical distance from each occupant and/or provision of a physical barrier in between occupants.
  - 3.4. Should be well ventilated / windows opened to allow fresh air circulation.
- 4. Provision of dedicated point-to-point shuttle service (residence-workplace-residence and compliant with social distancing).**
- 5. Observe social distancing (e.g., no sharing of workspaces, staggered lunch breaks, use of large conference rooms only) and hygiene measures (e.g., provide hand washing and disinfection stations, mandatory use of face masks) in workplaces, shuttles and accommodations.**
  - 5.1. Sp&V/alternating shifts are encouraged to avoid extensive intermingling.
  - 5.2. Breaks should be staggered to limit the number of people in proximity with each other.

- 5.3. Individuals are expected to clean up their own areas after eating with proper disinfectants.
- 5.4. Limit the number of people operating or occupying freight elevators.
- 5.5. Designate smoking area:
  - 5.5.1. Smokers/vapers must use designated area or do so off-site and butts are to be placed in the designated receptacle. Hands must be washed before and after smoking.
  - 5.5.2. Stand so that smoke or vapor produced is not going into another person's breathing zone.
- 5.6. Site meetings:
  - 5.6.1. Only absolutely necessary meeting participants should attend.
  - 5.6.2. Attendees should be one (1) meter apart from each other.
  - 5.6.3. Rooms should be well ventilated / windows opened to allow fresh air circulation.
  - 5.6.4. Hold meetings in open areas where possible.
  - 5.6.5. Conduct toolbox meetings in wide open spaces to enable workers to keep the required physical distance of at least one (1) meter. (see Annex H).
  - 5.6.6. Meetings are to be held through teleconferencing or videoconferencing, where possible.

#### **VI. Site Operations / Construction Work Site**

- 1. Access and Movement to/from Construction Site
  - 1.1. If possible, establish one-way staircases and walkways to minimize workers' contact.
  - 1.2. Management can lock up possible decontamination chambers (e.g. swimming pool grade-chlorine).
  - 1.3. All people entering and exiting the workplace should be registered, for easier contact tracing in the event of an outbreak.
  - 1.4. All non-essential workers are prohibited from entering the jobsite.
- 2. Limiting and Removing Internal touch points areas.
- 3. Compartmentalization
  - 3.1. If possible, divide the construction site into zones or other methods to keep workers physically separated. This will promote social distancing and will make containment of possible outbreak easier.
    - 3.1.1. Limit on the number of people per zone is advised.
    - 3.1.2. Management can consider reducing workforce in the jobsite.
- 4. Construction Site Cleaning
  - 4.1. Regular disinfection of workplaces, shuttles, and accommodations.
  - 4.2. All offices and jobsites should disinfect the following at least twice per day
    - 4.2.1. Door handles
    - 4.2.2. Railings
    - 4.2.3. Ladders
    - 4.2.4. Switches
    - 4.2.5. Controls
    - 4.2.6. Shared equipment
    - 4.2.7. Common and eating areas
    - 4.2.8. Personal workstations

- 4.3. Hands and common tools/equipment are cleaned or disinfected after each task.
- 4.4. Awareness on location of commonly used items
5. All offices and jobsites should implement additional cleaning measures of common areas as recommended by the DOH.
6. Management can look up possible decontamination chambers (e.g. chlorine, iodine, betadine, potassium persulfate).
  - 6.1. Demisting only decontaminates the surface, thus the need for PPEs.
  - 6.2. Suggested additional sanitary measures to be implemented/installed on site but are not limited to the following:
    - 6.2.1. Water stations
    - 6.2.2. Proper handwashing areas and hand washing protocol.
    - 6.2.3. Alcohol-based hand sanitizer shall be provided in all department areas, entrances, canteens, beside hand punch machines and other facilities.
    - 6.2.4. Disinfectant wiping products.
    - 6.2.5. Footwear disinfection treatment units (foot baths) before entering site premises or facilities (staff houses, barracks, canteens/mess halls, site offices and others).
7. Limit and remove internal touch point areas (e.g. coffee machines, water fountains, common pens). If possible, also remove doors/ door handles for jobsites.
8. A proper waste and disposal area must be provided, as well as proper disposal of contaminated products.

#### *VII. Additional Guidelines for Vertical and Horizontal Projects*

1. If possible, all construction workers are to be housed in either on-site barracks, or off-site barracks. This would make monitoring of workers' activities easier.
  - 1.1. All workers must use the same vehicles they came into work in, if returning to the off-site barracks.
  - 1.2. All vehicles would need to be disinfected, before being ready for use the next day.
2. Management can also look into using the floors of buildings, as barracks, with proper permission of the owners.

#### **Machinery**

1. All equipment deliveries must be carefully planned, monitored and managed to avoid the risk of COVID-19 transmission.
2. All delivered equipment must be cleaned and disinfected before use.
3. Assign regular worker to use the equipment, if possible. If sharing cannot be prevented, take precautions and follow the cleaning guide before and after each use.
4. Clean equipment before and after each day's work with a disinfectant, concentrating on points of contact such as handles.
5. If equipment needs to be transferred to other construction sites, the following action must be taken into considerations:
  - 5.1. Plan, monitor and manage the transfer of equipment.
  - 5.2. Equipment should be disinfected before transporting.

- 5.3. Transporting driver must be recorded including the assistant.
- 5.4. At the delivery site, equipment should be properly endorsed.
- 5.5. Once the equipment is received at the project site, number 2, 3 and 4 must be done.

## **Money**

*Contracting parties need to discuss, before resumption or start of work, contract provisions on: Payments, Variations and Timelines considering the effects of current government health and safety standards that have to be complied with to prevent the spread of the coronavirus pandemic and ensure workers' protection from the contagious disease. Contractors' concern on cash flow, price escalation, time extensions and productivity will need to be established and agreed with project owners. Contractors need to devise project implementation plan aligned with government approved health and safety protocols.*

Contractors need to familiarize themselves with Republic Act (R.A.) 11469 or Bayanihan to Heal As One Act; R.A. 11058 and its IRR as specified in DOLE D.O. 198 S. 2018, and DOLE's D.O. 13 and ensure contracts are aligned with these landmark regulations. For projects with signed contracts before the onset of the coronavirus pandemic, contractors need to check on DOLE's guidelines on drafting new contracts so provisions on employment details, i.e. accommodations, meals, etc. can be included as these are expected to be heavily affected by new guidelines on health and safety. Company code of disciplines may likewise need to be reviewed and re-written to consider pandemic guidelines and ensure employees/workers' full support and cooperation.

Pursuant to Section 21 of DOLE D.O. 198, s. 2018, "The total cost of implementing a OSH program shall be an integral part of the operations cost. It shall be a separate pay item in construction and in all contracting or subcontracting arrangements " to cover the cost inflicted during this Public Health Emergency. Those costs include, but are not limited, to testing kits; personal protective equipment; workers' barracks; quarantine facilities; isolation rooms; disinfectants; sanitation equipment and facilities; and other expenses relative to compliance with safety and health standards during construction.

Contractors should conduct periodic audits (frequency to be determined based on a project scale and scope) to verify that the appropriate measures have been implemented and are maintained.

The site supervisors and safety officers are expected to conduct daily audits, and safety reports to management in order to make sure that the appropriate measures are implemented and followed.

Construction companies should expect to deal with heightened safety and health guidelines until such time that the pandemic has fully been eradicated, and:

1. Analyze contract requirements;
2. Comply with contractual notice requirements;
3. Adapt and Adjust schedule;
4. Coordinate and Cooperate with all participants; and

5. Document everything.

*Risk Assessment and Response:*

1. All contractors would need to guarantee the minimum level of standards to protect the health of the workers engaged in the construction sites.
2. Before any activity is resumed, all hazards, due to the halting of work, must be reviewed and controlled.
  - 2.1. Workers involved should have proper understanding of the operations and environment condition checking
3. An integrated continuity plan should also be provided in the event of a partial or complete shutdown of jobsite or if jobsite operations are severely limited.
4. All contractors should complete an integrated continuity plan to respond to partial or complete shutdown of construction sites or in the case of a severe limitation of site operations.

The COVID-19 pandemic affects working hours and earnings in all businesses, globally. However, the construction industry is unique with respect to the COVID-19 because construction contracts typically contain provisions about time for performance and fees for failing to perform on time. There is no question that all participants in the construction industry have experienced, and will continue to experience, impacts on their operations because of COVID-19 and experts say the fallout is one more factor poised to affect construction firms. These impacts include, among others, schedule delays, workforce disruptions, equipment and supply chain disruptions, reduced productivity due to on site health and safety measures (e.g., social distancing, staggering of work, enhanced sanitary measures, etc.), permit delays or restrictions on new permits, and financing restrictions or cash flow shortages.

Therefore, it is critical that construction companies be proactive rather than reactive in dealing with the COVID-19 and it is highly recommended that they take the following steps with respect to the coronavirus:

1. Define – identify the company's main vulnerabilities (convene a meeting with senior management and decision-makers to identify potential impacts on the company).
2. Assess – understand if and how the company is prepared to deal with the company's main vulnerabilities (review any existing plans and procedures to ensure they are current and begin preparing business continuity and crisis management plans and procedures aimed at minimizing potential impacts on the company).
3. Implement and Manage – ensure the company's plans and procedures work (work with senior management and decision-makers to establish and embed response and recovery arrangements and confirm senior management and decision-makers understand their roles and support how the plans and procedures will be used).
4. Communicate and Remain Vigilant – ensure the company's teams are informed (assign clear responsibilities for internal and external communications).

This pandemic was not foreseeable and unfortunately, its duration and fallout remain uncertain. What is certain is that the world is transitioning. Being prepared for this will be essential to managing the outcome and minimizing negative impacts.

## Monitoring

DTI-CIAP is revitalizing its Joint Administrative Order No. 01, S. 2011 with DOLE, DPWH, DILG and the Professional Regulation Commission (PRC) to strengthen coordination and enhance the implementation of the Construction Guidelines on Project Implementation for the period of Public Health Emergency, DOLE D.O. 13 and R.A. 11058 and its IRR as specified in DOLE D.O. 198 S. 2018, and specifically, enforce strict monitoring of construction activities.

The DOLE shall refer to the Philippine Contractors Accreditation Board (PCAB) its findings, after due process, on any act or omission committed by construction contractors in violation of labor standards, safety rules and regulations and other pertinent policies.

## Effectivity

These guidelines shall take effect after approval by the CIAP Board and posting in the official gazette ([www.officialgazette.gov.ph](http://www.officialgazette.gov.ph)) and CIAP website ([www.ciap.dti.gov.ph](http://www.ciap.dti.gov.ph)).

## References

1. WHO – Getting your workplace ready for COVID-19, 19 March 2020
2. Philippines – Onyxus Guidelines on the Implementation of Community Quarantine in the Philippines as of 15 May 2020
3. Philippines – COVID-19 Protocols for Construction Sites Workers Safety and Security Version 3 by Philippine Constructors Association (PCA) as of 25 April 2020
4. Australia – Building and Construction Industry: Minimizing the Risk and exposure to COVID-19 as of 9 April 2020
5. Canada – COVID-19 – Standardized Protocols for all Canadian Construction Sites Version 4
6. New Zealand COVID-19, V&H Construction Protocols Version 2
7. New Zealand – COVID-19 Health and Safety Protocols for New Zealand Residential Construction Sites Version 3, 22 April 2020
8. DOH – Administrative Order No. 2020-015, "Guidelines on the Risk-Based Public Health Standards for COVID-19 Mitigation"
9. DOH Department Memorandum No. 2020-151, Interim Guidelines on Expanded Testing for COVID-19, reiterated under DOH D.M. No. 2020-174
10. DOH D.M. No. 2020-0220, s. 2020, Interim Guidelines on the Return-to-Work as of 11 May 2020
11. DPWH D.O. 39, S. 2020, Revised Construction Safety Guidelines for the Implementation of Infrastructure Projects during the COVID-19 Public Health Crisis, repeating D.O. No. 35, S. 2020
12. DTI - DOLE Interim Guidelines on Workplace Prevention and Control of COVID-19
13. DTI and DOLE Webinar on 8 May 2020
14. DOLE Labor Advisory No. 19, S. 2020, Guidelines on the Cost of COVID-19 Prevention and Control Measures, 16 May 2020
15. DOLE Department Order 13: Guidelines Governing Occupational Safety and Health in the Construction Industry
16. R.A.11058, "An Act Strengthening Compliance with Occupational Safety and Health Standards and Providing Penalties for Violations thereof" and its Implementing Rules and Regulations as specified in DOLE D.O. 198 S. 2018
17. DOLE-DPWH-DTI-DILG-PRC Joint Administrative Order No. 1, Series of 2011

18. *EI Guidelines on the COVID-19 Prevention and Control at the Workplace (Alert level code RED sub-level 2)*
19. *DMCI Work Resumption Protocols as of 22 April 2020*

### **Acknowledgment**

The Construction Guidelines for Project Implementation during the period of Public Health Emergency would not have been possible without the patience, diligence and selfless dedication of the following members of the Technical Working Group (TWG) who religiously participated in the deliberations and drafting work:

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#### **Government**

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 Assistant Secretary Antonio Molano Jr. – DPWH

The Technical Working Group (TWG) was ably assisted by the following staff of the Philippine Domestic Construction Board:

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15 June 2020

Atty. JAY DANIEL R. SANTIAGO  
General Manager  
Philippines Ports Authority (PPA)  
Bonifacio Drive, South Harbor  
Port Area, Manila

**Subject: Construction Guidelines for Project Implementation during the period of Public Health Emergency**

Dear Atty. Santiago:

Greetings!

In line with the President's declaration of Public Health Emergency in the country to address COVID-19, the Philippine Domestic Construction Board (PDCB), an implementing board of the Construction Industry Authority of the Philippines (CIAP), mandated to formulate policies, plans, programs, and strategies for the development of the Philippine construction industry organized a Technical Working Group (TWG) comprised of representatives from contractors of varying sizes and suppliers coming from Luzon, Visayas and Mindanao to formulate protocols for the industry for resumption of construction work in areas under quarantine.

As a result, we have developed the "Construction Guidelines for Project Implementation during the period of Public Health Emergency" to serve as reference for contractors and implementing agencies, to ensure viability of projects and protection from and spread of the coronavirus. The Guidelines were approved by the PDCB and CIAP Board on May 18 and June 2020, respectively.

These guidelines set key principles and minimum requirements that define responsible, healthy and safe operations for construction-related operations under COVID-19 and ensure the survival of business as well as the protection of workers. These guidelines include prevention, detection, and rapid response measures designed to achieve the principles above while maintaining business continuity across the construction industry.

These also present options or courses of actions which contractors may consider depending on applicability to the project's unique characteristics while maintaining minimum requirements based on guidelines by government authorities such as the IATF Omnibus Guidelines for the Implementation of Community Quarantine in the Philippines, Department of Trade and Industry (DTI) and Department of Labor and Employment (DOLE) Interim Guidelines on Workplace Prevention and Control of COVID-19, and DOH Department Memorandum No. 2020-220, Interim Guidelines on the Return-to-Work.

In this regard, may we respectfully furnish you with the copy of the approved Construction Guidelines (copy attached), for your reference. Further, may we also

**PHILIPPINE DOMESTIC CONSTRUCTION BOARD**  
**CONSTRUCTION INDUSTRY AUTHORITY OF THE PHILIPPINES**  
An Attached Agency of the Department of Trade and Industry

PPA Executive Building Complex  
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request your kind assistance in disseminating these Construction Guidelines among your stakeholders, including contractors and implementing agencies.

You may also visit CIAP's website at [www.ciap.dti.gov.ph](http://www.ciap.dti.gov.ph) for the latest updates and version of these Construction Guidelines.

For questions and clarifications, kindly email PDCB Secretariat at [pdcbs@dti.gov.ph](mailto:pdcbs@dti.gov.ph).  
Thank you for your usual support.

Sincerely,



DORIS U. GACHO

Executive Director, PDCB



## **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); or
- ☐ (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;  
and
- ☐ (c) Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;  
and
- ☐ (d) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

#### Technical Documents

- ☐ (e) 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
- ☐ (f) 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
- ☐ (g) Philippine Contractors Accreditation Board (PCAB) License; or  
Special PCAB License in case of Joint Ventures;  
and registration for the type and cost of the contract to be bid; and
- ☐ (h) 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
- ☐ (i) 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
- ☐ (j) 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

- ☐ (k) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the 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; and
- ☐ (l) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

### ***Class "B" Documents***

- ☐ (m) 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**

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

### ***Other documentary requirements under RA No. 9184***

- ☐ (o) Original of duly signed Bid Prices in the Bill of Quantities; and
- ☐ (p) 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
- ☐ (q) 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: **Legazpi Port Rehabilitation Project, Port of Legazpi, Legazpi, Albay**;
- 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

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

- 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 contract for the **Legazpi Port Rehabilitation Project, Port of Legazpi, Legazpi, Albay of the Philippine Ports Authority.**
- l. 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 ALL ON-GOING GOVERNMENT AND PRIVATE CONTRACTS,  
INCLUDING CONTRACTS AWARDED BUT NOT YET STARTED, WHETHER SIMILAR OR NOT SIMILAR IN NATURE**

Name of the Contract or Title Of the Project 1]	Owner's Name and Address	Nature/ Scope of Work 2]	Contractor's Role (in percentage) 3]	Total Contract Value At		Date of Award 5]	Value of Outstanding Works	Estimated Time of Completion	% of Accomplishment		Contract Duration 5]	
				Award	Project Completion	Escalated Value to Present Prices 4]			Planned	Actual	Start	Completed
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 or defined in the contract entered/executed by the parties
- 2] With special reference to the Scope of Works as described/enumerated in the advertised Invitation To Bid.
- 3] Indicate 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. Specify the "Escalation Factor" used to escalate the Contract Value from completion date to the advertisement date of the Invitation to Bid per section 23.11.2 (3) of R.A. 9184.
- 5] State Month and Year.

This Statement shall be supported by:

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

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

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

\_\_\_\_\_  
Date

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

Name of the Contract or Title Of the Project	Owner's Name and Address	Nature/Scope of Work	Contractor's Role and Percentage Of Participation	Total Contract Value At			Date of Award	Value of Outstanding Works	Contract Duration	
				Award	Completion	Escalated Value to Present Prices			Start	Completed

NOTE :

1. The prospective bidder must have completed an SLCC that is similar to the contract to be bid, and whose value, adjusted to current prices using the PSA consumer price indices, must be at least fifty percent (50%) of the ABC to be bid.
2. This Statement shall be supported by:
  - a. Notice of Award and / or Notice to Proceed.
  - b. Project Owner's Certificate of Final acceptance issued by the owner other than the Contractor or Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory.

Name of Firm/Applicant \_\_\_\_\_ Authorized Signing Official \_\_\_\_\_ Date \_\_\_\_\_

## EXPERIENCE RECORD ON SIMILARLY COMPLETED PROJECTS

Similar Major Categories of Work 1]	Unit of Measure	Quantity	Title of the Project				Unit of Measure	Quantity
			Title of the Project	Title of the Project	Title of the Project	Title of the Project		
1. Offshore Pile Driving of Steel Pipe Piles	l.m.	3,864						
2. Reinforced Concrete Works	cu.m.	1,156						
3. Rockworks (50-100kg./pc.)	cu.m.	3,251						
4. Fill Materials	cu.m.	16,440						
5. Portland Cement Concrete Pavement (including aggregate base course)	sq.m.	7,816						

NOTE: 1] Submit the Certificate of Completion/Certificate of Acceptance by the project owner, Final Recapitulation/Bill of Quantities and/or Constructor Performance Evaluation System (CPES) ratings, 1<sup>st</sup>, 2<sup>nd</sup> & Final visit (if applicable). Projects with no Certificate of Completion/Acceptance and Recapitulation/Bill of Quantities shall not be considered.

2] The Owner's Certificate of Final Acceptance, or the Constructors Performance Evaluation Summary (CPES) Final Rating and/or the Certificate of Completion, must be satisfactory.

Name of Firm/Applicant

Authorized Signing Official

Date

(Revised Form : September 2012)

## 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.

## LIST OF CONTRACTOR'S PERSONNEL

I hereby declare that the following key personnel enumerated below, with attached resume/bio-data, including valid PRC License, for the various positions / functions, are available for the project applied for:

Position of Key Personnel	Name	No. of Key Personnel	Similar Experience in the Position (Years) <sup>1)</sup>	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 "A"
Project Engineer					PRC License (CE Preferred) Complete Qualification and Experience Data Certificate of Commitment	Annex "A"
Materials Engineer					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 "A"
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 "A"
Foreman					Complete Qualification and Experience Data Certificate of Commitment	Annex "A"
Other Position(s)					Complete Qualification and Experience Data Certificate of Commitment	Annex "A"

NOTE: 1. Minimum qualification requirements: (work experience is similar in nature and complexity to the project to be bid with regard to Registration Particulars of the Contractor's License)

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/Applicant  
REVISED FORM (September 2012)

Authorized Signing Official

Date

## LIST OF CONTRACTOR'S EQUIPMENT UNITS

I hereby declare that the following equipment listed below which are owned, leased or under purchase agreement are in good operating condition and are available for the duration of the project:

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

1] Indicate if owned or leased as listed in the Checklist/Bidding Documents. For owned equipment, as required, submit proof of ownership (i.e. deed of sale, sales invoice, official receipt). For 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. For newly purchased barge/tugboat, submit Deed of Sale together with an application for Marina Certificate of Ownership duly received/authenticated by Marina with corresponding valid Cargo Ship Safety Certificate. For leased equipment, submit duly notarized copy of lease contract together with a copy of the Marina Owner's (Lessor's) Certificate and valid Cargo Ship Safety Certificate.

2] The unit of each equipment shall be as indicated in the Checklist/Bidding Documents, 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).

Name of Firm/Applicant

Authorized Signing Official

Date

REVISED FORM (January 2011)

**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 **Legazpi Port Rehabilitation Project, Port of Legazpi, Legazpi, Albay 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 **Legazpi Port Rehabilitation Project, Port of Legazpi, Legazpi, Albay 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 **Legazpi Port Rehabilitation Project, Port of Legazpi, Legazpi, Albay 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].

---

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 : \_\_\_\_\_  
Proposed Project Description : \_\_\_\_\_  
Location : \_\_\_\_\_

### MINIMUM SCOPE OF CONSTRUCTION METHODOLOGY

#### A. REHABILITATION OF EXISTING BACK-UP AREA

1. Removal of existing lamp posts (2 units), damaged portion of concrete pavement (9,607 sq.m.) and scattered rocks (479 cu.m.) including disposal and turning-over of recovered materials with value to PPA authority
2. Excavation of existing fill materials up to required elevation (1,897 cu.m.)
3. Supply and delivery to site tubular sheet piles, 900mm diameter x 13mm thick x 24m long (2,402 m.t.) including driving (7,728 l.m.), application of protective coating (10,015 sq.m.) and installation of various steel accessories (35,627 kg.)
4. Supply and place concrete fill for tubular sheet piles (580 cu.m.) including installation of steel reinforcements (72,360 kg.) and sand filler (356 cu.m.)
5. Supply and delivery to site 400mm x 400mm x 15m long RC piles (5 units) including driving (75 l.m.) and chipping of piles up to required elevation (5 units)
6. Supply and installation of tie rods of various sizes and lengths: a) 32mm diameter x 16m (33 sets), b) 32mm diameter x 12m (1 set), c) 70mm diameter x 20m (140 sets), d) 70mm diameter x 18m (18 sets), e) 70mm diameter x 16m (1 set), f) 70mm diameter x 15m (1 set) and g) 70mm diameter x 14m (1 set)
7. Supply and place 50-100 kg/pc core rocks (6,501 cu.m.)
8. Supply and place sand and gravel fill (27,726 cu.m.), geotextile filter (5,906 sq.m.), selected fill (5,153 cu.m.) and gravel bedding (135 cu.m.)
9. Construct 300mm thick portland cement concrete pavement (15,632 sq.m.) including placement of gravel base course (3,127 cu.m.)
10. Supply and place 3,500 psi concrete (1,731 cu.m.) including steel reinforcements (133,496 kg)
11. Supply and installation of 50T, T-head mooring bollards (17sets) and V-type rubber dock fenders, V600H x 2000L (32 sets)
12. Supply and installation of 750mm diameter RCPC (58 l.m.) and steel gratings (480 l.m.)

#### B. PORT LIGHTING SYSTEM

1. Supply and installation of hot-dipped galvanized floodlight steel poles, 12 meter-high (5 units) and 10 meter-high (1 unit), with 250 watt LED floodlight fixtures (42 sets), including accessories, protective devices, conduit pipes and fittings and electrical wires and cables of various sizes

**NOTES:**

The narrative construction method will guide and familiarize the contractor and the PPA on how the project shall be carried out in accordance with the highest standard of workmanship.

The construction method shall be consistent with the Bar Chart / S-Curve Schedule, Equipment Schedule and Manpower Schedule.

---

Signature  
(Authorized Signing Official)

**MANPOWER SCHEDULE**

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

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

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

MANPOWER (Minimum)	CONTRACT DURATION (_____ Calendar Days)																				
	M O N T H L Y																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Project Manager																					
Project Engineer																					
Materials Engineer																					
Construction Safety and Health Officer																					
Foreman																					
Specify other applicable positions, ie.:																					
- Carpenter																					
- Steelman																					
- Mason																					
- Electrician																					
- Rigger																					
- Others																					

\_\_\_\_\_  
Signature  
(Authorized Signing Official)



## CASHFLOW BY QUARTER AND PAYMENT SCHEDULE

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

Proposed 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.

\_\_\_\_\_  
Signature  
(Authorized Signing Official)

## **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]*