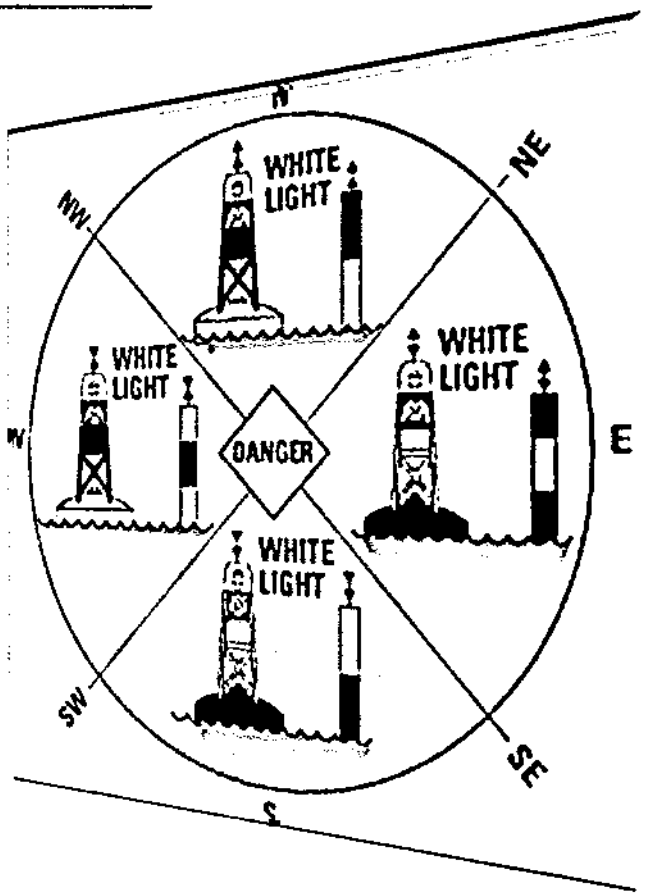
PHILIPPINE PORTS AUTHORITY

PPA Bldg., Bonifacio Drive, South Harbor, Port Area, Manila, Philippines

# PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON




# BID DOCUMENTS

DSD-CAPEX-004

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# *Glossary of Terms, Abbreviations, and Acronyms*

**ABC** – Approved Budget for the Contract.

**ARCC** – Allowable Range of Contract Cost.

**BAC** – Bids and Awards Committee.

**Bid** – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender.* (2016 revised IRR, Section 5[c])

**Bidder** – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

**Bidding Documents** – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

**BIR** – Bureau of Internal Revenue.

**BSP** – Bangko Sentral ng Pilipinas.

**CDA** – Cooperative Development Authority.

**Consulting Services** – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

**Contract** – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

**Contractor** – is a natural or juridical entity whose proposal was accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded. Contractor as used in these Bidding Documents may likewise refer to a supplier, distributor, manufacturer, or consultant.

**CPI** – Consumer Price Index.

**DOLE** – Department of Labor and Employment.

**DTI** – Department of Trade and Industry.

**Foreign-funded Procurement or Foreign-Assisted Project** – Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

**GFI** – Government Financial Institution.

**GOCC** – Government-owned and/or –controlled corporation.

**Goods** – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term "related" or "analogous services" shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

**GOP** – Government of the Philippines.

**Infrastructure Projects** – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

**LGUs** – Local Government Units.

**NFCC** – Net Financial Contracting Capacity.

**NGA** – National Government Agency.

**PCAB** – Philippine Contractors Accreditation Board.

**PhilGEPS** - Philippine Government Electronic Procurement System.

**Procurement Project** – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

**PSA** – Philippine Statistics Authority.

**SEC** – Securities and Exchange Commission.

**SLCC** – Single Largest Completed Contract.

**UN** – United Nations.

# SECTION I

# INVITATION TO BID

BAGONG PILIPINAS

PHILIPPINE PORTS AUTHORITY

# INVITATION TO BID

## FOR THE

## PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/ MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON

The Philippine Ports Authority, through the Corporate Budget of the Authority for CY 2024, intends to apply the sum of **P243,407,923.15** being the Approved Budget for the Contract (ABC) to payments under the contract for **PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON (DSD-CAPEX-004).** Bids received in excess of the ABC shall be automatically rejected at bid opening.

The Philippine Ports Authority now invites bids for the above Procurement Project. Completion of the Works is required in **Three Hundred Twenty-Three (323) calendar days** from the receipt by the successful bidder of the Notice to Proceed. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).

Bidding will be conducted through open competitive bidding procedures using a non-discretionary "pass/fail" criterion as specified in the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184.

Interested bidders may obtain further information from the Philippine Ports Authority Bids and Awards Committee (BAC) and inspect the Bidding Documents at the address given below from 8:00 a.m. to 5:00 p.m., Monday to Friday.

A complete set of Bidding Documents may be acquired by interested Bidders on **22 October 2024** from the given address and website(s) below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **FIFTY THOUSAND PESOS (P50,000.00).** The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person.

The Philippine Ports Authority's Bids and Awards Committee will hold a Pre-Bid Conference on **05 November 2024 at 10:00 a.m.** at the PPA Function Room, 7th Floor, PPA Bldg., Bonifacio Drive, South Harbor, Port Area, Manila, which shall be open to all prospective bidders.

Bids must be duly received by the BAC Secretariat through manual submission at the office address indicated below on or before **19 November 2024 at 8:00 a.m.** Late bids shall not be accepted.

All bids must be accompanied by a bid security in any of the acceptable forms and in amount stated in ITB Clause 16.

Bid opening shall be on **19 November 2024 at 9:00 a.m.** at the 7th Floor, PPA Building, A. Bonifacio Drive, South Harbor, Port Area, Manila. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

The Philippine Ports Authority reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

- Required PCAB Registration: **MEDIUM B – Port, Harbor and Offshore Engineering**

For further information, please refer to:

BAC Secretariat, Philippine Ports Authority
5th Floor, PPA Bldg., A. Bonifacio Drive,
South Harbor, Port Area, Manila
Telephone Nos. 8527-47-35
8527-83-56 to 83 loc. 539
PPA Website: www.ppa.com.ph
PhilGEPS Website: www.philgeps.gov.ph

**MARK JON S. PALOMAR**
Chairperson, PPA Head Office Bids and Awards
Committee for Engineering Projects (HO-BAC-EP)

# SECTION II

# INSTRUCTIONS TO BIDDERS

## 1. Scope of Bid

The Procuring Entity, ***PHILIPPINE PORTS AUTHORITY*** invites Bids for the **PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**, with Project Identification Number **DSD-ATON-003-24.**

The **PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON** is for the construction of Works, as described in Section VI (Specifications).

## 2. Funding Information

2.1. The **PHILIPPINE PORTS AUTHORITY** through the source of funding as indicated below for **CY 2024** in the amount of **₱243,407,923.15.**

2.2. The source of funding is:
**CORPORATE OPERATING BUDGET.**

## 3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manual and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or invitation to bid by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

## 4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the

contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

## 5. Eligible Bidders

5.1 Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

5.2 The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.

5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.

5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

## 6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

## 7. Subcontracts

7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than fifty percent (50%) of the Project.

The Procuring Entity has prescribed that:

**SUBCONTRACTING IS NOT ALLOWED.**

7.2. Subcontracting of any portion of the Project does not relieve the Contractor of any liability or obligation under the Contract. The Supplier will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants, or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants, or workmen.

## 8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address and/or through videoconferencing/webcasting as indicated in paragraph 6 of the **IB.**

## 9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

## 10. Documents Comprising the Bid: Eligibility and Technical Components

10.1 The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents.**

10.2 If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

10.3 A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.

10.4 A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.

10.5 A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

## 11. Documents Comprising the Bid: Financial Component

11.1. The second bid envelope shall contain the financial documents for the Bid as specified in Section **IX. Checklist of Technical and Financial Documents**.

11.2. Any bid exceeding the ABC indicated in paragraph 1 of the IB shall not be accepted.

11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

## 12. Alternative Bids

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the BDS, alternative Bids shall not be accepted.

## 13. Bid Prices

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

## 14. Bid and Payment Currencies

14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

14.2. *Payment of the contract price shall be made in:*
**Philippine Pesos.**

## 15. Bid Security

15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the BDS, which shall be not less than the percentage of the ABC in accordance with the schedule in the BDS.

15.2. The Bid and bid security shall be valid until **One Hundred Twenty (120) days from the date set for Bid Opening**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

## 16. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

## 17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB**.

## 18. Opening and Preliminary Examination of Bids

18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

## 19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "passed" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.

19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring

Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.

19.3 In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

## 20. Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

## 21. Signing of the Contract

The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

# SECTION III

# BID DATA SHEET

# Bid Data Sheet

<table>
<tr><td>ITB Clause</td><td colspan="3"></td></tr>
<tr><td>5.2</td><td colspan="3">For this purpose, contracts similar to the Project refer to contracts which have the same Major Categories of Works which shall be:
<table>
<tr><th>Description/Clarification</th><th>Unit of Measure</th><th>Quantity (at least)</th></tr>
<tr><td>1. Repair/ Rehabilitation and installation of Aids to Marine Navigation and Mooring Systems;<br><br>2. Supply, Construct and Delivery at staging area of Solar-Powered Lighted Buoy Assembly;</td><td>set<br><br>set</td><td>89<br><br>9</td></tr>
</table></td></tr>
<tr><td>7.1</td><td>Portion of Works allowed to be subcontracted:<br><br>Subcontracting is not allowed</td><td colspan="2">Maximum Percentage allowed to be subcontracted:<br><br>Subcontracting is not allowed</td></tr>
<tr><td>10.3</td><td colspan="3">For Joint Venture:<br><br>Special PCAB License</td></tr>
<tr><td>10.4</td><td colspan="3">The key personnel must meet the required minimum years of experience set below:
<table>
<tr><th>Key Personnel</th><th>General Experience</th><th>Relevant Experience (Minimum)</th></tr>
<tr><td>Work experience is similar in nature and complexity to the project to be bid<br><br>a) Project Manager<br>b) Project Engineer<br>c) Construction Safety and Health Officer<br>d) Foreman</td><td>Ports, Harbors, & Offshore Engineering Works</td><td>Work experience is similar in nature and complexity to the project to be bid<br><br>Five (5) years<br>Three (3) years<br>One (1) year<br>Five (5) years</td></tr>
</table></td></tr>
</table>

10.5 *The minimum major equipment requirements are the following:*

| *Equipment* | *Capacity* | *Number of Units* |
|---|---|---|
| I. CRANE BARGE, Non-propelled | 319 GWT with 60T mechanically operated crane | 1-Owned |
| Tugboat | 500hp | 1-Owned or Leased |
| | **OR** | |
| CRANE BARGE, Self-propelled | 319 GWT with 60T mechanically operated crane | 1-Owned |
| II. CONCRETE MIXER | One-Bagger | 1-Owned |
| III. CONCRETE VIBRATOR | 3.5hp | 1-Owned or Leased |
| IV. BAR BENDER, | 25mm Diameter (min.) | 1-Owned |
| V. BAR CUTTER, | 25mm Diameter (min.) | 1-Owned |
| VI. WATER TRUCK, | 1000 Gallons | 1-Owned or Leased |
| VII. WELDING MACHINE, | 400 Amp | 1-Owned or Leased |

| | |
|---|---|
| 12 | *Value Engineering Clause:*<br><br>**Not Allowed** |
| 15.1 | The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:<br><br>1. The amount of not less than **₱4,868,158.46** *[2% of ABC]*, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit;<br><br>2. The amount of not less than **₱12,170,396.16** *[5% of ABC]* if bid security is in Surety Bond. |
| 6 | Each bidder shall submit one (1) original and six (6) copies of the Technical and Financial Proposals, properly labelled, book-bound, with hard cover and corresponding index tab. |
| 19.2 | Partial bids:<br><br>**Not Allowed** |
| 20 | *Other appropriate licenses and permits required:*<br><br>**None** |
| 21 | *Additional contract documents relevant to the project that may be required by existing laws and/or the Procuring Entity, such as:*<br><br>*Construction Schedule and S-Curve, Manpower Schedule, Construction Methods, Equipment Utilization Schedule, Construction Safety and Health Program approved by the Department of Labor and Employment and PERT/CPM or other acceptable tools of project scheduling.* |

# SECTION IV

# GENERAL CONDITIONS OF CONTRACT

## 1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

## 2. Sectional Completion of Works

If sectional completion is specified in the **Special Conditions of Contract (SCC)**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date shall apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

## 3. Possession of Site

3.1. The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the **SCC**, which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.

3.2. If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

## 4. The Contractor's Obligations

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 and specified in the **BDS**, to carry out the supervision of the Works.

The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.

**5. Performance Security**

5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.

5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

**6. Site Investigation Reports**

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **SCC** supplemented by any information obtained by the Contractor.

**7. Warranty**

7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.

7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the **SCC**.

**8. Liability of the Contractor**

Subject to additional provisions, if any, set forth in the **SCC**, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

**9. Termination for Other Causes**

Contract termination shall be initiated in case it is determined prima facie by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

## 10. Dayworks

Subject to the guidelines on Variation Order in Annex "E" of the 2016 revised IRR of RA No. 9184, and if applicable as indicated in the SCC, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Procuring Entity's Representative has given written instructions in advance for additional work to be paid for in that way.

## 11. Program of Work

11.1. The Contractor shall submit to the Procuring Entity's Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC.**

11.2. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC.** If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

## 12. Instructions, Inspections and Audits

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

## 13. Advance Payment

The Procuring Entity shall, upon a written request of the Contractor which shall be submitted as a Contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum, or at the most two installments according to a schedule specified in the **SCC**, subject to the requirements in Annex "E" of the 2016 revised IRR of RA No. 9184.

## 14. Progress Payments

The Contractor may submit a request for payment for Work accomplished. Such requests for payment shall be verified and certified by the Procuring Entity's Representative/Project Engineer. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.

## 15. Operating and Maintenance Manuals

15.1. If required, the Contractor will provide "as built" Drawings and/or operating and maintenance manuals as specified in the **SCC.**

15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

# SECTION V

# SPECIAL CONDITIONS OF CONTRACT

# Special Conditions of Contract

| GCC Clause | |
|---|---|
| 2 | *Sectional Completion:*<br><br>The intended completion date is Three Hundred Twenty-Three (323) CALENDAR DAYS upon receipt of Notice to Proceed (NTP) |
| 3.1 | The Procuring Entity shall give possession of all parts of the Site to the Contractor upon commencement of the project. |
| 6 | *Site Investigation Report:*<br><br>**None** |
| 7.2 | *Permanent structures: Fifteen (15) years*<br><br>Buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures |
| 10 | No day works are applicable to the contract. |
| 11.1 | The Contractor shall submit the Program of Work to the Procuring Entity's Representative within ____ days of delivery of the Notice of Award. |

| | |
|---|---|
| 11.2 | The amount to be withheld for late submission of an updated Program of Work is _____. |
| 13 | The provision on advance payments or mobilization fees in the terms and conditions of all contracts/ purchase orders/ job orders for goods, services and infrastructure projects that will be signed or executed shall henceforth be excluded. |
| 14 | No further instructions. |
| 15.1 | The date by which operating and maintenance manuals are required is _____.<br><br>The date by which "as built" drawings are required is _____. |
| 15.2 | The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is _____. |

# SECTION VI

# TECHNICAL SPECIFICATIONS

PROJECT NAME: **PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**

## 6.01 *SCOPE OF WORK*

- General Provisions
  - To undertake the following works
    1. *Mobilization/Demobilization and Cleaning/Clearing*
    2. *Provide environmental safety and health program in the execution of the project*
    3. *Provide the Upkeep and Maintenance of Temporary Facility and Service Vehicle (rental)*
    4. *Retrieval at site of marine buoys and mooring systems*
    5. *Repair/ rehabilitation and installation of aids to marine navigation and mooring systems*
    6. *Supply, construct and delivery at staging area of solar-powered lighted buoy assembly*
    7. *Offshore commissioning, testing and observation of aids to marine navigation*
  - The work includes the furnishing of all labor, materials, plants, and equipment required to complete/finish the works in accordance with the Specifications.
- Work Schedules
  - After examinations of all relevant data, coordination needs, work constraints, equipment to be used and other matters, a PERT/CPM diagram showing the detailed schedule/duration and sequences for the execution of work shall be submitted to the Engineer for approval within 15 days before the proposed commencement of the Works.

## 6.02 *EQUIPMENT/LAYOUT OF WORK*

- Plant
  - The Contractor shall keep on the job sufficient equipment and/or plant to meet the requirement of the project.
  - The equipment/plant shall be in satisfactorily operating conditions and capable of efficiently performing the works with safety as set forth herein and shall be subject to inspection by the Authority's Representative at all times.
- Physical Data/Layout of Work
  - ***The Authority does not guarantee to keep the project site free from obstructions.***
  - The Contractor shall conduct the work in such a manner as not to disrupt the flow of seacraft plying the navigational channel at all times.
  - The Contractor shall furnish, at his own expense, all platforms, equipment, range markers, temporary buoys, etc., and labor as may be required in laying out any part of the work.
  - The Contractor shall be responsible for the installation, maintenance, and preservation of all gauges, ranges, platforms and temporary buoys. Upon completion of the work, the Contractor shall promptly remove all ranges, markers, buoys and other marker places by him that may be detrimental to smooth passage of seacraft passing the channel.

## 6.03 *CONCEPT OF THE SUPPLY, DELIVERY, AND INSTALLATION OF WORKS*

- The PHILIPPINE PORTS AUTHORITY (PPA), hereinafter referred to as the employer wishes to receive bids for the **Repair/ Rehabilitation and Re-installation of One Hundred Seventy- Seven (177) existing sets and Supply/ Installation of Seventeen (17) new sets as replacement** herein referred to as the works.
- The Invitation to Bid is open to contractors who are qualified and authorized under the Philippine Laws to undertake the works. However, only one (1) of the firms with interlocking directors or officers or interest shall be allowed to submit a bid. Failure to detect prior to bidding, any of these types of relationships do not constitute as a waiver by the Employer.
- Bid proposals are to be completed and to be submitted to the Employer in accordance with the Instructions to Bidders.
- The bidder/s shall bear all costs associated with the preparation and delivery of its bid and the Employer will in no case be responsible or liable whatsoever to those costs, regardless of the conduct or outcome of the bidding process.

## 6.04 *CRITERIA IN THE SELECTION OF THE CONTRACTOR*

- The contractor should be duly registered to operate a business/services with the LGU with valid and existing license Ports and Harbors and Offshore Engineering;
- The contractor should have undertaken similar in nature and complexity with at least 50% of the ABC for any major operations of Ports and Harbors or Offshore Engineering works as indicated in the Eligibility Statements;
- The contractor should have a **PCAB LICENSE OF MEDIUM B** – Port, Harbor and Offshore Engineering;
- The contractor should satisfy the minimum equipment requirement;
- The contractor should have no pending case with the Government;
- The contractor should be the lowest calculated and responsive bidder to undertake the required works;
- Among others required by BAC.

## 6.05 *WORKS*

- Description

This item shall consist of repair/rehabilitation, re-installation and replacement of defective parts of navigational buoys at the designated offshore site around **THE PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON.**

- Progress of Work
  - Upon mobilizing sufficient labors, materials, plants, and equipment, the Contractor shall work at such hours as may be necessary, subject to existing laws, to ensure the prosecution of work in accordance with the approved schedule (PERT/CPM). If the Contractor falls behind the approved schedule, the Authority's Representative may require the Contractor to increase the number of shifts and/or equipment without extra cost to the Authority.

- Failure of the Contractor to comply with the requirements shall be reasonable grounds to assume that the Contractor is not performing the work with such diligence as will ensure completion within the specified time, in which case, the Authority may be compelled to take steps to protect the interest of the PPA.

- When the Contractor elects to work overtime and on Sundays and legal holidays, appropriate authority from those concerns must be secured and a notice of his intention to do so shall be submitted to the Authority's Representative within a reasonable time in advance thereof.

- The Contractor shall submit monthly reports within two (2) days after the end of the day covered by the report duly signed by the Contractor or his duly authorized representative and the authorized PPA representative. The report shall be made in forms and to be provided by the Authority.
- The Contractor shall take necessary measures to protect the life and health of his men in accordance with the existing laws and regulations of the Government. The Contractor shall provide safety devices to the Authority's personnel while on land or on board the equipment/plant in the performance of their official duties.
- The Contractor shall put up and maintain such markers and buoys as will prevent any accident in consequence of his work. No liability whatsoever attaches to the Authority if as a result of the installation, an accident happens in the project area. The Contractor shall hold the Authority free and harmless against any or all claims of persons involved in such accidents.

## 6.06 *WORK DURATION*

- The repair/rehabilitation, re-installation and replacement of defective parts of navigational buoys shall be completed within ***THREE HUNDRED TWENTY-THREE (323) CALENDAR DAYS*** **(INCLUSIVE OF SUNDAYS AND HOLIDAYS).**

## 6.07 *INSPECTION*

- No PPA Project Engineer or Authority's Representative is authorized to change any provisions of the specifications without the written authorization of the Authority.

Nor shall the presence or absence of a PPA Project Engineer or Authority's Representative relieve the Contractor from any of his responsibility under the Contract.

## 6.08 *FACILITIES/ACCOMMODATION TO BE PROVIDED*

- The Contractor shall provide the use of a vehicle with driver, boats, boatmen, laborers, equipment, appliances and materials forming part of the ordinary and usual equipment/plant and workforce as may be necessary for inspecting and supervising the repair/rehabilitation, re-installation and replacement of defective parts of navigational buoys.
- The Contractor shall provide a temporary site facility for office and worksite purposes of the Contractor's Personnel and Authority's Representatives. The room shall be fully equipped and maintained to the satisfaction of the Authority. It shall be properly lighted and ventilated.

## 6.09 *MODE OF PAYMENT*

- The total amount to be paid for under this contract will be measured by the actual work accomplished after the work specified is completed or immediately after the cut-off date to be set if the Contractor opted for interim payments.

- Payments for repair/rehabilitation, re-installation and replacement of defective parts of navigational buoys will be made not often than once a month. Payments shall be made upon the estimates of work satisfactorily completed by the Contractor and accepted by the Authority during the preceding period.
- Upon such estimate, the Authority shall pay the Contractor a sum equal to ninety percent (90%) thereof up to and until such time as the total supply, delivery and installation works shall have been completed.
- The bid unit rate for the above works applies to any additional materials or works needed to complete the works.

**RECAPITULATION:**

| LOCATION | TYPE OF BUOY | NO. OF BUOY | SUB-TOTAL |
|---|---|---|---|
| PUERTO PRINCESA PORT | Lateral Port Hand Mark (LPHM) | 4 | 10 |
| | Lateral Starboard Hand Mark (LSHM) | 4 | |
| | West Cardinal Mark (WCM) | 2 | |
| CORON PORT | Lateral Port Hand Mark (LPHM) | 4 | 10 |
| | Lateral Starboard Hand Mark (LSHM) | 3 | |
| | North Cardinal Mark (NCM) | 1 | |
| | East Cardinal Mark (ECM) | 2 | |
| CORON PASSAGE | Lateral Port Hand Mark (LPHM) | 8 | 18 |
| | Lateral Starboard Hand Mark (LSHM) | 8 | |
| | South Cardinal Mark (SCM) | 1 | |
| | Isolated Danger Mark (IDM) | 1 | |
| CUYO PORT | Lateral Port Hand Mark (LPHM) | 4 | 12 |
| | Lateral Starboard Hand Mark (LSHM) | 4 | |
| | North Cardinal Mark (NCM) | 1 | |
| | West Cardinal Mark (WCM) | 3 | |
| SAN JOSE PORT | Lateral Port Hand Mark (LPHM) | 4 | 13 |
| | Lateral Starboard Hand Mark (LSHM) | 4 | |
| | South Cardinal Mark (SCM) | 5 | |
| MANSALAY PORT | Lateral Port Hand Mark (LPHM) | 3 | 6 |
| | Lateral Starboard Hand Mark (LSHM) | 3 | |
| CALAPAN PORT | Lateral Port Hand Mark (LPHM) | 2 | 4 |
| | Lateral Starboard Hand Mark (LSHM) | 2 | |
| PUERTO GALERA PORT | Lateral Port Hand Mark (LPHM) | 2 | 14 |
| | Lateral Starboard Hand Mark (LSHM) | 2 | |
| | North Cardinal Mark (NCM) | 6 | |
| | West Cardinal Mark (WCM) | 4 | |
| ROXAS PORT | Lateral Port Hand Mark (LPHM) | 1 | 1 |
| VIRAC PORT | Lateral Port Hand Mark (LPHM) | 4 | 8 |
| | Lateral Starboard Hand Mark (LSHM) | 4 | |
| BULAN PORT | Lateral Port Hand Mark (LPHM) | 2 | 4 |
| | Lateral Starboard Hand Mark (LSHM) | 2 | |
| PASACAO PORT | Lateral Port Hand Mark (LPHM) | 3 | 6 |
| | Lateral Starboard Hand Mark (LSHM) | 3 | |
| LEGAZPI CITY PORT | Lateral Port Hand Mark (LPHM) | 3 | 6 |
| | Lateral Starboard Hand Mark (LSHM) | 3 | |
| TABACO CITY PORT | Lateral Port Hand Mark (LPHM) | 4 | 12 |
| | Lateral Starboard Hand Mark (LSHM) | 4 | |
| | East Cardinal Mark (ECM) | 4 | |
| MATNOG PORT | Lateral Port Hand Mark (LPHM) | 5 | 11 |
| | Lateral Starboard Hand Mark (LSHM) | 5 | |
| | West Cardinal Mark (WCM) | 1 | |
| PIO DURAN PORT | Lateral Port Hand Mark (LPHM) | 3 | 6 |
| | Lateral Starboard Hand Mark (LSHM) | 3 | |
| SAN ANDRES PORT | Lateral Port Hand Mark (LPHM) | 2 | 5 |
| | Lateral Starboard Hand Mark (LSHM) | 2 | |
| | South Cardinal Mark (SCM) | 1 | |
| ODIONGAN PORT | Lateral Port Hand Mark (LPHM) | 3 | 8 |
| | Lateral Starboard Hand Mark (LSHM) | 3 | |
| | North Cardinal Mark (NCM) | 2 | |
| SAN AGUSTIN PORT | Lateral Port Hand Mark (LPHM) | 3 | 6 |
| | Lateral Starboard Hand Mark (LSHM) | 3 | |
| ROMBLON PORT | Lateral Port Hand Mark (LPHM) | 2 | 10 |
| | Lateral Starboard Hand Mark (LSHM) | 2 | |
| | North Cardinal Mark (NCM) | 3 | |
| | South Cardinal Mark (SCM) | 2 | |
| | West Cardinal Mark (WCM) | 1 | |
| SALOMAGUE PORT | Lateral Port Hand Mark (LPHM) | 6 | 12 |
| | Lateral Starboard Hand Mark (LSHM) | 6 | |
| CURRIMAO PORT | Lateral Port Hand Mark (LPHM) | 6 | 12 |
| | Lateral Starboard Hand Mark (LSHM) | 6 | |
| | | TOTAL | 194 |

PROJECT NAME: **PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**

## AIDS TO MARINE NAVIGATION SPECIFICATION AND PROPOSED LOCATION
## PMO- PALAWAN

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| PUERTO PRINCESA PORT | | | | | | | | |
| 1 | P-LPM BUOY 1 | 9°42'8.59" N<br>118°46'6.76" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481083 |
| 2 | P-LSM BUOY 2 | 9°42'36.17" N<br>118°46'14.06" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481084 |
| 3 | P-LPM BUOY 3 | 9°42'38" N<br>118°44'54" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481085 |
| 4 | P-LSM BUOY 4 | 9°42'55.44" N<br>118°45'20.59" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481086 |
| 5 | P-LPM BUOY 5 | 9°42'48.46" N<br>118°44'27.32" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481087 |
| 6 | P-LSM BUOY 6 | 9°43'14.77" N<br>118°44'30.37" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481088 |
| 7 | P-LPM BUOY 7 | 9°43'7.58" N<br>118°43'41.63" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481089 |
| 8 | P-LSM BUOY 8 | 9°43'33.58" N<br>118°43'48.98" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481090 |
| 9 | P-WCM BUOY 9 | 9°43'52.16" N<br>118°43'36.34" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481091 |
| 10 | P-WCM BUOY 10 | 9°44'17.86" N<br>118°43'26.05" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481092 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| CORON PORT | | | | | | | | |
| 1 | C-NCM BUOY 1 | 11°57'17.58" N<br>120°11'31.38" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481093 |
| 2 | C-ECM BUOY 2 | 11°57'40.44" N<br>120°12'4.38" E | East Cardinal Mark | Black w/ Horizontal Yellow Band | 2 Black Cones Base to Base | 6 Nautical Miles | White; VQ (3) every (5) sec. or Q (3) every 10 sec. | 995481094 |
| 3 | C-ECM BUOY 3 | 11°58'25.92" N<br>120°13'0.24" E | East Cardinal Mark | Black w/ Horizontal Yellow Band | 2 Black Cones Base to Base | 6 Nautical Miles | White; VQ (3) every (5) sec. or Q (3) every 10 sec. | 995481095 |
| 4 | C-LPM BUOY 4 | 11°58'43.98" N<br>120°12'58.32" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481096 |
| 5 | C-LSM BUOY 5 | 11°58'55.26" N<br>120°13'17.46" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481097 |
| 6 | C-LPM BUOY 6 | 11°59'5.34" N<br>120°12'42.72" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481098 |
| 7 | C-LSM BUOY 7 | 11°59'7.68" N<br>120°13'1.6" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481099 |
| 8 | C-LPM BUOY 8 | 11°59'17.58" N<br>120°12'32.04" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481100 |
| 9 | C-LSM BUOY 9 | 11°59'17.52" N<br>120°12'51.5" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481101 |
| 10 | C-LPM BUOY 10 | 11°59'26.7" N<br>120°12'35.82" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481102 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| CORON PASSAGE | | | | | | | | |
| 1 | CP-LPM BUOY 1 | 11°57'16.54" N<br>120°18'27.06" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481337 |
| 2 | CP-LSM BUOY 2 | 11°57'47.53" N<br>120°18'59.42" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481338 |
| 3 | CP-LPM BUOY 3 | 11°57'34.75" N<br>120°17'57.01" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481339 |
| 4 | CP-LSM BUOY 4 | 11°58'3.95" N<br>120°18'28.19" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481340 |
| 5 | CP-LPM BUOY 5 | 11°58'23.11" N<br>120°16'27.06" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481341 |
| 6 | CP-LSM BUOY 6 | 11°58'48.68" N<br>120°16'58.54" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481342 |
| 7 | CP-LPM BUOY 7 | 11°58'55.26" N<br>120°15'25.83" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481343 |
| 8 | CP-LSM BUOY 8 | 11°59'20.92" N<br>120°15'55.61" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481344 |
| 9 | CP-LPM BUOY 9 | 11°59'18.49" N<br>120°14'43.85" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481345 |
| 10 | CP-LSM BUOY 10 | 11°59'36.28" N<br>120°14'33.34" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481346 |
| 11 | CP-LPM BUOY 11 | 11°58'54.04" N<br>120°14'11.08" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481347 |
| 12 | CP-LSM BUOY 12 | 11°58'55.93" N<br>120°13'55.07" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481348 |
| 13 | CP-LPM BUOY 13 | 11°58'29.81" N<br>120°13'50.54" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481349 |
| 14 | CP-LSM BUOY 14 | 11°58'46.6" N<br>120°13'32.87" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481350 |
| 15 | CP-LPM BUOY 15 | 11°57'28.31" N<br>120°10'32.8" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481351 |
| 16 | CP-LSM BUOY 16 | 11°56'59.04" N<br>120°10'59.75" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481352 |
| 17 | CP-IDM BUOY 17 | 11°59'10.9" N<br>120°15'33.3" E | Isolated Danger Mark | Black and Red | 2 Black Spheres, one above the other | 6 Nautical Miles | Group Flashing (2) 10 sec or Group Flashing (2) 5 sec | 995481353 |
| 18 | CP-SCM BUOY 18 | 11°59'21.53" N<br>120°14'7.62" E | South Cardinal Mark | Yellow above Black | 2 Black Cones One Above the Other Pointing Downward | 6 Nautical Miles | Quick (6) + long flash every (15) sec. or Q (6) + LF 15 sec. | 995481354 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| CUYO PORT | | | | | | | | |
| 1 | CU-LPM 1 | 10°49'29.18" N<br>120°59'17.11" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481355 |
| 2 | CU-LSM 2 | 10°49'31.76" N<br>120°59'27.64" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481356 |
| 3 | CU-LPM 3 | 10°49'45.89" N<br>120°59'11.08" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481357 |
| 4 | CU-LSM 4 | 10°49'48.73" N<br>120°59'20.74" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481358 |
| 5 | CU-LPM 5 | 10°51'8.9" N<br>120°59'50.21" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481359 |
| 6 | CU-LSM 6 | 10°50'58.55" N<br>120°59'52.36" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481360 |
| 7 | CU-LPM 7 | 10°51'8.61" N<br>121°0'5.52" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481361 |
| 8 | CU-LSM 8 | 10°51'0.14" N<br>121°0'7.91" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481362 |
| 9 | CU-WCM A | 10°50'4.88" N<br>120°59'18.61" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481363 |
| 10 | CU-WCM B | 10°50'21.53" N<br>120°59'22.26" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481364 |
| 11 | CU-WCM C | 10°50'38.18" N<br>120°59'26.35" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481365 |
| 12 | CU-NCM D | 10°50'49.72" N<br>120°59'38.18" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white ( CQ FL W) | 995481366 |

## AIDS TO MARINE NAVIGATION SPECIFICATION AND PROPOSED LOCATION
## PMO- MINDORO

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| SAN JOSE PORT | | | | | | | | |
| 1 | SJM-PHM 1 | 12°13'21.31" N<br>121°6'41.3" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481573 |
| 2 | SJM-SHM 2 | 12°13'34.46" N<br>121°7'8.29" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481574 |
| 3 | SJM-PHM 3 | 12°14'37.96" N<br>121°6'5.47" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481575 |
| 4 | SJM-SHM 4 | 12°14'45.35" N<br>121°6'24.45" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481576 |
| 5 | SJM-PHM 5 | 12°15'53.04" N<br>121°5'29.11" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481577 |
| 6 | SJM-SHM 6 | 12°15'58.5" N<br>121°5'44.31" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481578 |
| 7 | SJM-PHM 7 | 12°17'36.8" N<br>121°4'49.75" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481579 |
| 8 | SJM-SHM 8 | 12°17'46.13" N<br>121°5'22.09" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481580 |
| 9 | SJM-SCM A | 12°19'30.92" N<br>121°2'35.23" E | South Cardinal Mark | Yellow above Black | 2 Black Cones One Above the Other Pointing Downward | 6 Nautical Miles | Quick (6) + long flash every (15) sec. or Q (6) + LF 15 sec. | 995481581 |
| 10 | SJM-SCM B | 12°19'36.01" N<br>121°3'19.52" E | South Cardinal Mark | Yellow above Black | 2 Black Cones One Above the Other Pointing Downward | 6 Nautical Miles | Quick (6) + long flash every (15) sec. or Q (6) + LF 15 sec. | 995481582 |
| 11 | SJM-SCM C | 12°19'36.4" N<br>121°4'0.85" E | South Cardinal Mark | Yellow above Black | 2 Black Cones One Above the Other Pointing Downward | 6 Nautical Miles | Quick (6) + long flash every (15) sec. or Q (6) + LF 15 sec. | 995481583 |
| 12 | SJM-SCM D | 12°18'20.45" N<br>121°5'25.39" E | South Cardinal Mark | Yellow above Black | 2 Black Cones One Above the Other Pointing Downward | 6 Nautical Miles | Quick (6) + long flash every (15) sec. or Q (6) + LF 15 sec. | 995481584 |
| 13 | SJM-SCM E | 12°18'58.17" N<br>121°5'29.17" E | South Cardinal Mark | Yellow above Black | 2 Black Cones One Above the Other Pointing Downward | 6 Nautical Miles | Quick (6) + long flash every (15) sec. or Q (6) + LF 15 sec. | 995481585 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| **MANSALAY PORT** | | | | | | | | |
| 1 | M-LPM 1 | 12°30'21.31" N<br>121°27'41.3" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481561 |
| 2 | M-LSM 2 | 12°30'34.46" N<br>121°27'8.29" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481562 |
| 3 | M-LPM 3 | 12°30'41.55" N<br>121°27'1.55" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481563 |
| 4 | M-LSM 4 | 12°30'50.34" N<br>121°27'17.95" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481564 |
| 5 | M-LPM 5 | 12°31'2.6" N<br>121°26'53.91" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481565 |
| 6 | M-LSM 6 | 12°31'7.71" N<br>121°27'6.6" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481566 |
| **CALAPAN PORT** | | | | | | | | |
| 1 | CM-PHM 1 | 13°26'5.7" N<br>121°11'16.99" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481543 |
| 2 | CM-SHM 2 | 13°25'43.06" N<br>121°10'54.22" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481544 |
| 3 | CM-PHM 3 | 13°25'57.58" N<br>121°11'34.9" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481545 |
| 4 | CM-SHM 4 | 13°25'41.6" N<br>121°11'18" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481546 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| **PUERTO GALERA PORT** | | | | | | | | |
| 1 | PGM-LPM 1 | 13°30'48.38" N<br>120°56'13.36" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481547 |
| 2 | PGM-LSM 2 | 13°30'48.49" N<br>120°55'52.76" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481548 |
| 3 | PGM-LPM 3 | 13°30'29.08" N<br>120°56'11.95" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481549 |
| 4 | PGM-LSM 4 | 13°30'28.57" N<br>120°55'58.62" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481550 |
| 5 | PGM-NCM A | 13°32'14.5" N<br>120°56'57.03" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481551 |
| 6 | PGM-WCM B | 13°31'59.68" N<br>120°56'43.59" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481552 |
| 7 | PGM-WCM C | 13°31'44.32" N<br>120°56'31" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481553 |
| 8 | PGM-WCM D | 13°31'27.54" N<br>120°56'20.69" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481554 |
| 9 | PGM-WCM E | 13°31'8.51" N<br>120°56'15.95" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481555 |
| 10 | PGM-NCM F | 13°30'46.74" N<br>120°54'27.7" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481556 |
| 11 | PGM-NCM G | 13°30'49.02" N<br>120°54'46.51" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481557 |
| 12 | PGM-NCM H | 13°30'50.75" N<br>120°55'3.42" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481558 |
| 13 | PGM-NCM I | 13°30'52.87" N<br>120°55'20.18" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481559 |
| 14 | PGM-NCM J | 13°30'54.63" N<br>120°55'36.91" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481560 |
| **ROXAS PORT** | | | | | | | | |
| 1 | R-PHM 5 | 12°35'19.63" N<br>121°31'49.48" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481571 |

## AIDS TO MARINE NAVIGATION SPECIFICATION AND PROPOSED LOCATION
## PMO- BICOL

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| **VIRAC PORT** | | | | | | | | |
| 1 | VIR-LPHM 1 | 13°33'40.26" N<br>124°14'16.36" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581707 |
| 2 | VIR-LSHM 2 | 13°33'45.93" N<br>124°14'38.19" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581708 |
| 3 | VIR-LPHM 3 | 13°34'2.72" N<br>124°14'13" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581709 |
| 4 | VIR-LSHM 4 | 13°34'6.88" N<br>124°14'29.21" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581710 |
| 5 | VIR-LPHM 5 | 13°34'24.44" N<br>124°14'9.43" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581711 |
| 6 | VIR-LSHM 6 | 13°34'27.24" N<br>124°14'21.23" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581712 |
| 7 | VIR-LPHM 7 | 13°34'43.49" N<br>124°14'6.22" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581713 |
| 8 | VIR-LSHM 8 | 13°34'43.01" N<br>124°14'15.53" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581714 |
| **BULAN PORT** | | | | | | | | |
| 1 | BUL-LPHM 1 | 12°40'13.09" N<br>123°51'30.31" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481688 |
| 2 | BUL-LSHM 2 | 12°40'21.5" N<br>123°51'37.14" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481689 |
| 3 | BUL-LPHM 3 | 12°39'35.22" N<br>123°52'2.01" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481690 |
| 4 | BUL-LSHM 4 | 12°40'5.06" N<br>123°51'58.16" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481691 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| **PASACAO PORT** | | | | | | | | |
| 1 | PAS-LPHM 1 | 13°29'27.17" N<br>123°2'31.61" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481658 |
| 2 | PAS-LSHM 2 | 13°29'32.14" N<br>123°3'13.19" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481659 |
| 3 | PAS-LPHM 3 | 13°29'44.37" N<br>123°2'29.55" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481660 |
| 4 | PAS-LSHM 4 | 13°29'48.42" N<br>123°3'4.16" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481661 |
| 5 | PAS-LPHM 5 | 13°30'1.84" N<br>123°2'28.2" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481662 |
| 6 | PAS-LSHM 6 | 13°30'8.8" N<br>123°2'53.17" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481663 |
| **LEGAZPI CITY PORT** | | | | | | | | |
| 1 | LEG-LPHM 1 | 13°9'0.64" N<br>123°46'17.64" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581682 |
| 2 | LEG-LSHM 2 | 13°9'13.69" N<br>123°46'17.29" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581683 |
| 3 | LEG-LPHM 3 | 13°8'53.63" N<br>123°46'0.04" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581684 |
| 4 | LEG-LSHM 4 | 13°9'3.37" N<br>123°45'55.09" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581685 |
| 5 | LEG-LPHM 5 | 13°8'46.81" N<br>123°45'43.56" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581686 |
| 6 | LEG-LSHM 6 | 13°8'51.89" N<br>123°45'39.68" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581687 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| TABACO CITY PORT | | | | | | | | |
| 1 | TAB-LPHM 1 | 13°24'58.24" N<br>123°45'45.03" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. (Fl (2) G 5s) | 994581670 |
| 2 | TAB-LSHM 2 | 13°25'15.78" N<br>123°45'26.14" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. (Fl (2) R 5s) | 994581671 |
| 3 | TAB-LPHM 3 | 13°24'36.98" N<br>123°45'15.05" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. (Fl (2) G 5s) | 994581672 |
| 4 | TAB-LSHM 4 | 13°24'55.37" N<br>123°44'54.17" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. (Fl (2) R 5s) | 994581673 |
| 5 | TAB-LPHM 5 | 13°21'41.06" N<br>123°44'45.11" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. (Fl (2) G 5s) | 994581674 |
| 6 | TAB-LSHM 6 | 13°22'0.62" N<br>123°44'39.48" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. (Fl (2) R 5s) | 994581675 |
| 7 | TAB-LPHM 7 | 13°21'34.73" N<br>123°44'25.91" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. (Fl (2) G 5s) | 994581676 |
| 8 | TAB-LSHM 8 | 13°21'53.3" N<br>123°44'20.29" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. (Fl (2) R 5s) | 994581677 |
| 9 | TAB-ECM A | 13°24'15.88" N<br>123°45'0.19" E | East Cardinal Mark | Black w/ Horizontal Yellow Band | 2 Black Cones Base to Base | 6 Nautical Miles | White; VQ (3) every (5) sec. or Q (3) every 10 sec. | 994581678 |
| 10 | TAB-ECM B | 13°23'2.41" N<br>123°44'1.41" E | East Cardinal Mark | Black w/ Horizontal Yellow Band | 2 Black Cones Base to Base | 6 Nautical Miles | White; VQ (3) every (5) sec. or Q (3) every 10 sec. | 994581679 |
| 11 | TAB-ECM C | 13°22'42.13" N<br>123°44'19.48" E | East Cardinal Mark | Black w/ Horizontal Yellow Band | 2 Black Cones Base to Base | 6 Nautical Miles | White; VQ (3) every (5) sec. or Q (3) every 10 sec. | 994581680 |
| 12 | TAB-ECM D | 13°22'22.78" N<br>123°44'36.43" E | East Cardinal Mark | Black w/ Horizontal Yellow Band | 2 Black Cones Base to Base | 6 Nautical Miles | White; VQ (3) every (5) sec. or Q (3) every 10 sec. | 994581681 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| **MATNOG PORT** | | | | | | | | |
| 1 | MAT-LPHM 1 | 12°34'18.99" N<br>124°7'15.53" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481691 |
| 2 | MAT-LSHM 2 | 12°34'35.93" N<br>124°7'23.32" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481692 |
| 3 | MAT-LPHM 3 | 12°34'27.36" N<br>124°6'44.78" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481693 |
| 4 | MAT-LSHM 4 | 12°34'44.7" N<br>124°6'53.8" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481694 |
| 5 | MAT-LPHM 5 | 12°34'35.17" N<br>124°6'16.69" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481695 |
| 6 | MAT-LSHM 6 | 12°34'52.89" N<br>124°6'25.67" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481696 |
| 7 | MAT-LPHM 7 | 12°34'43.32" N<br>124°5'48.37" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481697 |
| 8 | MAT-LSHM 8 | 12°35'0.34" N<br>124°5'54.47" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481698 |
| 9 | MAT-LPHM 9 | 12°34'50.05" N<br>124°5'25.79" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481699 |
| 10 | MAT-LSHM 10 | 12°35'6.29" N<br>124°5'33.21" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481700 |
| 11 | MAT-WCM A | 12°34'12.45" N<br>124°7'57.35" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481701 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| **PIO DURAN PORT** | | | | | | | | |
| 1 | PIO-LPHM 1 | 13°1'9.65" N<br>123°25'45.44" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581664 |
| 2 | PIO-LSHM 2 | 13°0'44.28" N<br>123°26'50.57" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581665 |
| 3 | PIO-LPHM 3 | 13°1'22.66" N<br>123°26'48.29" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581666 |
| 4 | PIO-LSHM 4 | 13°1'6.07" N<br>123°26'48.29" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581667 |
| 5 | PIO-LPHM 5 | 13°1'35.5" N<br>123°26'23.45" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581668 |
| 6 | PIO-LSHM 6 | 13°1'28.54" N<br>123°26'46.17" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581669 |
| **SAN ANDRES PORT** | | | | | | | | |
| 1 | SA-LPHM 1 | 13°35'29.54" N<br>124°5'20.77" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581702 |
| 2 | SA-LSHM 2 | 13°35'22.92" N<br>124°5'32.28" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581703 |
| 3 | SA-LPHM 3 | 13°35'38.71" N<br>124°5'31.04" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 994581704 |
| 4 | SA-LSHM 4 | 13°35'34.43" N<br>124°5'40.79" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 994581705 |
| 5 | SA-SCM A | 13°35'21.46" N<br>124°5'9.86" E | South Cardinal Mark | Yellow above Black | 2 Black Cones One Above the Other Pointing Downward | 6 Nautical Miles | Quick (6) + long flash every (15) sec. or Q (6) + LF 15 sec. | 994581706 |

## AIDS TO MARINE NAVIGATION SPECIFICATION AND PROPOSED LOCATION
## PMO- BATANGAS

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| **ODIONGAN PORT** | | | | | | | | |
| 1 | O-PHM 1 | 12°25'41.46" N<br>121°58'34.8" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481377 |
| 2 | O-SHM 2 | 12°24'56.2" N<br>121°58'18.76" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481378 |
| 3 | O-PHM 3 | 12°25'23" N<br>121°58'53.45" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481379 |
| 4 | O-SHM 4 | 12°25'23" N<br>121°58'53.45" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481380 |
| 5 | O-PHM 5 | 12°25'7.38" N<br>121°59'8.11" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481381 |
| 6 | O-SHM 6 | 12°24'56" N<br>121°59'4.54" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481382 |
| 7 | O-NCM A | 12°24'54.71" N<br>121°57'31.24" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481383 |
| 8 | O-NCM B | 12°24'55.32" N<br>121°57'55.58" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481384 |
| **SAN AGUSTIN PORT** | | | | | | | | |
| 1 | SA-LPM 1 | 12°33'27.23" N<br>122°8'39.82" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 9954813404 |
| 2 | SA-LSM 2 | 12°33'46.51" N<br>122°8'43.66" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 9954813405 |
| 3 | SA-LPM 3 | 12°33'34.87" N<br>122°8'18.7" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 9954813406 |
| 4 | SA-LSM 4 | 12°33'43.12" N<br>122°8'27.92" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 9954813407 |
| 5 | SA-LPM 5 | 12°33'46.4" N<br>122°8'4.82" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 9954813408 |
| 6 | SA-LSM 6 | 12°33'49.7" N<br>122°8'13.58" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 9954813409 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| ROMBLON PORT | | | | | | | | |
| 1 | LPM-R- Buoy 1 | 12°35'3.48" N<br>122°15'48.75" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481367 |
| 2 | LSM-R- Buoy 2 | 12°34'53.64" N<br>122°15'45.74" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481368 |
| 3 | LPM-R- Buoy 3 | 12°34'58.99" N<br>122°16'1.08" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481369 |
| 4 | LSM-R- Buoy 4 | 12°34'51.94" N<br>122°15'58.17" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481370 |
| 5 | SCM-R A | 12°34'46.63" N<br>122°14'0.37" E | South Cardinal Mark | Yellow above Black | 2 Black Cones One Above the Other Pointing Downward | 6 Nautical Miles | Quick (6) + long flash every (15) sec. or Q (6) + LF 15 sec. | 995481371 |
| 6 | NCM-R B | 12°34'29.34" N<br>122°14'38" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481372 |
| 7 | SCM-R C | 12°34'56.84" N<br>122°14'55.71" E | South Cardinal Mark | Yellow above Black | 2 Black Cones One Above the Other Pointing Downward | 6 Nautical Miles | Quick (6) + long flash every (15) sec. or Q (6) + LF 15 sec. | 995481373 |
| 8 | NCM-R D | 12°34'49.9" N<br>122°15'21.91" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481374 |
| 9 | WCM-R E | 12°35'12.25" N<br>122°15'38.04" E | West Cardinal Mark | Yellow w/ Horizontal Black Band | 2 Black Cones Point to Point | 6 Nautical Miles | White; VQ (9) every (10) sec. or Q (9) every 15 sec. | 995481375 |
| 10 | NCM-R F | 12°34'52.39" N<br>122°16'6.71" E | North Cardinal Mark | Black above Yellow | 2 Black Cones One Above the Other Pointing Upward | 6 Nautical Miles | Continues quick flashing white (CQ FL W) | 995481376 |

## AIDS TO MARINE NAVIGATION SPECIFICATION AND PROPOSED LOCATION
## PMO- NORTHERN LUZON

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| SALOMAGUE PORT | | | | | | | | |
| 1 | LPM-Sal 1 | 17°46'24.85" N<br>120°23'23.55" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481225 |
| 2 | LSM-Sal 2 | 17°46'0.64" N<br>120°23'24.95" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481226 |
| 3 | LPM-Sal 3 | 17°46'24.8" N<br>120°23'41.35" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481227 |
| 4 | LSM-Sal 4 | 17°46'0.69" N<br>120°23'44.24" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481228 |
| 5 | LPM-Sal 5 | 17°46'23.71" N<br>120°24'0.36" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481229 |
| 6 | LSM-Sal 6 | 17°46'0.89" N<br>120°24'0.99" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481230 |
| 7 | LPM-Sal 7 | 17°46'23.54" N<br>120°24'17.76" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481231 |
| 8 | LSM-Sal 8 | 17°46'1.26" N<br>120°24'21.26" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481232 |
| 9 | LPM-Sal 9 | 17°46'23.94" N<br>120°24'32.43" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481233 |
| 10 | LSM-Sal 10 | 17°46'10.34" N<br>120°24'47.05" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481234 |
| 11 | LPM-Sal 11 | 17°46'34.4" N<br>120°24'39.51" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481235 |
| 12 | LSM-Sal 12 | 17°46'31.43" N<br>120°24'55.87" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481236 |

| NO | BUOY NAME | COORDINATES | TYPE OF BUOY | BUOY COLOR | TYPE OF MARK | LIGHT VISIBILITY | LIGHT CHARACTERISTICS | MMSI NUMBER |
|---|---|---|---|---|---|---|---|---|
| **CURRIMAO PORT** | | | | | | | | |
| 1 | LPM-Cur 1 | 18°0'4.48" N<br>120°28'3.43" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481237 |
| 2 | LSM-Cur 2 | 17°59'40.51" N<br>120°28'2.66" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481238 |
| 3 | LPM-Cur 3 | 18°0'4.35" N<br>120°28'24.03" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481239 |
| 4 | LSM-Cur 4 | 17°59'43.37" N<br>120°28'20.05" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481240 |
| 5 | LPM-Cur 5 | 18°0'5.33" N<br>120°28'44.77" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481241 |
| 6 | LSM-Cur 6 | 17°59'45.91" N<br>120°28'36.23" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481242 |
| 7 | LPM-Cur 7 | 18°0'0.39" N<br>120°29'4.4" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481243 |
| 8 | LSM-Cur 8 | 17°59'45.65" N<br>120°28'50.02" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481244 |
| 9 | LPM-Cur 9 | 17°59'50.99" N<br>120°29'19.29" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481245 |
| 10 | LSM-Cur 10 | 17°59'40.87" N<br>120°29'1.66" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481246 |
| 11 | LPM-Cur 11 | 17°59'32.21" N<br>120°29'23.43" E | Lateral Port Hand Mark | Green | Single Green Cylindrical Can | 6 Nautical Miles | Flashing two (2) Green every five (5) sec. {Fl (2) G 5s} | 995481247 |
| 12 | LSM-Cur 12 | 17°59'27.15" N<br>120°29'3.71" E | Lateral Starboard Hand Mark | Red | Single Red Cone Pointing Upward | 6 Nautical Miles | Flashing two (2) Red every five (5) sec. {Fl (2) R 5s} | 995481248 |

PROJECT NAME: **PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**

## Replacement of defective parts/components for Aids to Navigation

| | | |
|---|---|---|
| Solar Panel | : | 46 pcs. |
| 12 Volts Solar Battery | : | 144 pcs. |
| Topmark | : | 18 pcs. |
| UHF/AIS Antenna | : | 15 pcs. |

## Estimated Chain Length

(SUBJECT TO CHANGE – DEPTH IS BASED ON NAMRIA CHART)

ESTIMATED TOTAL LENGTH - 32mm Mooring Chain - 150.00 meters

25mm Mooring Chain - 19,450.00 meters

# ITEM 02 : PROJECT BILLBOARD

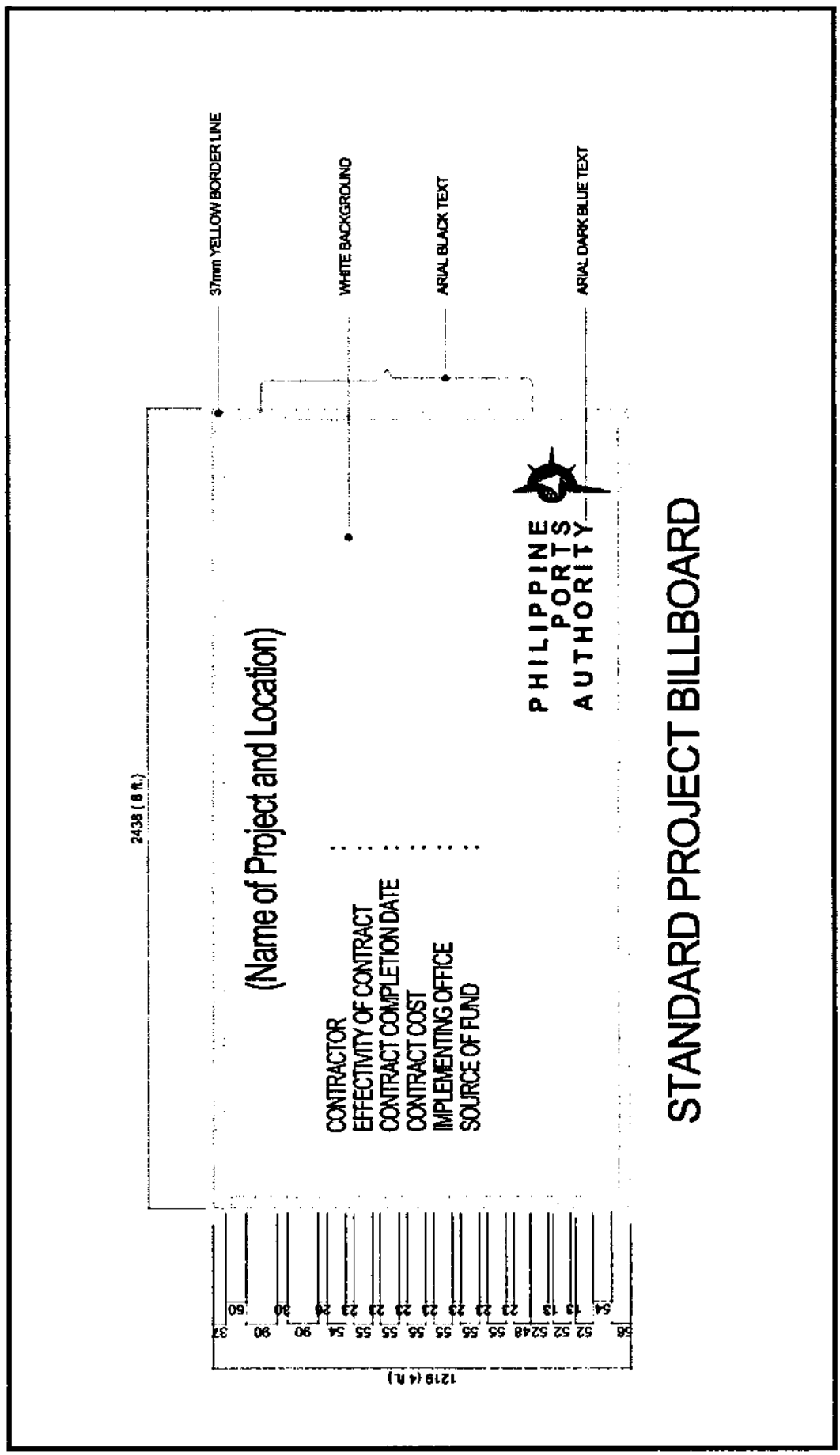
## SPECIFICATION

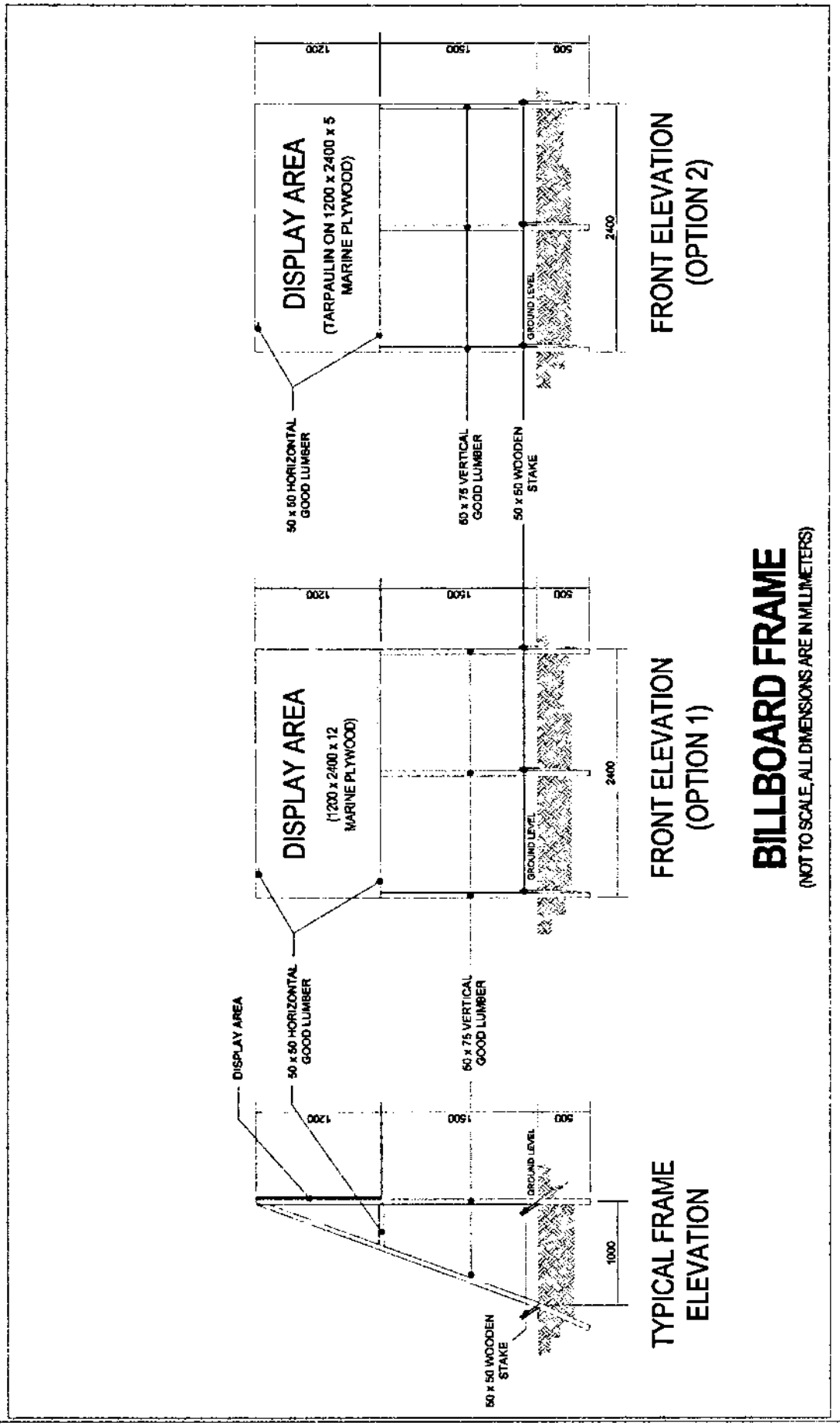
The Project Billboard shall be installed at location(s) designated by the Engineer.

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.


37mm YELLOW BORDER LINE
WHITE BACKGROUND
ARIAL BLACK TEXT
ARIAL DARK BLUE TEXT
PHILIPPINE PORTS AUTHORITY
STANDARD PROJECT BILLBOARD
(Name of Project and Location)
CONTRACTOR
EFFECTIVITY OF CONTRACT
CONTRACT COMPLETION DATE
CONTRACT COST
IMPLEMENTING OFFICE
SOURCE OF FUND
2438 ( 8 ft.)
1219 ( 4 ft.)


BILLBOARD FRAME
(NOT TO SCALE, ALL DIMENSIONS ARE IN MILLIMETERS)
FRONT ELEVATION
(OPTION 2)
DISPLAY AREA
(TARPAULIN ON 1200 x 2400 x 5
MARINE PLYWOOD)
50 x 50 HORIZONTAL
GOOD LUMBER
60 x 75 VERTICAL
GOOD LUMBER
50 x 50 WOODEN
STAKE
GROUND LEVEL
2400
1200
1500
500
FRONT ELEVATION
(OPTION 1)
DISPLAY AREA
(1200 x 2400 x 12
MARINE PLYWOOD)
50 x 50 HORIZONTAL
GOOD LUMBER
60 x 75 VERTICAL
GOOD LUMBER
GROUND LEVEL
2400
1200
1500
500
TYPICAL FRAME
ELEVATION
DISPLAY AREA
50 x 50 HORIZONTAL
GOOD LUMBER
60 x 75 VERTICAL
GOOD LUMBER
GROUND LEVEL
1000
1200
1500
500
50 x 50 WOODEN
STAKE


To all our contractors, suppliers and
service providers, all we ask is for you to
SPEED UP
your contracts and FINISH
AHEAD of schedule

## ITEM 03 : 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.

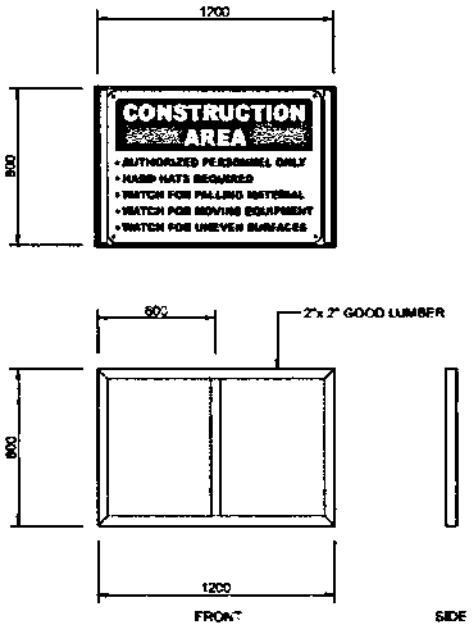
### SPECIFICATION

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

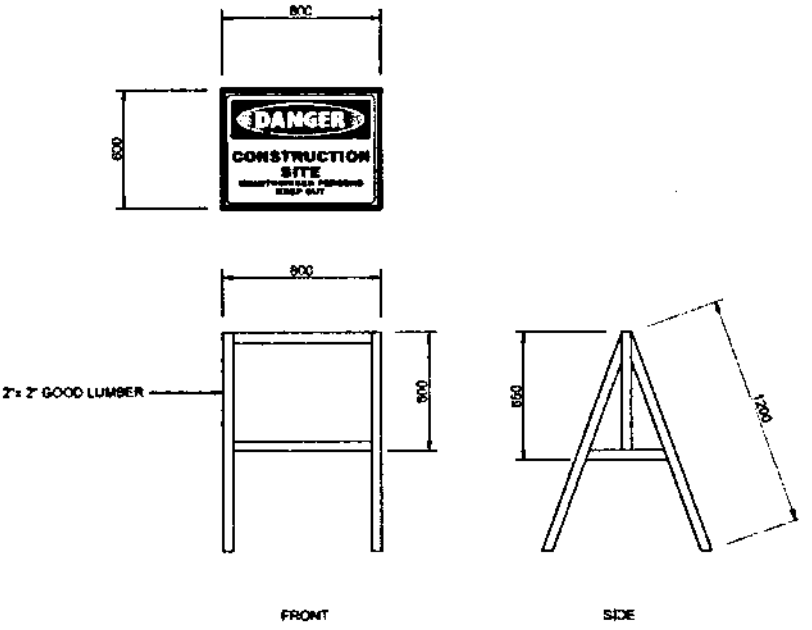
The sizes of the standard signages shall be 2-2/3ft x 4ft (800mm X 1,200mm) for fixed type and 2ft x 2–2/3ft (600mm x 800mm) for mobile type. For barricade standard 2ft x 2–2/3ft (600mm x 800mm) shall be provided.

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.




FRAMING FOR 0.80m x 1.20m SIGNAGES

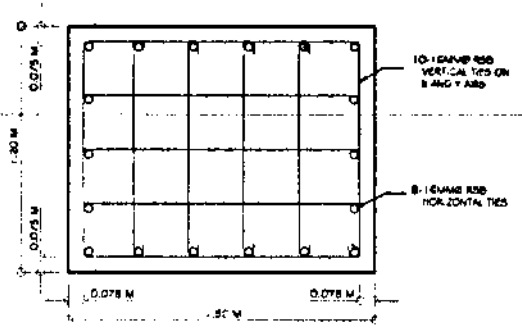



FRAMING FOR 0.80m x 0.80m SIGNAGES AND BARRICADES

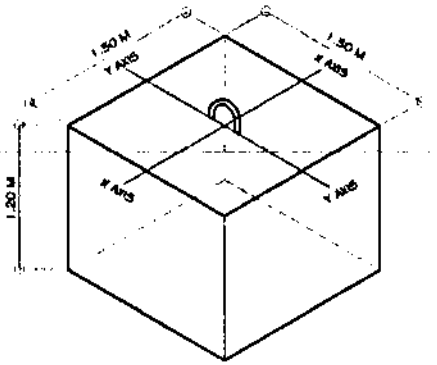
STANDARD PLAN FOR SIGNAGES AND BARRICADES

# SECTION VII

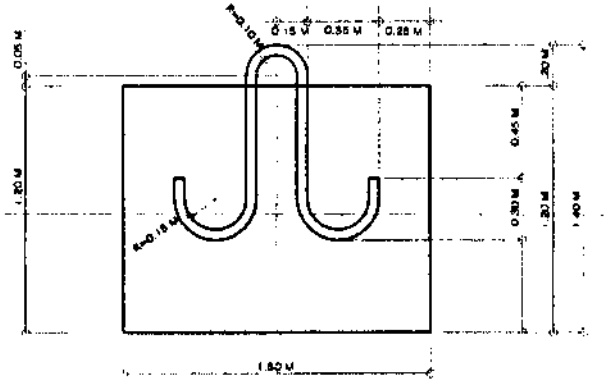
# DRAWINGS
# (APPROVED PLANS)



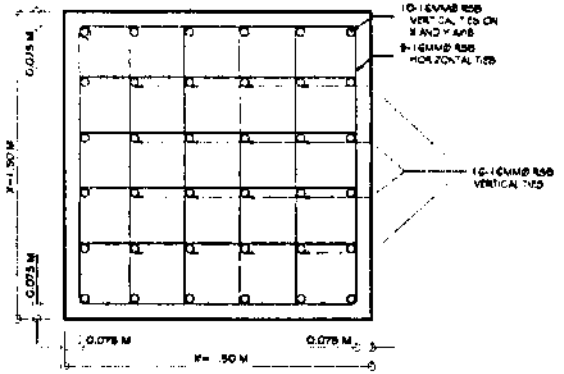

SECTION




ISOMETRIC



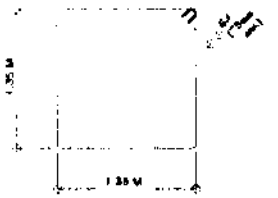

SECTION



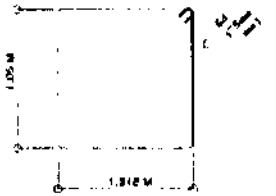

PLAN

1 DETAIL OF R.C. SINKER
SCALE 1:20 NTS

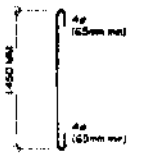
HORIZONTAL TIES (16MMØ)
(5 PCS.)



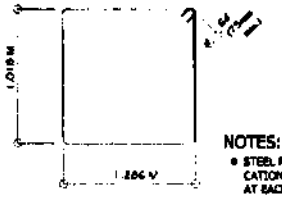

VERTICAL TIES (16MMØ)
ALONG X (6 PCS.)



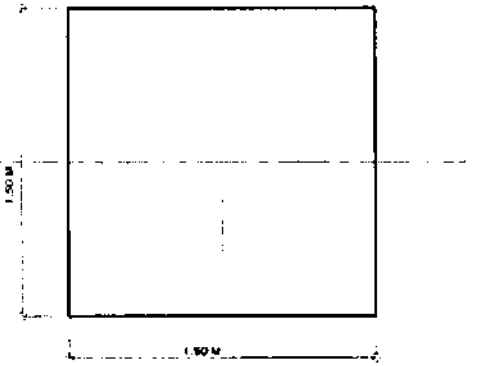

VERTICAL TIES (16MMØ)
@ CENTER (16 PCS.)




VERTICAL TIES (16MMØ)
ALONG Y (6 PCS.)




2 SCHEDULE OF REBARS
SCALE 1:40 NTS



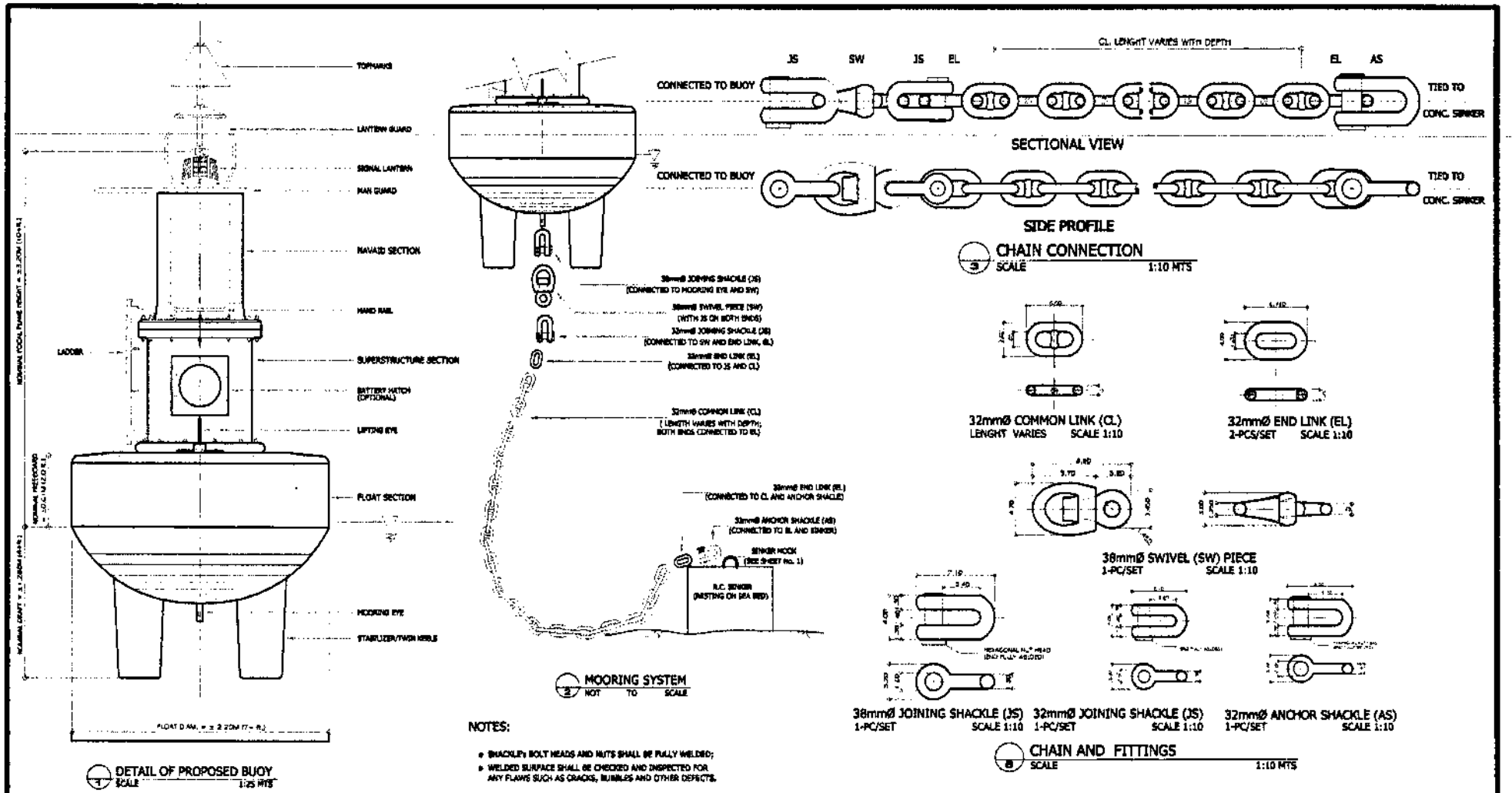

PLAN

3 DETAIL OF 50MM HOOK (BLACK IRON)
SCALE 1:20 NTS

NOTES:

- STEEL REINFORCING BARS TO BE USED FOR THIS PROJECT SHALL CONSIST OF STANDARD BARS MEETING ASTM SPECIFICATIONS. IT SHALL BE FORMED ACCURATELY ACCORDING TO THE SIZE OF THE SINKER AND SHALL BE TIED TOGETHER AT EACH BAR INTERSECTION WITH GAUGE No. 16 GI WIRE OR BY WELDING.
- NO STEEL REINFORCEMENT SHOULD BE INSTALLED UNLESS IT IS FREE FROM RUST OR OTHER COATING WHICH WOULD DESTROY OR REDUCE THE BOND WITH CONCRETE. THE REBARS MUST BE POSITIONED SUCH THAT THERE IS A 0.075M SPACE BETWEEN THE STEEL AT THE SIDES AND BOTTOM OF THE FORMS.
- 50 MM BLACK IRON HOOK SHALL BE TIED TOGETHER AT SINKER REINFORCING BARS WITH GAUGE No. 16 GI WIRE OR BY WELDING.
- CONCRETE MIX SHALL BE CLASS "A" OR 1:2:3 (CEMENT:SAND:GRAVEL)

| PROJECT TITLE / LOCATION | DESIGNED BY | SUBMITTED BY: | RECOMMENDING APPROVAL | APPROVED | SHEET CONTENTS | SHEET No. |
|---|---|---|---|---|---|---|
| PROPOSED REPAIR/ REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON | ROWELL C. SANCHEZ<br>Survey Aide, ANS | JAN D. CATCHUELA<br>Engineer III, DMD | ALEX O. CASANTUSAN<br>Manager, DMD | ELVISN. MEDALLA<br>Acting Manager, DSD | • DETAIL OF PROPOSED R.C. SINKER<br>• SCHEDULE OF REBARS<br>• ISOMETRIC DRAWING<br>• DETAIL OF 50mm HOOK/SHACKLE | SNL 1/3 |




DETAIL OF PROPOSED BUOY
SCALE 1:25 MTS

MOORING SYSTEM
NOT TO SCALE

CHAIN CONNECTION
SCALE 1:10 MTS

CHAIN AND FITTINGS
SCALE 1:10 MTS

NOTES:

- SHACKLE'S BOLT HEADS AND NUTS SHALL BE FULLY WELDED;
- WELDED SURFACE SHALL BE CHECKED AND INSPECTED FOR ANY FLAWS SUCH AS CRACKS, BUBBLES AND OTHER DEFECTS.

PROJECT TITLE / LOCATION:

PROPOSED REPAIR/ REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON

DRAWN BY: ROWEL C. SANCHEZ

SUBMITTED BY: JAN D. CATCHUELA

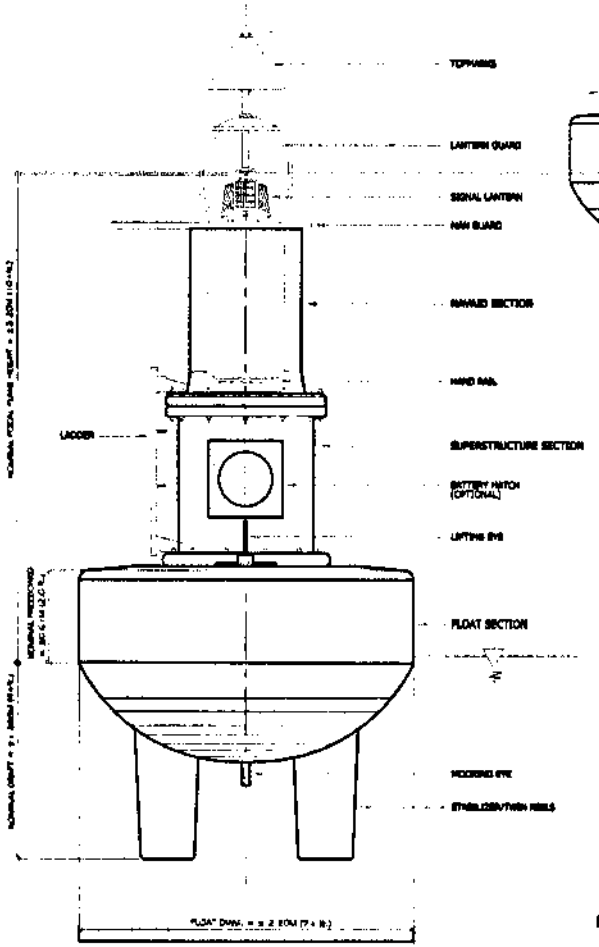
RECOMMENDING APPROVAL: ALEX D. CASANTUSAN

APPROVED: ELVIS R. MEDALLA

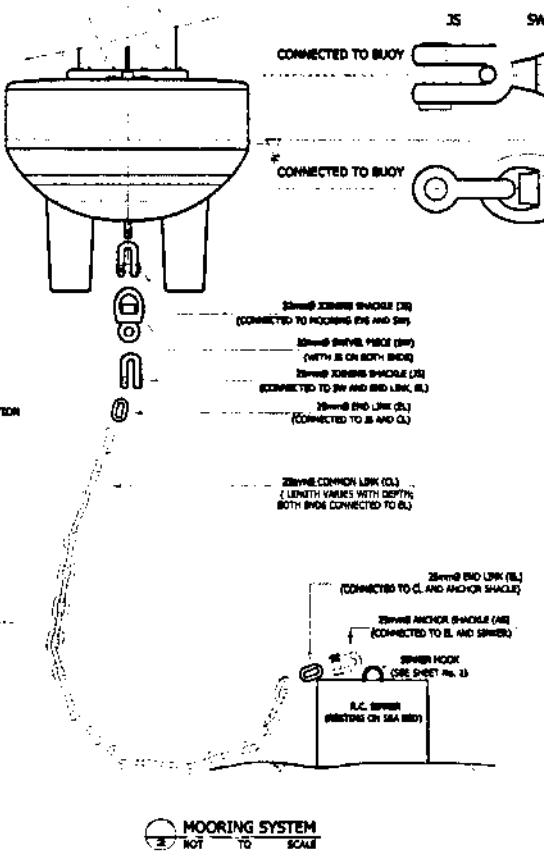
SHEET CONTENTS:

- DETAIL OF PROPOSED BUOY
- MOORING SYSTEM
- CHAIN CONNECTION
- CHAIN AND FITTINGS:
  - JOINING SHACKLES
  - SWIVEL PIECE
  - ANCHOR SHACKLE
  - COMMON AND END LINK

SHEET No.: SNL 2/3



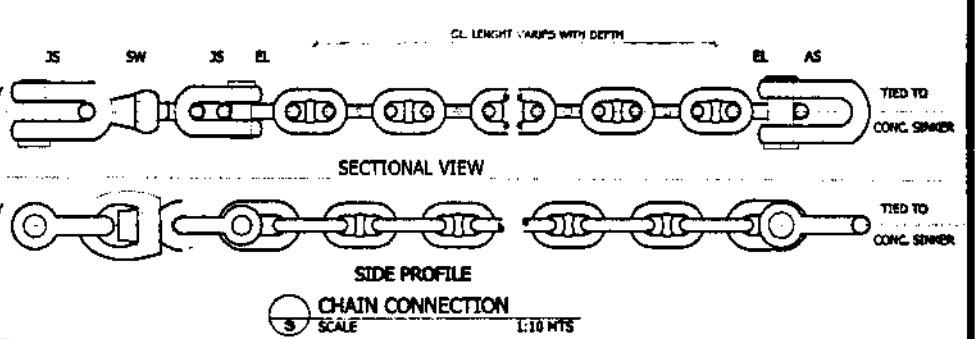

DETAIL OF PROPOSED BUOY
SCALE 1:25 NTS



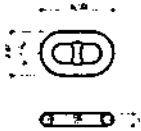

MOORING SYSTEM
NOT TO SCALE

NOTES:

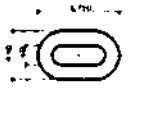
- SHACKLE'S BOLT HEADS AND NUTS SHALL BE FULLY WELDED;
- WELDED SURFACE SHALL BE CHECKED AND INSPECTED FOR ANY FLAWS SUCH AS CRACKS, BUBBLES AND OTHER DEFECTS.



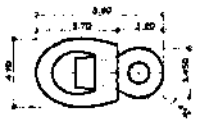

CHAIN CONNECTION
SCALE 1:10 NTS



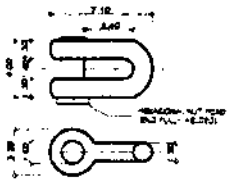
25mmØ COMMON LINK (CL)
LENGHT VARIES SCALE 1:10



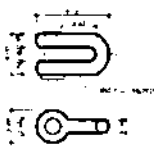
25mmØ END LINK (EL)
2-PCS/SET SCALE 1:10



32mmØ SWIVEL (SW) PIECE
1-PC/SET SCALE 1:10



32mmØ JOINING SHACKLE (JS)
1-PC/SET SCALE 1:10



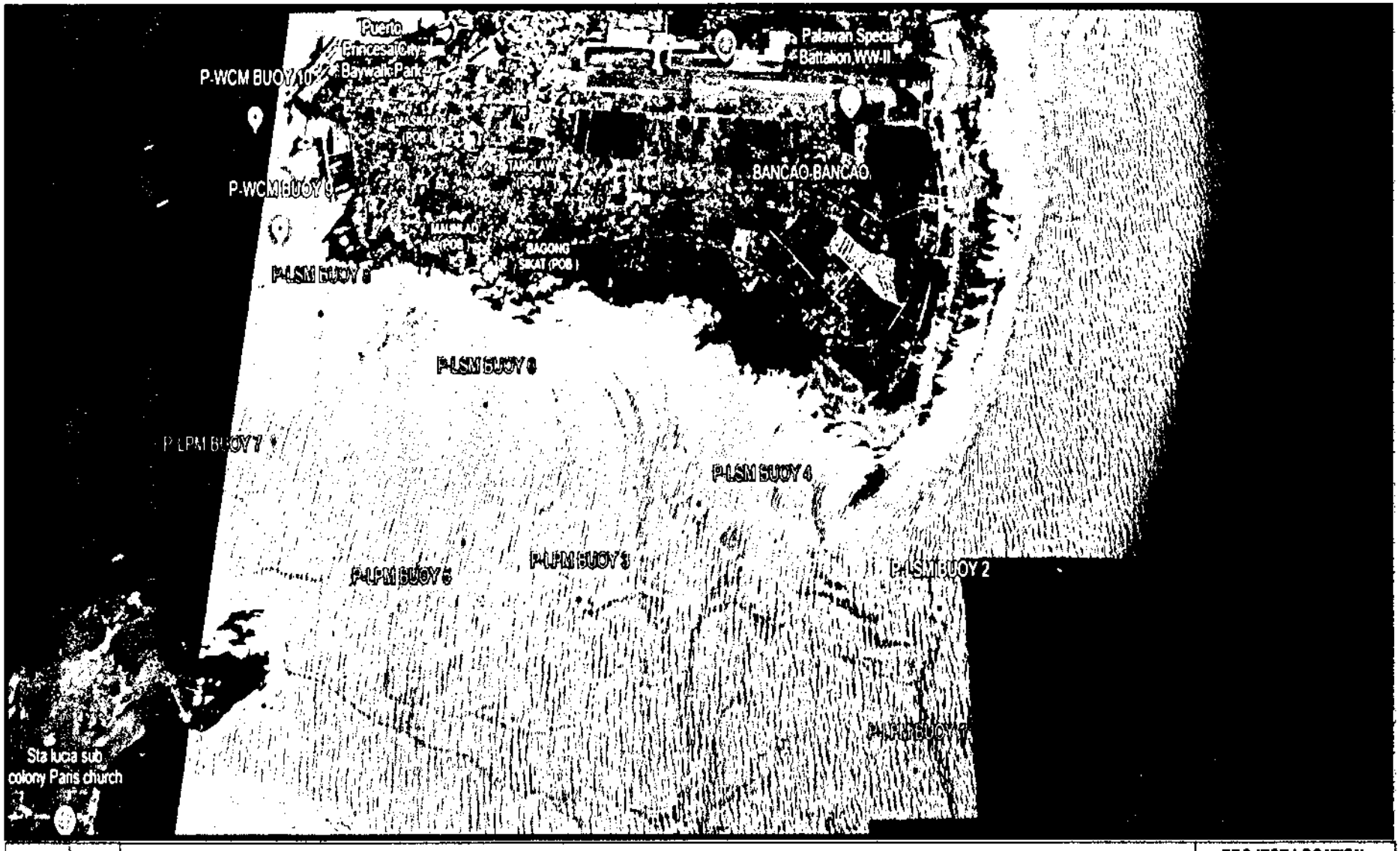
25mmØ JOINING SHACKLE (JS)
1-PC/SET SCALE 1:10



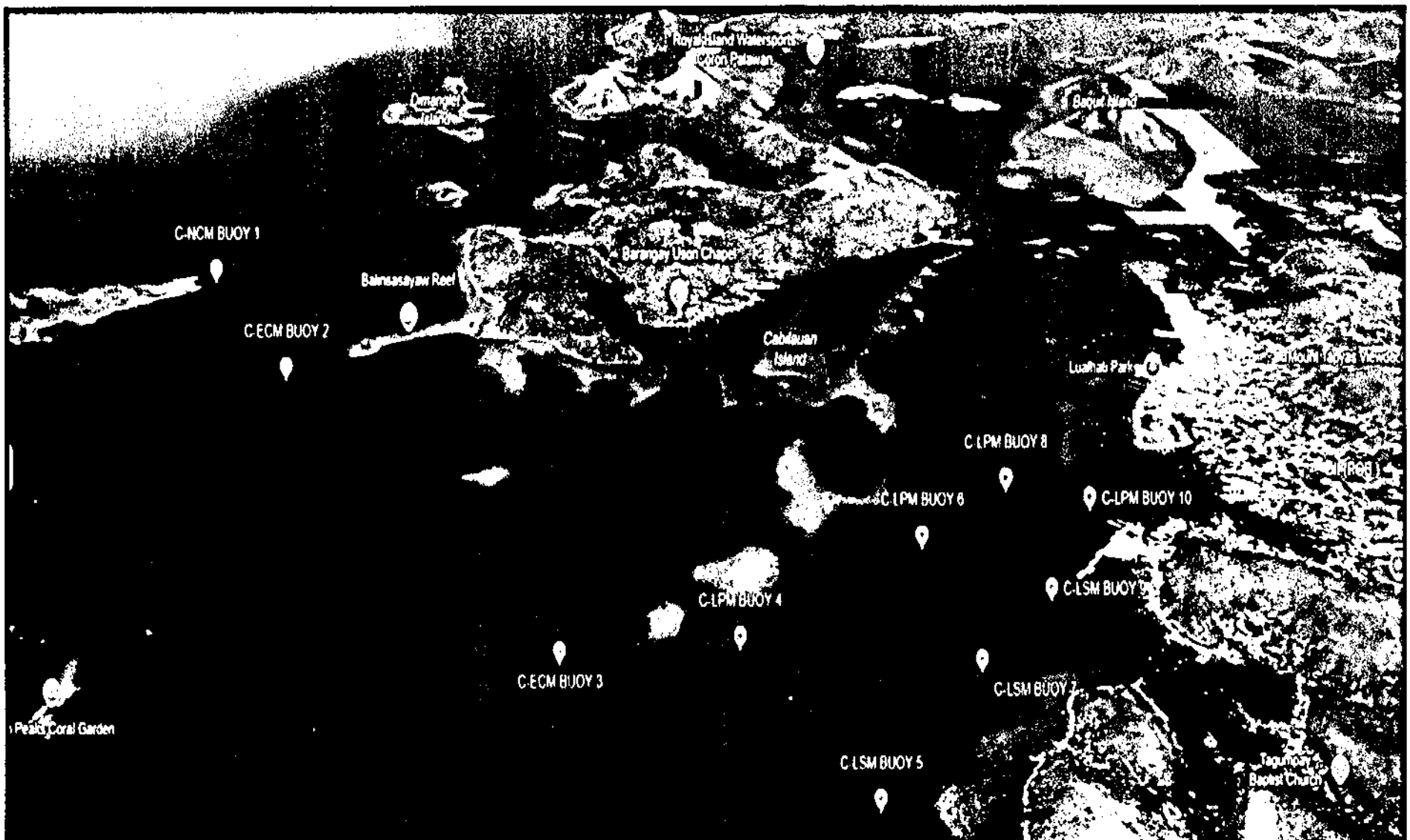
25mmØ ANCHOR SHACKLE (AS)
1-PC/SET SCALE 1:10

CHAIN AND FITTINGS
SCALE 1:10 NTS

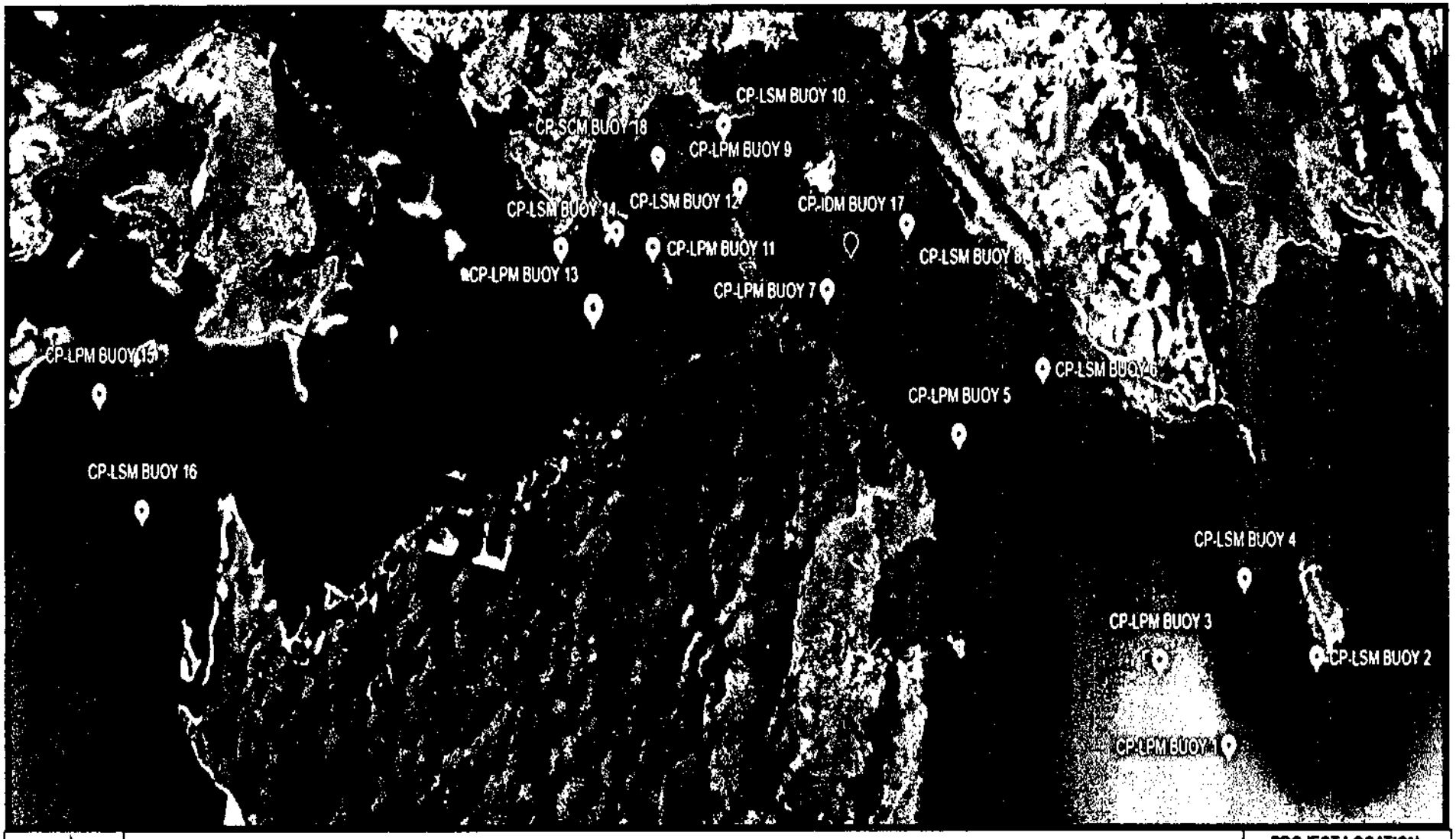
| PROJECT TITLE / LOCATION | DRAWN BY: | SUBMITTED BY: | RECOMMENDING APPROVAL: | APPROVED: | SHEET CONTENTS: | SHEET No. |
|---|---|---|---|---|---|---|
| PROPOSED REPAIR/ REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON | ROWEL C. SANCHEZ Survey Aide NSD | JAN D. CATCHUELA Engineer III, DMS | ALEX O. CASANTUSAN Manager, DMS | ELVIS R. MEDALLA Acting Manager, DMS | • DETAIL OF PROPOSED BUOY<br>• MOORING SYSTEM<br>• CHAIN CONNECTION<br>• CHAIN AND FITTINGS<br>– JOINING SHACKLES<br>– SWIVEL PIECE<br>– ANCHOR SHACKLE<br>– COMMON AND END LINK | SNL 3/3 |




| | | |
|---|---|---|
| PHILIPPINE PORTS AUTHORITY | PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON | PROJECT LOCATION: PUERTO PRINCESA PORT |




| | | |
|---|---|---|
| PHILIPPINE PORTS AUTHORITY | PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON | PROJECT LOCATION: CORON PORT |

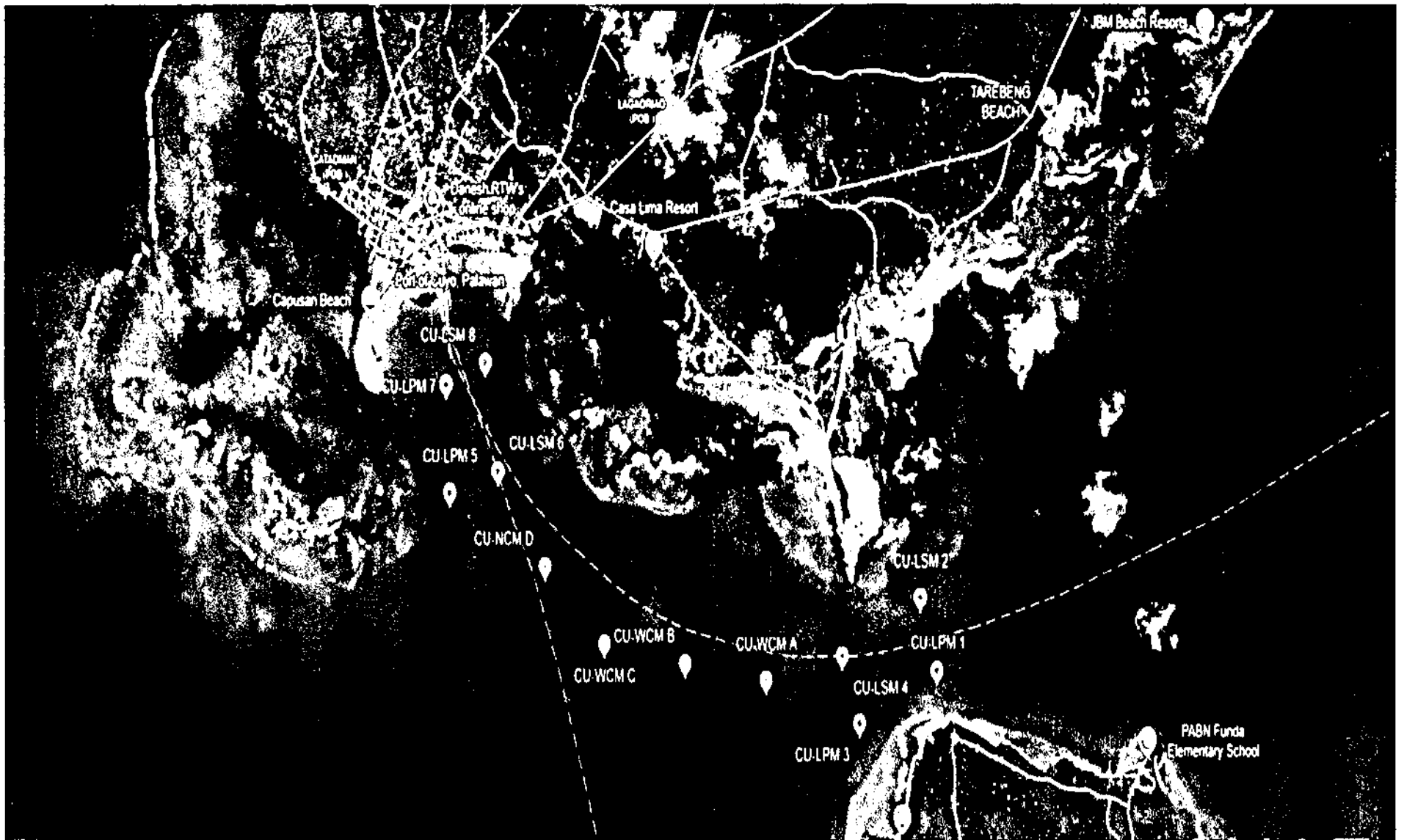



PHILIPPINE PORTS AUTHORITY

**PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**

**PROJECT LOCATION:**

**CORON PASSAGE**




| | | |
|---|---|---|
| PHILIPPINE PORTS AUTHORITY | PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON | PROJECT LOCATION: CUYO PORT |

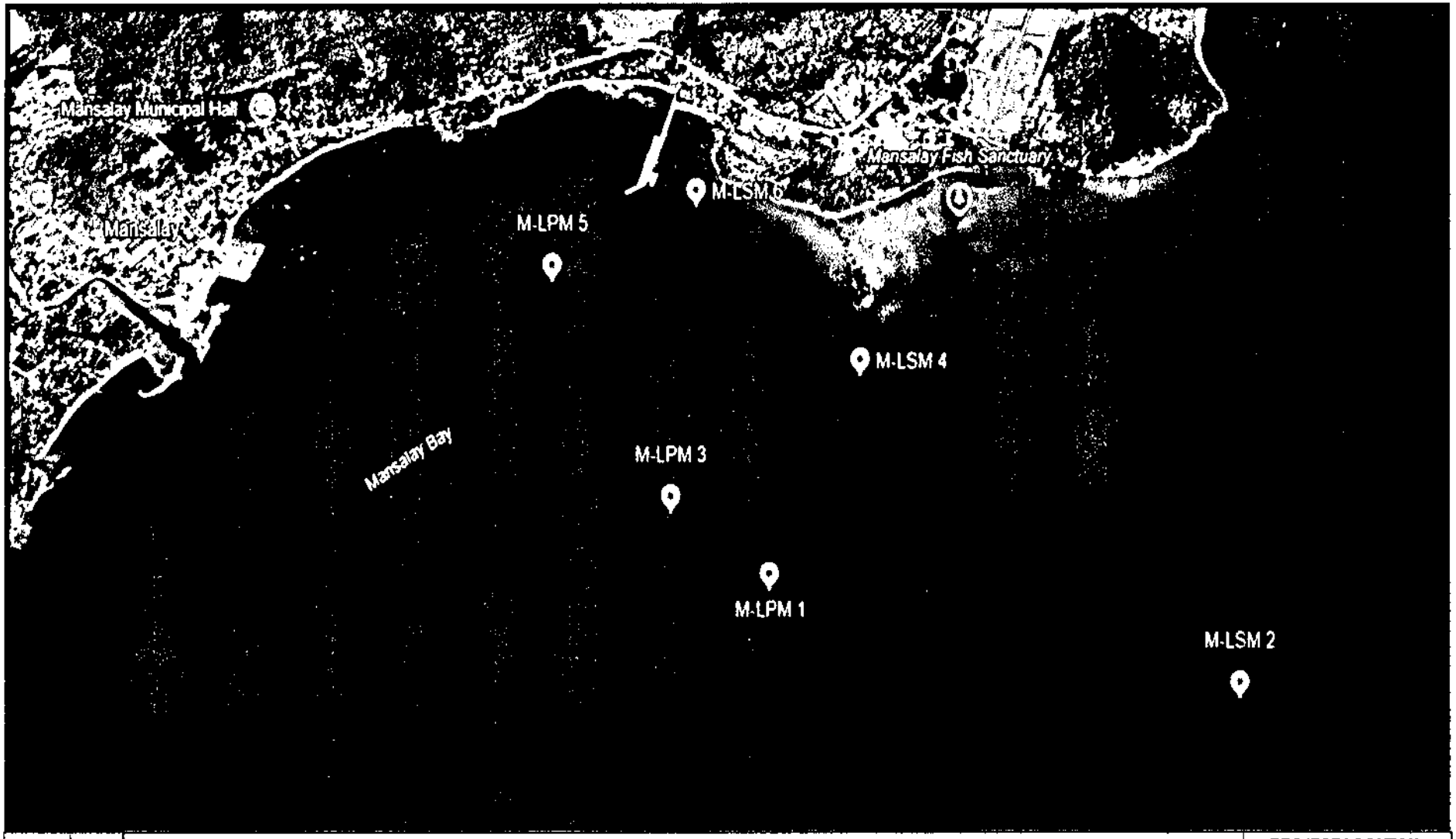



PHILIPPINE PORTS AUTHORITY

**PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**

**PROJECT LOCATION:**

**SAN JOSE PORT**

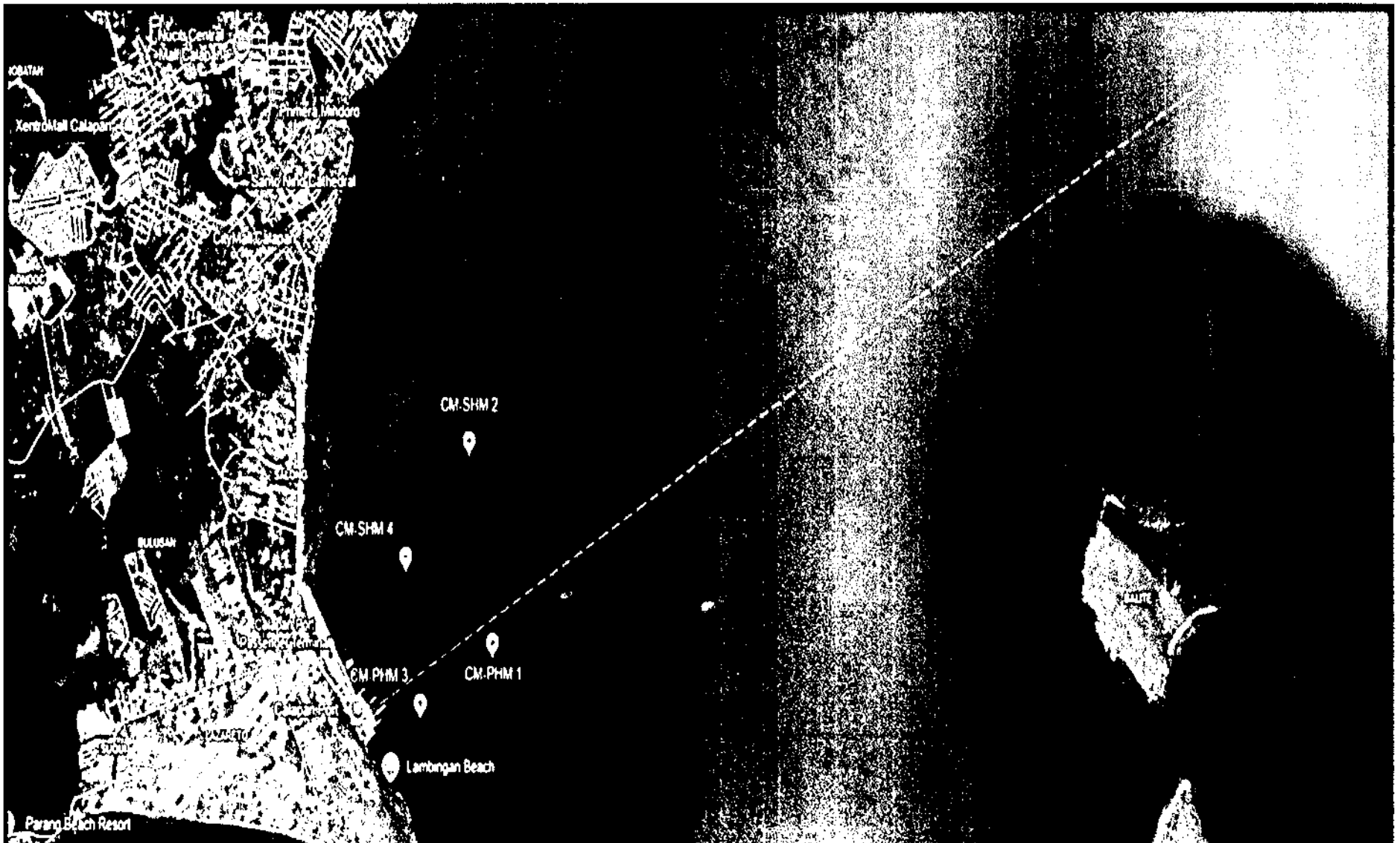



PHILIPPINE PORTS AUTHORITY

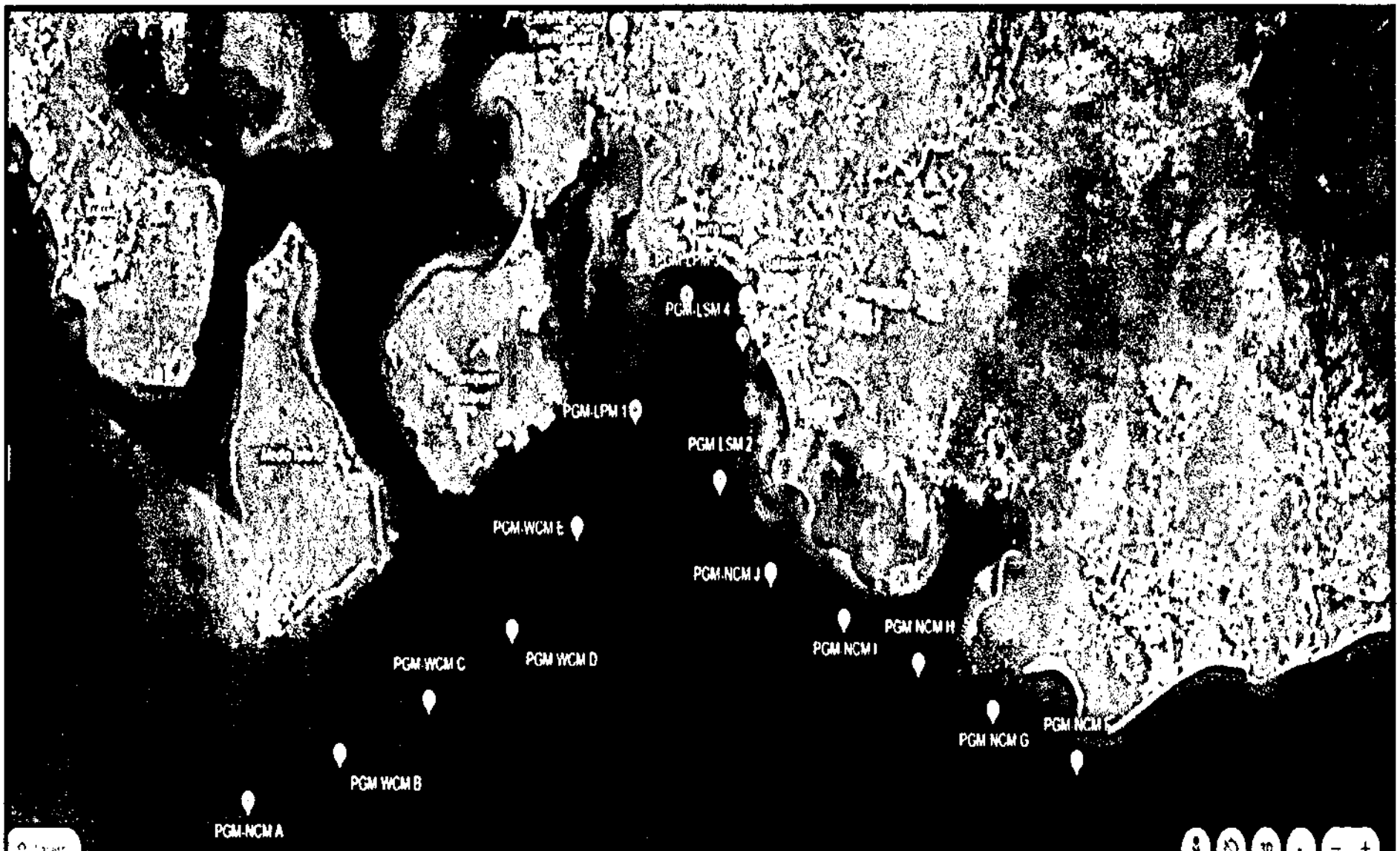
**PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**

**PROJECT LOCATION:**

**MANSALAY PORT**




| | | |
|---|---|---|
| PHILIPPINE PORTS AUTHORITY | PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON | PROJECT LOCATION: CALAPAN PORT |




PHILIPPINE PORTS AUTHORITY

**PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**

**PROJECT LOCATION:**

**PUERTO GALERA PORT**

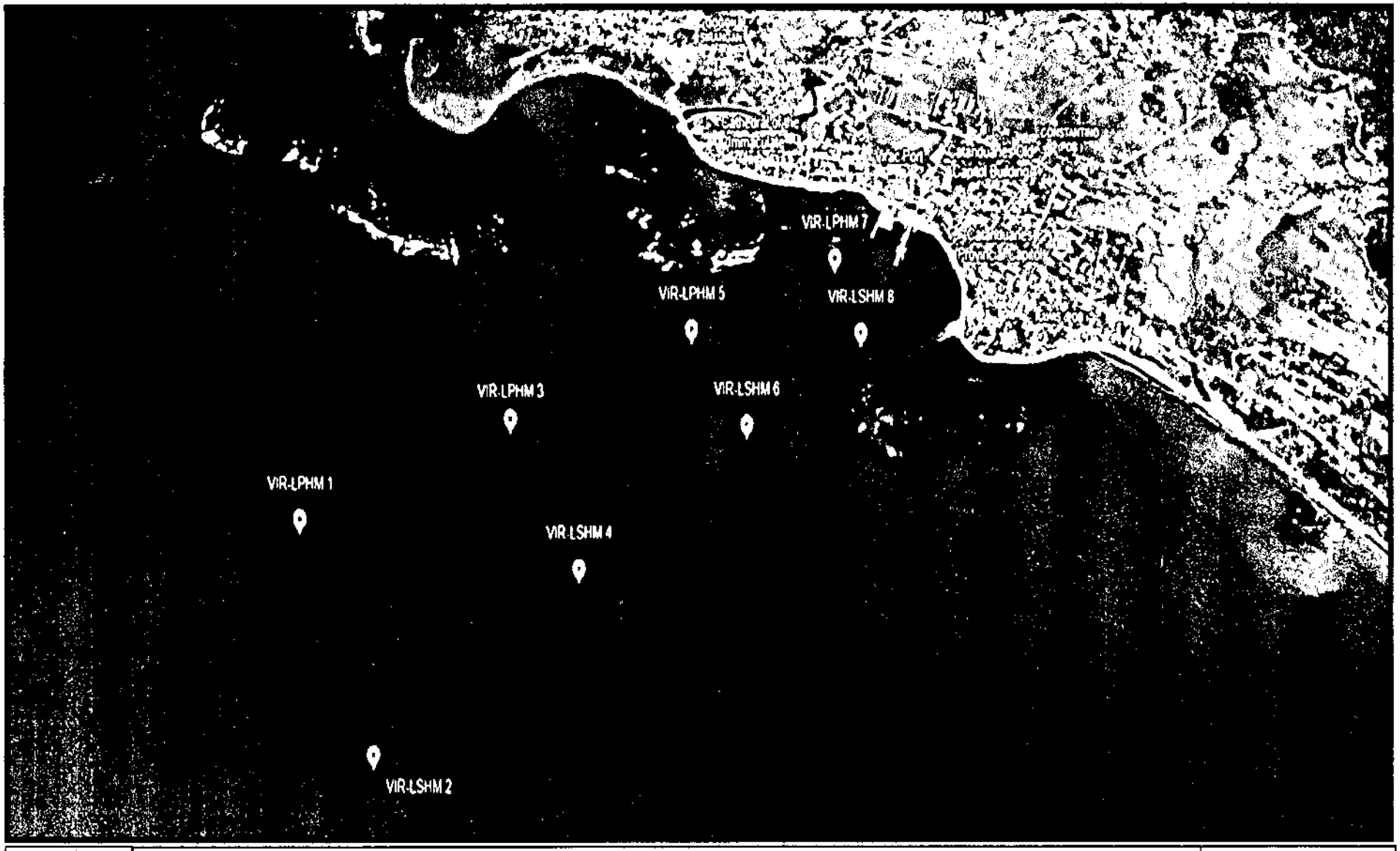



PHILIPPINE PORTS AUTHORITY

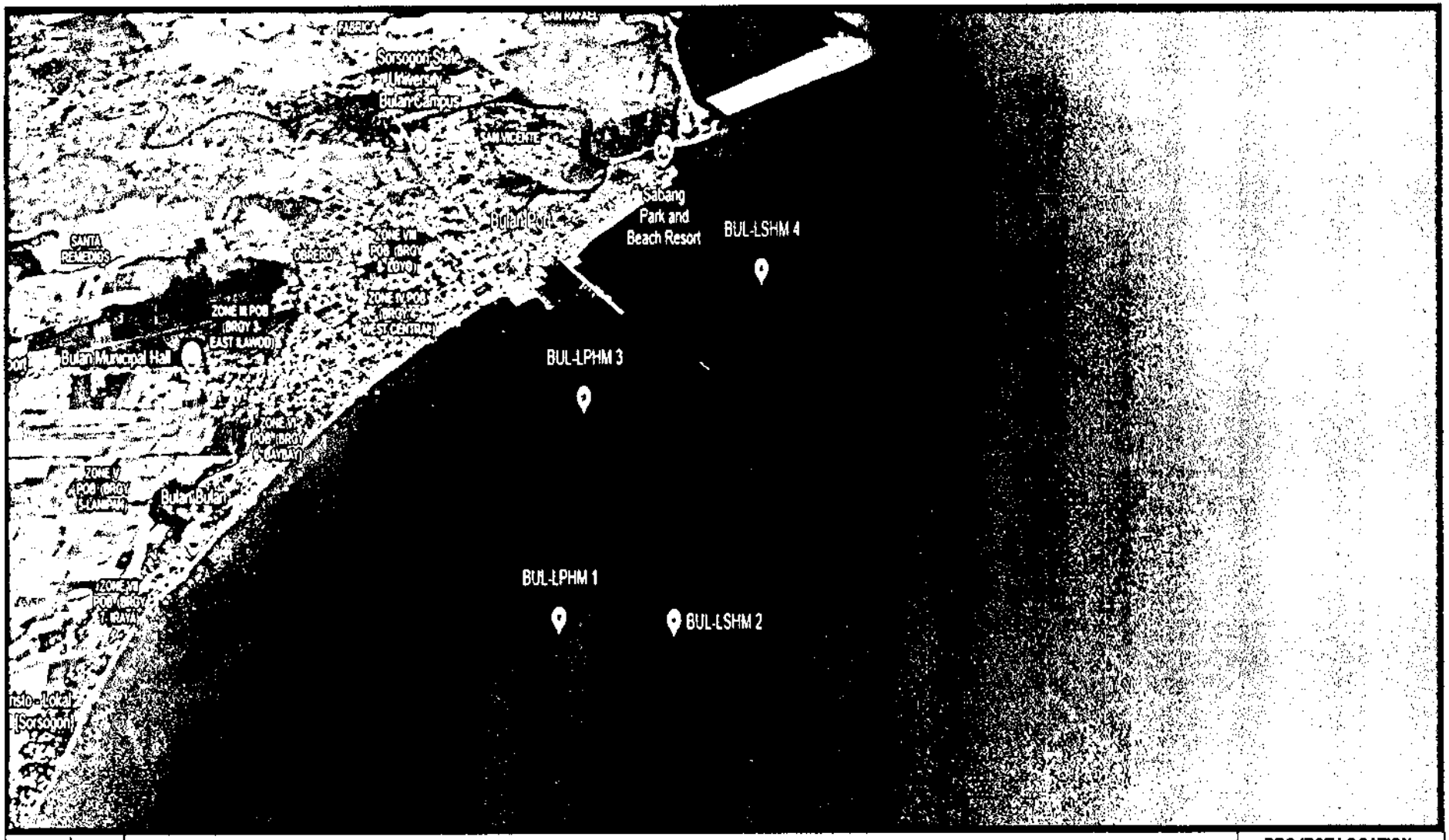
PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON

PROJECT LOCATION:

ROXAS PORT




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|---|---|---|
| PHILIPPINE PORTS AUTHORITY | PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON | PROJECT LOCATION: VIRAC PORT |

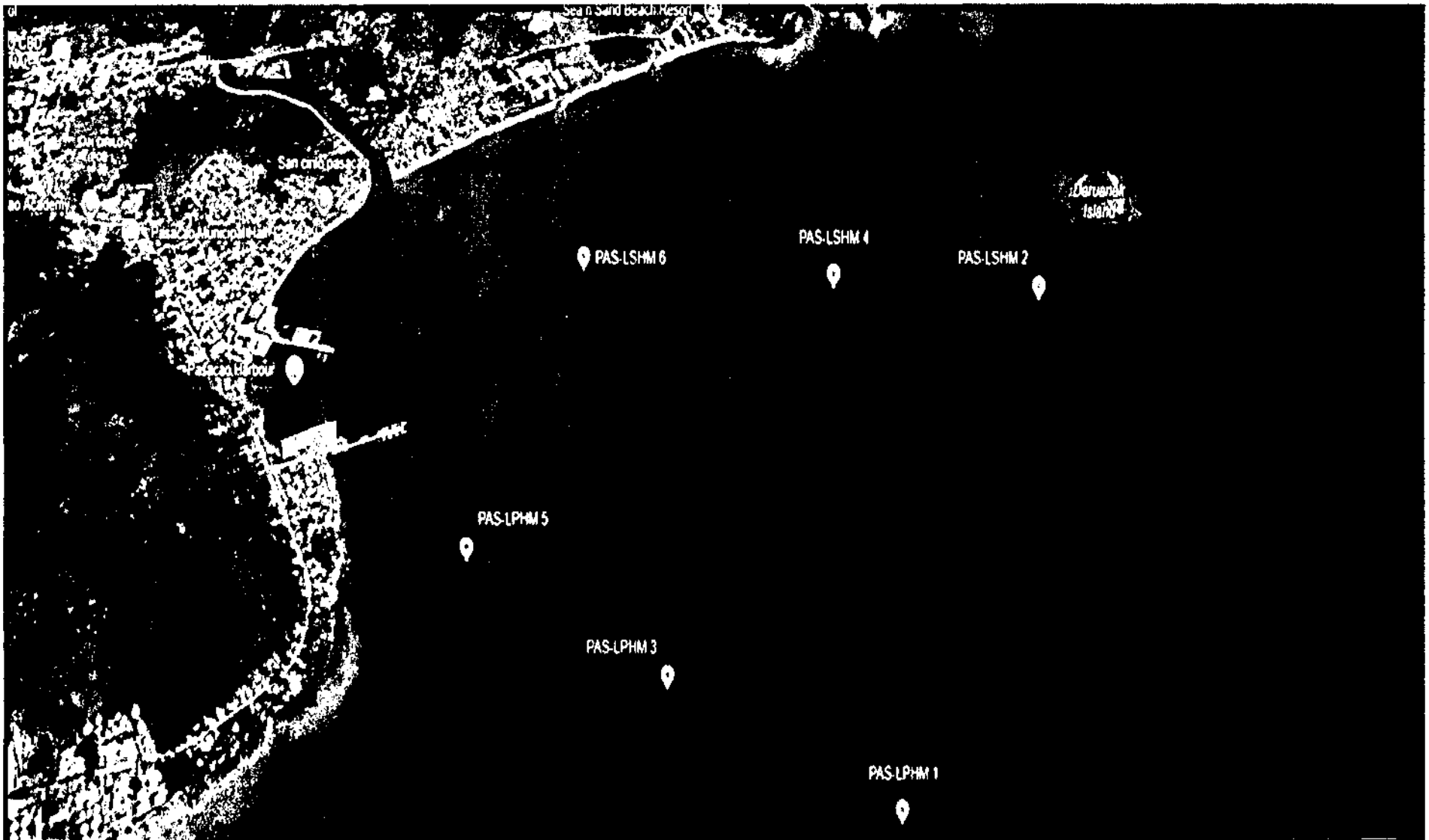



PHILIPPINE PORTS AUTHORITY

**PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**

**PROJECT LOCATION:**

**BULAN PORT**




PHILIPPINE PORTS AUTHORITY

**PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**

**PROJECT LOCATION:**

**PASACAO PORT**




PHILIPPINE PORTS AUTHORITY

**PROPOSED REPAIR/REHABILITATION AND RE-INSTALLATION OF ONE HUNDRED SEVENTY-SEVEN (177) EXISTING SETS AND SUPPLY/ INSTALLATION OF SEVENTEEN (17) NEW SETS AS REPLACEMENT FOR TOTALLY WRECKED/MISSING AIDS TO MARINE NAVIGATIONAL BUOYS AT PORTS UNDER THE JURISDICTION OF PMO-PALAWAN, PMO-MINDORO, PMO-BICOL, PMO-BATANGAS AND PMO-NORTHERN LUZON**

**PROJECT LOCATION:**

**LEGAZPI CITY PORT**