

**PHILIPPINE
PORTS
AUTHORITY**



RENOVATION OF PPA BUILDING MAIN LOBBY

**BID DOCUMENTS
BAC-PGCS-081-2021
(EARLY PROCUREMENT)**

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Glossary of Acronyms, Terms, and Abbreviations

ABC – Approved Budget for the Contract.

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.

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])

CDA - Cooperative Development Authority.

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.

CIF – Cost Insurance and Freight.

CIP – Carriage and Insurance Paid.

CPI – Consumer Price Index.

DDP – Refers to the quoted price of the Goods, which means “delivered duty paid.”

DTI – Department of Trade and Industry.

EXW – Ex works.

FCA – “Free Carrier” shipping point.

FOB – “Free on Board” shipping point.

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]).

Framework Agreement – Refers to a written agreement between a procuring entity and a supplier or service provider that identifies the terms and conditions, under which specific purchases, otherwise known as “Call-Offs,” are made for the duration of the agreement. It is in the nature of an option contract between the procuring entity and the bidder(s) granting the procuring entity the option to either place an order for any of the goods or services identified in the Framework Agreement List or not buy at all, within a minimum period of one (1) year to a maximum period of three (3) years. (GPPB Resolution No. 27-2019)

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.

GPPB – Government Procurement Policy Board.

INCOTERMS – International Commercial Terms.

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.

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.

Supplier – refers to a citizen, or any corporate body or commercial company duly organized and registered under the laws where it is established, habitually established in business and engaged in the manufacture or sale of the merchandise or performance of the general services covered by his bid. (Item 3.8 of GPPB Resolution No. 13-2019, dated 23 May 2019). Supplier as used in these Bidding Documents may likewise refer to a distributor, manufacturer, contractor, or consultant.

UN – United Nations.



INVITATION TO BID

FOR THE RENOVATION OF PPA BUILDING MAIN LOBBY

The Philippine Ports Authority, through the Corporate Budget of the Authority for CY 2021, intends to apply the sum of **₱ 4,243,583.87** being the Approved Budget for the Contract (ABC) to payments under the contract for the **Renovation of PPA Building Main Lobby (BAC-PGCS-081-2021) (Early Procurement)**. 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 Work is required within **One Hundred Twenty (120) calendar days** from the receipt by the successful bidder of the Notice to Proceed. Bidders should have completed, within five (5) years from the date of submission and receipt of bids, 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. Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA 5183.

Prospective 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 during 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 **11 February 2021** 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 **Five Thousand Pesos (P5,000.00)**. 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 **19 February 2021 at 10:00 a.m.** at the PPA Function Room, 7th Floor, PPA Bldg., Bonifacio Drive, South Harbor, Port Area, Manila, and/or through video conferencing or webcasting via zoom, 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 **04 March 2021 at 1:00 p.m.** Late bids shall not be accepted.


All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 14.

Bid opening shall be on 04 March 2021 at 2:00 p.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 Section 35.6 and 41 of the 2016 revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

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. 8 527-47-35
8 527-83-56 to 83 loc. 539
PPA Website: www.ppa.com.ph
GPPB Website: www.gpbb.com.ph



MARK JON S. PALOMAR
Chairperson, PPA Head Office Bids and Awards
Committee for the Procurement of Goods and
Consultancy Services (HO-BAC-PGCS)

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, PHILIPPINE PORTS AUTHORITY wishes to receive Bids for the **Renovation of PPA Building Main Lobby**, with identification number **BAC-PGCS-081 -2021**.

The Procurement Project (referred to herein as “Project”) is composed of a single lot, the details of which are described in Section VII (Technical Specifications).

2. Funding Information

2.1. The Philippine Ports Authority through its corporate budget for the Calendar Year (CY) 2021 in the amount of **FOUR MILLION TWO HUNDRED FORTY THREE THOUSAND FIVE HUNDRED EIGHTY THREE PESOS AND 87/100 (Php4,243,583.87)**.

2.2. The source of funding is the Corporate Budget of the PHILIPPINE PORTS AUTHORITY.

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 Manuals 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 **IB** 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 verified and accepted the general requirements of this Project, including 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, and Coercive Practices

The Procuring Entity, as well as the Bidders and Suppliers, 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 Foreign ownership limited to those allowed under the rules may participate in this Project.
- 5.3 Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to at least fifty percent (50%) of the ABC.
- 5.4 The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.

6. Origin of 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, subject to Domestic Preference requirements under **ITB** Clause 18.

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 twenty percent (20%) of the Project.

The Procuring Entity has prescribed that:

Subcontracting is not allowed.

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 at the PPA Function Room, 7th Floor, PPA Building, Bonifacio Drive, South Harbor, Port Area, Manila 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 VIII (Checklist of Technical and Financial Documents)**.
- 10.2 The Bidder's SLCC as indicated in **ITB** Clause 5.3 should have been completed within five (5) years prior to the deadline for the submission and receipt of bids.

- 10.3. 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. Similar to the required authentication above, 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.

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 VIII (Checklist of Technical and Financial Documents)**.
- 11.2. If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.
- 11.3. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.4. 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. Bid Prices

- 12.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:
- a. For Goods offered from within the Procuring Entity's country:
 - i. The price of the Goods quoted EXW (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable);
 - ii. The cost of all customs duties and sales and other taxes already paid or payable;
 - iii. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
 - iv. The price of other (incidental) services, if any, listed in e.
 - b. For Goods offered from abroad:
 - i. Unless otherwise stated in the **BDS**, the price of the Goods shall be quoted delivered duty paid (DDP) with the place of destination

in the Philippines as specified in the **BDS**. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.

- ii. The price of other (incidental) services, if any, as listed in **Section VII (Technical Specifications)**.

13. Bid and Payment Currencies

13.1. For Goods that the Bidder will supply from outside the Philippines, the 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.

13.2. Payment of the contract price shall be made in Philippine Pesos.

14. Bid Security

14.1. The Bidder shall submit a Bid Securing Declaration¹ 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**.

14.2. The Bid and bid security shall be valid for One Hundred Twenty (120) calendar days from the date of the opening of bids. Any Bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

15. Sealing and Marking of Bids

Each bidder shall submit one copy of the first and second components of the 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 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.

16. Deadline for Submission of Bids

¹ In the case of Framework Agreement, the undertaking shall refer to entering into contract with the Procuring Entity and furnishing of the performance security or the performance securing declaration within ten (10) calendar days from receipt of Notice to Execute Framework Agreement.

- 16.1. 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**.

17. Opening and Preliminary Examination of Bids

- 17.1. 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.

- 17.2. The preliminary examination of bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

18. Domestic Preference

- 18.1. The Procuring Entity will grant a margin of preference for the purpose of comparison of Bids in accordance with Section 43.1.2 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

- 19.1. The Procuring 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 the 2016 revised IRR of RA No. 9184.
- 19.2. If the Project allows partial bids, bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, as the case maybe. In this case, the Bid Security as required by **ITB** Clause 15 shall be submitted for each lot or item separately.
- 19.3. The descriptions of the lots or items shall be indicated in **Section VII (Technical Specifications)**, although the ABCs of these lots or items are indicated in the **BDS** for purposes of the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184. The NFCC must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder.
- 19.4. The Project shall be awarded as one Project having several items that shall be awarded as one contract.
- 19.5. Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must include the NFCC computation pursuant to Section 23.4.1.4 of the 2016 revised IRR of RA No. 9184, which must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder. For bidders submitting the

committed Line of Credit, it must be at least equal to ten percent (10%) of the ABCs for all the lots or items participated in by the prospective Bidder.

20. Post-Qualification

- 20.1. 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

- 21.1. 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**.

Bid Data Sheet

ITB Clause	
5.3	<p>For this purpose, contracts similar to the Project shall be:</p> <ul style="list-style-type: none"> a. Contract for the Interior Renovation/Fit-out or Supply and Delivery of Furniture and Fixtures. b. completed within five (5) years prior to the deadline for the submission and receipt of bids.
7.1	Subcontracting is not allowed.
12	The price of the Goods shall be quoted DDP <i>[Manila]</i> or the applicable International Commercial Terms (INCOTERMS) for this Project.
14.1	<p>The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:</p> <ul style="list-style-type: none"> a. The amount of not less than Eighty Four Thousand Eight Hundred Seventy One Pesos and 68/100 (Php84,871.68), if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or b. The amount of not less than Two Hundred Twelve Thousand One Hundred Seventy Nine Pesos and 19/100 (Php212,179.19) if bid security is in Surety Bond.
15	<p>Each Bidder shall submit ONE (1) original and SIX (6) copies of its Technical and Financial Components of its Bid in two (2) separate sealed bid envelopes, which should be submitted simultaneously. Each of the bid documents should be individually sealed.</p> <p>All bid documents shall be book-bound, hard-bound and properly labelled with index tabs.</p>
19.3	Partial bid is not allowed. The goods are grouped in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.
20.2	No additional requirements.
21.1	No additional requirements.

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.

Additional requirements for the completion of this Contract shall be provided in the **Special Conditions of Contract (SCC)**.

2. Advance Payment and Terms of Payment

- 2.1. Advance payment of the contract amount is provided under Annex “D” of the revised 2016 IRR of RA No. 9184.
- 2.2. The Procuring Entity is allowed to determine the terms of payment on the partial or staggered delivery of the Goods procured, provided such partial payment shall correspond to the value of the goods delivered and accepted in accordance with prevailing accounting and auditing rules and regulations. The terms of payment are indicated in the SCC.

3. Performance Security

Within ten (10) calendar days from receipt of the Notice of Award by the Bidder from the Procuring Entity but in no case later than prior to 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 of RA No. 9184.

4. Inspection and Tests

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the SCC, **Section IV (Technical Specifications)** shall specify what inspections and/or tests the Procuring Entity requires, and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

All reasonable facilities and assistance for the inspection and testing of Goods, including access to drawings and production data, shall be provided by the Supplier to the authorized inspectors at no charge to the Procuring Entity.

5. Warranty

- 6.1. In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier as provided under Section 62.1 of the 2016 revised IRR of RA No. 9184.
- 6.2. The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof without cost to the Procuring Entity, pursuant to the Generic Procurement Manual.

6. Liability of the Supplier

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

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

Section V. Special Conditions of Contract

Special Conditions of Contract

GCC Clause	
1	<p>Delivery and Documents –</p> <p>For purposes of the Contract, “EXW,” “FOB,” “FCA,” “CIF,” “CIP,” “DDP” and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published by the International Chamber of Commerce, Paris. The Delivery terms of this Contract shall be as follows:</p> <p><i>[For Goods supplied from abroad, state:]</i> “The delivery terms applicable to the Contract are DDP delivered <i>[indicate place of destination]</i>. In accordance with INCOTERMS.”</p> <p><i>For Goods supplied from within the Philippines, state:]</i> “The delivery terms applicable to this Contract are delivered <i>[indicate place of destination]</i>. Risk and title will pass from the Supplier to the Procuring Entity upon receipt and final acceptance of the Goods at their final destination.”</p> <p>Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI (Schedule of Requirements).</p> <p>For purposes of this Clause the Procuring Entity’s Representative at the Project Site is Philippine Ports Authority-Head Office, Manila</p> <p>Incidental Services –</p> <p>The Supplier is required to provide all of the following services, including additional services, if any, specified in Section VI. Schedule of Requirements:</p> <ol style="list-style-type: none"> a. performance or supervision of on-site assembly and/or start-up of the supplied Goods; b. furnishing of tools required for assembly and/or maintenance of the supplied Goods; c. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods; and d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract. <p>The Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.</p> <p>Spare Parts –</p> <p>The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:</p>

- a. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; and
- b. in the event of termination of production of the spare parts:
 - i. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements; and
 - ii. following such termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested.

The spare parts and other components required are listed in **Section VI (Schedule of Requirements)** and the cost thereof are included in the contract price.

The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Goods for a period of ten (10) years after the last day of manufacturing of the specific model.

Spare parts or components shall be supplied as promptly as possible, but in any case, within two (2) months of placing the order.

Packaging –

The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified below, and in any subsequent instructions ordered by the Procuring Entity.

The outer packaging must be clearly marked on at least four (4) sides as follows:

Name of the Procuring Entity
 Name of the Supplier
 Contract Description
 Final Destination
 Gross weight
 Any special lifting instructions
 Any special handling instructions
 Any relevant HAZCHEM classifications

	<p>A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.</p> <p>Transportation –</p> <p>Where the Supplier is required under Contract to deliver the Goods CIF, CIP, or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be specified in this Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.</p> <p>Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.</p> <p>Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be considered force majeure.</p> <p>The Procuring Entity accepts no liability for the damage of Goods during transit other than those prescribed by INCOTERMS for DDP deliveries. In the case of Goods supplied from within the Philippines or supplied by domestic Suppliers risk and title will not be deemed to have passed to the Procuring Entity until their receipt and final acceptance at the final destination.</p> <p>Intellectual Property Rights –</p> <p>The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.</p>
2.2	<p>The terms of payment shall be as follows:</p> <ul style="list-style-type: none"> • 35% upon completion of the corresponding percentage of renovation works; • 35% upon completion of another 35% of renovation works;

	<ul style="list-style-type: none"> • 30% upon full completion of renovation works and delivery of furniture and fixtures. <p>Certificate of Completion & Acceptance shall be provided by the procuring entity/end-user for purposes of payment.</p>
4	<p>The inspections and tests that will be conducted are:</p> <ul style="list-style-type: none"> • On Painting (see Annex C of the TOR) <p>Inspection</p> <p>All works and materials supplied under this Specification shall be subject to inspection by the Engineer.</p> <p>The Contractor shall correct such works or replace such materials found defective under these Specifications at his own expense.</p> <ul style="list-style-type: none"> • On Electro/Mechanical Works (see Annex E of the TOR) <p>Testing Operations</p> <p>When the electro/mechanical installation is complete, the Contractor shall test the installed electrical materials and equipment in the presence of Registered Electrical Engineer or Master Electrician. The system shall be free from any defects, shorts or grounds. The Contractor at no extra cost shall furnish all necessary instruments and personnel required for the testing to the Authority.</p> <ul style="list-style-type: none"> • On Supply, Relocation and Installation of Sprinkler Head (see Annex F of the TOR) <p>Acceptance Test</p> <p>All tests required in the commissioning and testing works shall be passed under the supervision of qualified Engineer or Architect. All necessary documents required in the approved quality control program shall be submitted to PPA with issued warranty.</p>

Section VI. Schedule of Requirements

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item Number	Description²	Quantity	Total	Delivered, Weeks/Months
	Renovation of PPA Building Main Lobby			Within one hundred twenty (120) calendar days from receipt by the winning bidder of the Notice to Proceed.

² Subject to the Technical Specifications under Item No. 4 of the Terms of Reference

Section VII. Technical Specifications

Technical Specifications

Item	Specification	Statement of Compliance
		<p><i>[Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be</i></p>

		<i>false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]</i>
	RENOVATION OF PPA BUILDING MAIN LOBBY	
	SCOPE OF WORK A. Demolition and Removal Works B. Architectural Finishes C. Painting D. Carpentry and Joinery Works E. Electro-Mechanical Works F. Supply, Relocation and Installation of Head Sprinkler	
	TECHNICAL SPECIFICATIONS	
	A. REMOVAL AND DISPOSAL WORKS	
	Description The work includes the furnishing of all labor, materials and equipment required to carry out the demolition and removal works as required for the execution of the Contract. The Contractor shall submit the proposed methodology or procedure of demolition work with detailed drawings and calculations if necessary, to the Project-In-Charged for approval, before the execution of the Works.	
	General Provisions 1. The Contractor shall be deemed to have satisfied himself of the site conditions, and to have included in his unit prices provision for all risks that may arise during or in connection with the work. 2. Materials coming from the demolition works, except general earth, shall remain the property of the Procuring Entity, the designated part of which shall be	

	<p>stored by the Contractor at places specified by the Project-In-Charged/ Accepting authority. Receiving copy of Turn-Over Report shall be provided.</p> <p>3. The Contractor shall set-up a temporary board up for security purpose after the removal works.</p>	
	<p>Execution</p> <p>1. Prior to the commencement of demolition works, the alignments of the new construction works to existing structure shall be checked.</p> <p>2. Materials coming from the demolition works shall be properly disposed by the Contractor.</p> <p>3. All openings and any entry point shall be barricaded with temporary plywood, wood bracings and nails or any similar material for the purpose of boarding up the building.</p>	
	<p>Safety</p> <p>During the course of survey and clearing, any obstacles which are recognized and seemed to be explosive or hazardous to workers shall be removed from the site by the proper Authority.</p> <p>At the end of each day's work, the Contractor shall keep the workplace in safe condition and clean so that no part is in danger of falling or creating hazard to personnel or equipment.</p>	
	B. FINISHES	
	<p>General</p> <p>General Requirements contain provisions and requirements essential to these Specifications; and apply to this section, whether or not referred to herein.</p>	
	<p>Scope of Work</p> <p>The work covered by this section consist of furnishing all labor, materials, equipment, tools and incidentals necessary to undertake, complete all finishing works and painting for the buildings as indicated on the drawings and as specified herein.</p> <p>Wall, floor, ceiling and other finishing works shall include</p>	

	but are not limited to the following:	
	<p>Wall</p> <p>3.01 Expanded Polystyrene Panel (EPS)</p> <p>Expanded Polystyrene (EPS) is a lightweight cellular plastic material consisting of small hollow spherical balls. It is this closed cellular construction that gives EPS its remarkable characteristics.</p> <p>EPS is produced in a wide range of densities providing a varying range of physical properties. These are matched to the various applications where the material is used to optimize its performance and strength.</p> <p>Use 100 mm thick light weight non bearing composite wall, composed of calcium silicate cement board with a mixture of cement, expanded polystyrene (EPS) and sand bonded together using technical additives.</p>	
	<p>Execution</p> <ol style="list-style-type: none"> 1. Check and setup the area <p>Repair uneven or unlevelled surfaces before cleaning the area</p> 2. Wall Positioning <p>Use leveling device to prepare area for wall panel installation.</p> 3. Prepare Adhesive <p>Prepare the cement adhesive and lay it on the foundation</p> 4. Sizing and Cutting the Panels <p>Cut to size using a circular saw according to specifications</p> 5. Installing the Panels <ul style="list-style-type: none"> • Install panel in upright position • Apply cement adhesive in between panels • Use a crowbar to move wall panel to the desired position • Use rubber or wood wedge to temporarily align wall panel 	

	<ul style="list-style-type: none"> • Secure panels by driving 8mm diameter x 250mm rebar at 45° into panels and slab to hold in place. Use same method for joining panels together <p>6. Grouting</p> <ul style="list-style-type: none"> • Apply grout to panel joints • Spray PU foam between panel and structural joint <p>7. Clean Up</p> <p>Remove excess grout using scrapper before it dries</p>	
	<p>3.02 Finishes</p> <p>WF -1 - 600mm X 1200mm Borgogna White Wall tiles. (or approved Equivalent)</p> <p>Layout as shown in the plans.</p>	
	<p>Execution</p> <p>Use large tile and stone mortar tile adhesive or approved equivalent.</p>	
	<p>Surface Preparation</p> <p>All substrates should be structurally sound, stable, dry, clean, and free of any substance or condition that may reduce or prevent proper adhesion.</p>	
	<p>Mixing</p> <p>Before starting, take appropriate safety precautions and choose all appropriate safety equipment.</p> <ol style="list-style-type: none"> 1. Into a clean mixing container, pour about 6-6.5 US qts. (5.68-6.15 L) of clean water. 2. Gradually add 50 lbs ((22.7 kg) of powder while slowly mixing using an electric drill with an angled cross-blade mixer or double-box mixer. 3. Continue low- speed mixing (at about 300 rpm) for about 3 minutes until the mixture becomes a smooth, lump- free paste. Avoid prolonged mixing. 4. Let the mixture stand for 5 minutes. 5. Remix for 2 minutes. 	

	6. If the mixture becomes heavy or stiff within 2 hours, remix without adding more liquid.	
	Product Application <ol style="list-style-type: none"> 1. Choose a notched trowel with the sufficient depth to achieve > 80% mortar contact to both the tile and substrate for all the interior applications, and >95% for exterior installations, commercial floor and wet applications. It may be necessary to back –butter in order to reach these requirements. 2. With pressure, apply a coat by using the trowel's flat side to key mortar into the substrate. 3. Apply additional mortar, combing it in a single direction with the trowel's notched side. 4. Spread only as much as mortar as can be tiled while still tacky. Open time can vary with jobsite conditions. 5. Place the tiles firmly into the wet mortar. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse the mortar ridges and help achieve maximum coverage. Ensure proper contact between the mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage. 6. Remove excess mortar from the joint areas so that at least 2/3 of the tile depth is available for grouting. 	
	Expansion and Control Joints <ul style="list-style-type: none"> • Provide for expansion and control as specified. • Do not cover any expansion joints with mortar. 	
	Clean Up <ul style="list-style-type: none"> • While mortar is fresh, clean tools and tile with water. 	
	Protection <ul style="list-style-type: none"> • Protect from foot traffic 24 hours before grouting • Protect from heavy traffic, frost and rain for 7 days. 	

	<p>3.03 Wood Veneer</p> <p>Use Walnut recon wood veneer on MDF backing will be used for the portal and the seat with selected good wood framing.</p> <p>Location and details of the portal are shown in the plan.</p> <p>Veneer is technically a thin layer of hardwood, usually thinner than 1/8 of an inch. Typically, veneer is bonded, or glued with adhesive, to a cheaper surface that is hidden below. A less expensive wood or particle board can often be found underneath.</p> <p>Veneer can be sanded along the grain, painted and stained because it is real wood. When working with it though, you must be very careful not to overdo it, remembering that the layer is very thin and can quickly be worn down with a power sander.</p>	
	<p>3.04 Upholstery</p> <p>Use Pattern 1118 Graph 03WH or approved equivalent for the wall of the portal.</p> <p>Use Fabric for the seat cushion.</p> <p>Design and details are shown in the plan.</p>	
	<p>3.05 Baseboard</p> <p>Baseboards are also referred to as base or skirting. The main purpose of baseboard is to cover the joint between the wall surface and the floor, as well as for decorations.</p> <p>Baseboard reveal in paint finish. Detail is shown in the plan.</p>	
	<p>3.06 Floors</p> <p>Supply and installation of the following floor finishes. Details and locations are shown in the plan.</p> <ol style="list-style-type: none"> 1. FF1 - 800mm X 800mm GPS02 Phoebe Polished Porcelain Floor Tiles or approved equivalent <p>Location is shown in the plan.</p>	


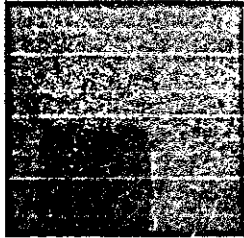
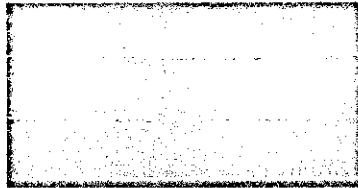
	<p>2. FF2 - Accent Flooring 800mm X 800mm Smoked Gray Matte Polished Porcelain Tiles or approved equivalent.</p> <p>Location is shown in the plan.</p> <p>3. SS1 - 4.5mm Stainless Steel strip Termination</p> <p>Location is shown in the plan.</p> <ul style="list-style-type: none"> a. Floor tiles shall be color varies and as shown on the drawings or to be designated by the Architect. b. Portland Cement, sand, water and adhesive shall conform with the requirements. c. Floor tiles shall be delivered in the manufacturer's original unbroken packages or containers that are labeled plainly with the manufacturer's name and brand. Containers shall be grade scaled. Materials shall be stored in dry weathertight enclosures, and shall be handled in a manner that will prevent the inclusion of foreign materials and damage by water or dampness. 	
	<p>Execution</p> <p>Floor Tiles</p> <ul style="list-style-type: none"> a. Mortar Preparation <p>Mortar mix proportion and preparation shall be in accordance with the requirements.</p> b. Surface Preparation <p>Surfaces to receive the tiles shall be clean, free of dust, dirt, oil, grease, and other deleterious substances. Floor tile operations in spaces receiving wall tile shall not be started until wall tile installation has been completed. Before tile is applied with a dryset mortar bed, the structural floor shall be tested for levelness or uniformity of slope by flooding it with water. Areas where the water ponds shall be filled and leveled with mortar and shall be retested before the setting bed is applied.</p> 	




	<p>c. Placing of Setting Beds and Floor Tile</p> <p>Mortar setting beds shall have a minimum thickness of 20mm for floors. The structural concrete slab shall be soaked thoroughly with clean fresh water on the day before the setting bed is to be applied. Immediately preceding the application of the setting bed, the structural slab shall again be wetted thoroughly, but no free water shall be permitted to remain on the surface.</p> <p>A skim coat of neat Portland cement mortar shall then be applied not more than 4mm thick. The mortar shall be spread until its surface is true and even and thoroughly compacted, either level or sloped uniformly for drainage, as the case requires. A setting bed, as large as can be covered with tile before the mortar has reached its initial set, shall be placed on one operation; but in the event that more setting mortar has been placed than can be covered, the unfinished portion shall be removed and cut back to a clean beveled edge.</p> <p>All mounted tiles shall be soaked in clean water a minimum of one hour before they are set. Absorptive mounted tile shall be dampened by placing sheets on a wetted cloth in a shallow pan before setting. No free water shall remain on the tiles at the time of setting. Before the initial set has taken place in the setting bed, a skim coat of neat Portland cement mortar, 0.7mm to 1.6mm thick, shall be trowelled or brushed over the setting bed and/or the back of the tile, or a thin layer of Portland cement, 0.79mm to 2mm thick, may be hand-dusted uniformly over the setting bed and worked lightly with a trowel or brush until thoroughly damp.</p> <p>The tiles shall then be pressed firmly upon the setting bed, and beaten into the mortar until true and even with the plane of the finished floor line. Beating and leveling shall be completed within one hour after placing tiles or sheets. Borders and defined lines shall be laid before the field or body of the floor. Where floor drains are provided, the</p>	
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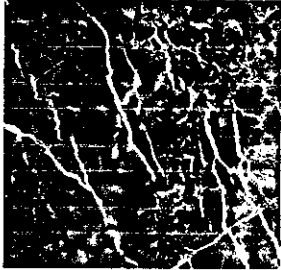
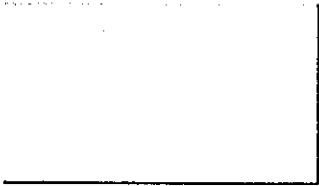

	<p>floors shall be sloped to drain properly to the drains. Intersections and returns shall be formed accurately.</p> <p>Cutting of tile, where necessary, shall be done along the outer edges of the floor. As far as practicable, no tiles of less than half size shall be used. Cutting and drilling of tiles shall be done neatly without marring the tile surfaces. The cut edges of tile against trim, bases, thresholds, pipes, built-in fixtures, and similar surfaces shall be ground and jointed carefully. Tile shall fit closely and neatly at all plumbing fixtures and around electrical outlets, pipes and fittings so that cover plates or escutcheons will overlap the tiles properly. Tiles shall be secured firmly in place and loose tiles or tiles sounding hollow shall be removed and replaced. All lines shall be kept straight, parallel, and true, and all finished surfaces brought to true and even planes. The inner edges of borders shall be kept straight and, where practicable, shall form right angles at all returns. The paper and glue shall be removed from mounted tile, without using excess water, within one hour after installing the tiles.</p> <p>Joints shall be parallel and uniform in width, plumb, level and in alignment. End joints in broken-joint work shall be made as far as practicable, on the center lines of adjoining tiles. Except in special arrangement and design, as indicated or specified, square tiles shall be set with straight joints, and oblong tiles shall be set with broken joints.</p> <p>Joint widths shall be uniform and spaced to accommodate the tile in the given spaces with a minimum of cutting. Tiles shall be wetted, if they have become dry, before applying grout. Joints 3.2 mm or less in width shall be grouted with a neat Portland cement grout of the consistency of thick cream. Other joints shall be pointed with mortar consisting of one part Portland cement and two parts pointing sand.</p> <p>The grout or mortar for joints on floors shall be white Portland cement or as specified by the</p>	
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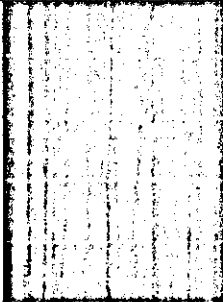
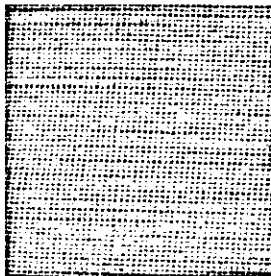
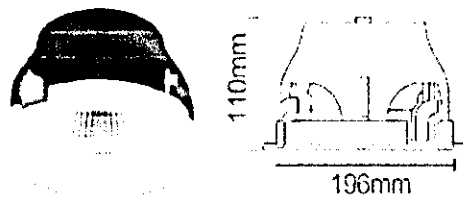
	<p>Engineer. Grout painting mortar shall be forced into joints by using trowel, brush or finger application. Before the grout or mortar sets, the joints of cushion edge tile shall be struck or tooled to the depth of the cushion, filling all skips or gaps, and the joints of square edged tiles shall be filled completely flush with their surface. Dark cement shall not be seen through grouted white joints.</p> <p>All surplus mortar or grout shall be removed before it has set or hardened.</p> <p>d. Cleaning and Curing</p> <p>Floors shall be covered with waterproofed paper with all joints lapped at least 96 mm and allowed to damp cure for at least 72 hours before foot traffic is permitted thereon.</p> <p>All completed tile work shall be thoroughly sponged and washed diagonally across joints, and finally polished with clean, dry cloth. Acid cleaning of unglazed tile, when necessary, shall not be done within ten days after setting the tile. All metal shall be covered with approved grease and the tile shall be wetted with clean water, before tile is cleaned with 10% muriatic acid solution. After acid cleaning, the tile shall be flushed with clean water, and the grease coating on metal shall be removed.</p> <p>Finished tile floors shall be covered with clean building paper before foot traffic is permitted on them. Board walkways shall be placed on floors that are to be continuously used as passage ways by workmen. Thresholds shall be covered with boards. Tiles vertical outside corners (external angles) shall be protected with board corners strips in areas used as passage by workmen.</p>	
	<p>3.07 Ceiling</p> <ul style="list-style-type: none"> - Gypsum board ceiling to be painted - Elastomeric paint Off White finish 	

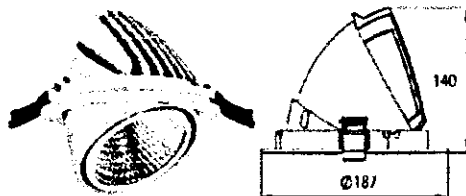
	Location shown in the plan.	
	Painting Works a. Surface Preparation <p>Allow new masonry to dry for 14 days (for exterior surfaces) to 28 days (for interior surfaces) under normal conditions before painting. Surface to be painted should be clean and dry, free from oil, grease, dirt, dust, contaminants, and all loose grit and mortar.</p>	
	3.08 Reception Counter <p>Use 19mm Hang Grey Marble and Paloma Quartz for the counter or approved equivalent. Design, details and location are shown in the plan.</p>	
	3.09 Vertical Lattice <p>Use 45mm X 100mm Aluminum tubular section wood grain powder coated finish for the vertical lattice design. Design and details are shown in the plan.</p>	
	3.10 PPA Logo <p>For PPA Logo use cut out 37.5mm thick Satin Stainless Steel. Design and details are shown in the plan.</p>	
	3.11 Doors <p>D-1 - Existing Glass Door for relocation (W 2100mm x H 2600mm)</p> <p>ND-1 - 6mm thick Tempered Glass with powder coated aluminum frame (W 800mm x H 600m)</p>	
	3.12 Windows <p>W-1 - 12mm thick tempered glass fixed window with top and bottom aluminum U- channel (W 2532mm x H 2500mm)</p> <p>W-2 -12mm thick tempered glass fixed window with top and bottom aluminum U- channel (W 2543mm x H 2500mm)</p>	

	W-3 - Existing Glass for relocation (W 2760mm x H 2600mm)	
	Outline Specifications:	
	FF – 1 Description: 1000 x 1000 polished porcelain  GPS02 Pheobe Polished	
	FF – 2 Description: 1000 x 1000 polished porcelain  Smoked Gray Matte	
	WF – 1 Description: 600 x 1200  G1PO1 Borgogna White LP	
	Description: Large Tile & Stone Mortar	


	 <p>Tile Adhesive</p> <p>Large Tile and Stone Mortar</p>	
	<p>CF – 1</p> <p>Description: 12mm thk regular gypsum board, paint finish</p> 	
	<p>P – 1</p> <p>Description: 100mm Expanded Polystyrene Panel (EPS)</p>  <p>EPS Wall (Opt. 1)</p>	
	<p>P – 1</p> <p>Description: 100mm CHB wall with lintel beams and stiffener columns</p>	

	EPS Wall (Opt. 2)	
	<p>Description: Hang Grey Marble</p>  <p>Marble for Counter</p>	
	<p>Description: Paloma Quartz</p>  <p>Paloma</p> <p>Quartz for Counter</p>	
	<p>Description: 37.5 x 100 mm. aluminum tubular section, powdercoat finish</p> <p>Powdercoat color: Republic powdercoat – wood grain finish</p>  <p>Lattice Color</p>	
	Description: Walnut recon wood veneer on MDF backing	

	 <p>Wood Veneer for Portal</p>	
	<p>Description: Pattern 1118 Graph 03WH</p>  <p>Upholstered Wall</p>	
	<p>Description: German leatherette</p> <p>Seat Cushion</p>	
	<p>DL – 1 Pinlight</p> <p>Description: 150mm dia. pinlight</p>  <p>Electrical specifications:</p> <p>Input: 220-240 V</p> <p>Power: 18W</p> <p>Current: 500mA</p>	

	<p>Mechanical specifications:</p> <p>Aluminum housing and heatsink Clear glass diffuser Ø 187mm H 140mm</p> <p>Lamp: Lumen 2590 CCT 5000K</p>	
	<p>DL – 2 Pinlight</p> <p>Description: Directional pinlight</p>  <p>Electrical specifications:</p> <p>Input: 220-240 V Power: 18W Current: 500mA</p> <p>Mechanical specifications:</p> <p>Aluminum housing and heatsink Clear glass diffuser Ø 187mm H 140mm</p> <p>Lamp: Lumen 2590 CCT 5000K</p>	

LED strip light

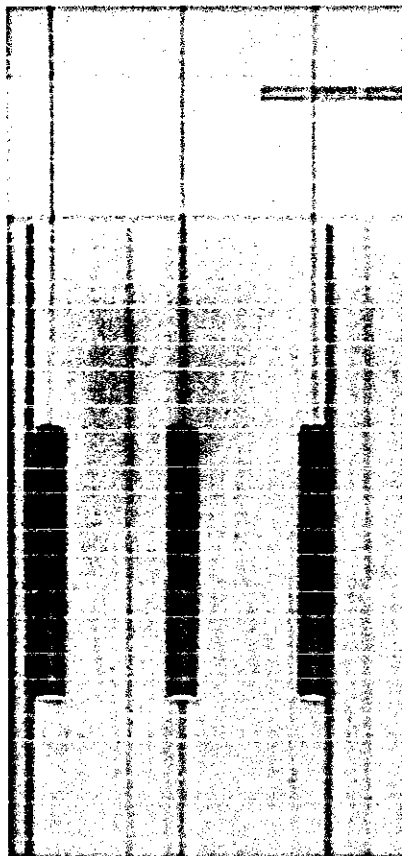
Item	Picture	Descriptions	Color	Warranty	IP Rating	
FC3528-60XX		LED: SMD 3528 60LEDs/m CRI>80 Lumens: 670lm/led PCB white 8mm PCB, double side Power: 4.8w/m Voltage: DC12V DC24V Packing: 5m roll, 3M tape on the back ETL, CETL approved	WW/CW R/G/B	2 Year	IP20	
Item No.	Input Voltage	Output Voltage	Output Current	Output Power	Size(mm)	
BE-12025W	AC90-130V Or 170-250V	DC12V±0.5V	1.65A	20W	85*58*33	

MANULIFE MFG. INC.
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Stiplight

Pendant Light



C. PAINTING

General

	<p>General Requirements contain provisions and requirements essential to these Specifications; and apply to this section, whether or not referred to herein.</p>	
	<p>Scope of Work</p> <p>This Section covers the surface preparation, coating materials and application of coatings systems required for the Works.</p> <p>The work shall consist of furnishing of all labor, materials, equipment and other incidentals necessary for the supply of painting materials and the complete painting of surfaces as shown on the drawings in accordance with this Specification and as directed by the Engineer.</p> <p>The term paint as hereinafter used includes emulsion paints, varnishes, oils, pigments, thinner and dryers.</p> <p>All exposed metal surfaces, except metal surfaces embedded in concrete, shall be painted unless otherwise specified.</p>	
	<p>Standard</p> <p>The following publications listed below, but referred to thereafter by basic designation only, forms a part of these Specifications to the extent indicated by the reference thereto:</p> <p>Steel Structures Painting Council (SSPC) U.S. Specification JIS K 5628 Red-lead Zinc Chromate Anti-Corrosive Paint.</p>	
	<p>Submittal</p> <ol style="list-style-type: none"> 1. The Contractor shall submit work method statements with lists of materials to the Engineer for approval twenty eight days before the starting of works. This statement shall include following items: <ol style="list-style-type: none"> a. Type of paint and manufacturer b. Manufacturer's specifications c. Storage and delivery of materials d. Surface preparation e. Finish painting and drying f. Touch-up painting, if any g. Equipment 2. The Contractor, before placing order for the 	

	<p>painting materials, shall submit to the Engineer for approval samples of materials. No placing of orders for material shall be made without his approval.</p>	
	<p>Storage and Delivery</p> <ol style="list-style-type: none"> 1. The Contractor shall deliver all material to the site in the original labeled sealed cans and containers, with labels intact and seal unbroken. <ol style="list-style-type: none"> a. Seals shall remain unbroken until after inspection and acceptance of material by the Engineer. b. The Contractor shall deliver materials in ample quantities sufficiently in advance of the need to avoid any delay or interruptions in the works. 2. Paint in thinner shall be stored in accordance with the approved manufacturer's instructions. <ol style="list-style-type: none"> a. All regulations required for storage of paint shall be observed and all necessary safety signs required by governing codes shall be posted. b. Any damage caused by failure to exercise proper precautions in paint storage shall be repaired. 	
	<p>Material Requirements</p> <p>Paint</p> <p>Paints for the protective coating system shall be the product of a manufacturer approved by the Engineer.</p> <p>Paints for exterior finish must be with tile like durability and elegance, fast drying, solvent based acrylic, highly suitable for coastal or polluted areas with excellent anti-fungus properties and alkali resistance.</p> <p>100% Acrylic, water based, quick-drying, easy to clean-up and environmentally friendly, resist dirt, stains, alkali, water, humidity, algae, mold and mildew growth and highly durable paint for interior finish.</p> <p>An all-purpose synthetic quick dry paint for all types of wood and metal surfaces. It has high gloss, good color retention and outstanding durability.</p> <p>For pipes, valves and equipment, galvanized and ungalvanized ferrous metal, use a 100% acrylic gloss paint,</p>	

	has excellent resistance to ultraviolet rays and resists chalking, cracking and color fading, dries fast and environmentally friendly.																																															
Schedule of Painting																																																
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	Second & Third Coats	Lacquer Sanding Sealer	
	Fourth & Fifth Coats	Clear Gloss Lacquer	
	c. Non – Architectural Items (Piping, valves, equipment, etc.)		
	1. Piping, valves, equipment etc. in rooms are to be painted		
	2. Galvanized pipes and ducts		
	Primer – one coat	Red Oxide Primer, Quick Dry Enamel	
	Finish – one coat		
	3. Black steel pipes		
	Primer – one coat	Red Oxide Primer, Quick Dry Enamel	
	Finish – one coat		
	4. Mechanical Items		
	a. Ungalvanized ferrous metal Primer – one coat	Red Oxide Primer, Quick Dry Enamel	
	Finish – one coat		
	b. Galvanized ferrous metal Primer – one coat	Red Oxide Primer, Quick Dry Enamel	
	Finish – one coat		
	c. Submerged galvanized ferrous metal Primer – one coat	Red Oxide Primer,	
	d. Buried miscellaneous ferrous surface valves, & flanged joints (excl. pipe) Primer – one coat	Red Oxide Primer,	
	Execution		
	Surface Preparation of Steel		
	4. Steel surfaces shall be cleaned as follows:		
	a. All round welds, burrs and sharp surface projections shall be ground smooth and all weld		

	<p>approved by the Engineer.</p> <p>2. Parts of timber to be enclosed in walls shall always be primed unless already impregnated. Priming shall be brushed on and a minimum of two coats applied to end grain. When the priming paint is hard, all cracks, holds, open joints, etc. shall be made good with hard stopping and rubbed down with fine abrasive paper. Priming of joinery shall be applied only on site after the Engineer has approved such joinery and before it is fixed. For internal surfaces primer coats shall be carefully flattened.</p>	
	<p>Surface Preparation of Concrete and Plaster</p> <p>Concrete and cement plaster surfaces to be painted shall be prepared by removing efflorescence, dust, dirt, grease, oil, asphalt, tar, excessive mortar and mortar dropping and by roughening to remove glaze. A zinc sulfate solution shall be applied before prime coat.</p>	
	<p>Surface Preparation for Fiber Cement Surfaces</p> <p>Shall be dry and clean prior to application of the specified first-coat material. Oil, grease, or rust stains shall be carefully removed by the use of suitable solvent. Wire brushing will not be permitted. After the first coat has become dry and prior to application of finish coats, touch-up coats shall be applied to suction spots.</p>	
	<p>Aluminum Frames for Doors and Windows</p> <p>All metal surfaces shall undergo pre-treatment process which includes: desmutting, water-rinsing, degreasing/etching, water rinsing, zinc phosphating, water rinsing and acid rinsing.</p> <p>Powder coating application, shall be factory applied and shall be done in one operation using an electro-static powder gun. The materials to be coated should be well connected to earth. Coating thickness should be kept to a minimum of 60 microns for exposed areas. On details which are to be treated mechanically after coating (drilling, sawing, etc.), the coating film must not exceed 100 microns.</p> <p>The powder coating shall be oven cured in the range of 20 minutes at 220° C (metal temperature measured on the area with greatest metal thickness). The temperature variation in the oven should not exceed +/- 10° C.</p>	

	<p>splatter shall be removed prior to blast cleaning.</p> <ul style="list-style-type: none"> b. Sand abrasives, if used, shall be clean, and free from salt and extraneous matter. The sand shall pass through a 2.0mm test sieve, and be substantially retained on a 0.18mm test sieve, with at least 25 percent retained on a 0.355mm test sieve. c. Metallic abrasive, if used, shall be sharp, hard and free from dust, and shall pass through a 1.8 mm test sieve. d. Blast cleaning operations shall not be conducted on surfaces that will be wet after blasting and before coating, or when the surfaces are less than 10°C above degree points, or when the relative humidity of the air is greater than 95 percent. e. Any oil, grease, soil, dust or other foreign matter deposited on the cleaned surfaces shall be removed prior to painting. In the event that rusting occurs after completion of the surface preparation, the surfaces shall be cleaned again in accordance with the specified method. f. Particular care shall be taken to prevent the contamination of other corrosive chemicals before the application of the paint. Such contamination shall be removed from the cleaned surface by flash blasting and the paint applied immediately. g. Care shall be taken to prevent contamination of cleaned and painted surfaces by cleaning operations in an adjacent area. h. Surfaces not to be painted shall be suitably protected from the effects of cleaning and painting operations. 	
	Surface Preparation of Wood	
	<ol style="list-style-type: none"> 1. Wood surfaces shall be sanded to a fresh surface. Surface mould where present, shall be removed by washing, rubbing down and burning off as necessary. Resinous exudation and large knots shall be removed and replaced with filler or other materials 	

	<p>Handling</p> <p>Coated items should be cooled to no less than 40° Centigrade before handling. Precautions should be taken to avoid damages on the finished coating during stacking, storing and transportation.</p>	
	<p>Storage and Delivery</p> <p>Inspect materials delivered to the site for damage. Unload and store with minimum handling. Provide storage space in dry location with adequate ventilation, free from dust or water and easily accessible for inspection and handling. Store materials neatly on the floor, properly stacked on non-absorptive strips or wood platforms. Protect finished surfaces during shipping and handling using manufacturer's standard method.</p>	
	<p>Wood Repair</p> <p>Badly decayed areas shall be removed and repaired. Areas and pieces decayed beyond repair shall be replaced with new pieces that match originals in all respects. Moderately decayed areas, weathered, or gouged wood shall be patched with approved patching compounds, and shall be sanded smooth. The source or cause of wood decay shall be identified and corrected prior to application of patching materials. Wet wood shall be completely dried to a moisture content not exceeding 12 percent, as measured by a moisture meter, to its full depth before patching, unless otherwise authorized. Wood that is to be patched shall be clean of dust, grease, and loose paint.</p> <p>1. Epoxy Wood Repair</p> <p>Epoxy wood repair materials shall be applied in accordance with manufacturer's written instructions. Health and safety instructions shall be followed in accordance with the manufacturer's instructions. Clean mixing equipment shall be used to avoid contamination. Mix and proportions shall be as directed by the manufacturer. Batches shall be only large enough to complete the specific job intended. Patching materials shall be completely cured before painting or reinstallation of patched pieces.</p> <p>2. Epoxy Consolidant and Epoxy Paste</p>	

	<p>Epoxy liquid wood consolidant shall be used:</p> <ol style="list-style-type: none"> 1. To penetrate and impregnate deteriorated wood sections in order to reinforce wood fibers that have become softened or absorbent. 2. As a primer for areas that are to receive epoxy paste filler. Epoxy paste shall be used to fill areas where portions of wood are missing such as holes, cracks, gaps, gouges, and other voids. 	
	<p>Mixing and Thinning</p> <p>Mixing and thinning of paint shall be done in accordance with the approved manufacturer's printed instructions. The pot life of each paint as stated by the manufacturer shall not be exceeded.</p>	
	<p>Weather Condition</p> <p>The paint shall not be applied when the relative humidity is above 85 percent. The paint shall not be applied in rain, wind, fog, dust or mist.</p>	
	<p>Application</p> <p>Workmanship shall be first class in every respect. All work shall be done in a workmanship manner so that the finished surfaces shall be free from runs, chop, ridges, waves, laps and unnecessary brush marks. All coats shall be applied in such manner as to produce an even film of uniform thickness. Edges, corners, crevices, welds and rivets shall receive special attention to ensure that they receive an adequate thickness of paint.</p> <p>All painting shall be done by thoroughly experienced workmen.</p> <p>Safety regulations shall be adhered to at all times, including the wearing of respirators by persons engaged on assisting in spray painting. Adjacent areas and installation shall be protected by the use of cloths or other approved precautionary measures.</p> <p>Plain enamel and varnish shall be applied carefully with good clean brushes or approved spraying equipment, except that the initial coat on any surface shall be applied with brush. Sufficient time shall be allowed between coats to assure thorough drying and each coat shall be in</p>	

<p>proper condition before receiving the next coat.</p> <p>Sanding and dusting as required shall be performed between coats in varnishing work. Finish coat shall be smooth and free from runs, sags, and other defects. Exterior paint shall not be applied during rainy days.</p> <p>All paint when applied shall provide a satisfactory film and smooth, even surface. Paint shall be thoroughly stirred and kept at a uniform consistency during application. Powdered metallic pigments added at the time of use shall be mixed by adding the powder in small increments to about one-third of the base paint or vehicle, with thorough mixing to obtain a smooth paste. The remainder of the base paint shall then be thoroughly stirred in.</p> <p>Different brands of emulsion paints shall not be mixed prior to application of the materials.</p> <p>Where necessary to suit conditions of surface temperature, weather and method of application, the package paint may be thinned immediately prior to application in accordance with the approved manufacturer's directions, but not in excess of 125 cc of suitable thinner per liter (one pint per gallon). Before using, the paint shall be mixed to a uniform consistency and shall be stirred frequently during application.</p> <p>Paints other than water-thinned paints shall be applied only to surfaces which are completely free of moisture as determined by sight or touch and only such combinations of humidity to be painted as will cause evaporation rather than condensation.</p> <p>Surfaces which have been cleaned, pretreated and/or otherwise been prepared for painting shall be primed or painted with one coat of finish paint as soon as practicable after such preparation has been completed, but in any event prior to any deterioration of the prepared surfaces.</p> <p>The first coat of paint on all exterior surfaces shall be applied by brush. Interior prime coats and all other subsequent coats on either exterior or interior surfaces may be applied by brush or spray. Whenever spraying is permitted all areas inaccessible to spray painting shall be coated by brushing or other suitable means. Brushes to be used for application of water-emulsions shall be soaked in water for a period of 2 hours prior to use.</p>	
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	<p>All cloths and cotton waste which might constitute a fire hazard shall be placed in closed metal containers or destroyed at the end of each day.</p> <p>Upon completion of the work, all staging, scaffolding, and containers shall be removed from the site or destroyed in a manner approved by the Engineer. Paint spots, or stains upon adjacent surfaces shall be removed and the entire job left clean and acceptable to the Engineer.</p> <p>No smoking shall be permitted in the vicinity where painting is going on.</p>	
	<p>Touch-Up Painting</p> <p>Touch-up painting shall be done with the same paint as used for the original coat. The resulting minimum dry film shall be the same as for the original coat.</p> <p>Touch-up painting shall include cleaning and painting of field connections, welds and all damaged or defective paint and rusted areas.</p> <p>During touch-up painting, only loose, cracked, brittle or non-adherent paint shall be removed during cleaning. All exposed edges shall be feathered. Touch-up painting shall be performed in a manner which will minimize damage to sound paint. Rust spots shall be thoroughly cleaned and edges of the existing paint shall be scraped back to sound material.</p>	
	<p>Drying</p> <ol style="list-style-type: none"> 1. No primer or paint shall be forced to be dried under conditions which will cause cracking, wrinkling, blistering, formation of pores which would detrimentally affect the condition of the paint. 2. No drier shall be added to the paint unless specified in the approved manufacturer's instructions. 3. Painted surfaces shall be protected from dust, dirt, and the elements of the weather until dry to the fullest extent practicable. 4. After drying, any areas of paint damaged from any cause shall be removed, the surface again prepared and then touched-up with the same paint and to the same thickness as the undamaged areas as specified 	

	in sub-section 4.14.3.7 above.	
	Handling <ol style="list-style-type: none"> 1. Precautions shall be taken to minimize damage to paint films resulting from stacking for drying. 2. Paint which is damaged in handling shall be scraped off and touched-up with the same paint and in the same thickness as was previously applied to the damaged area at Contractor's expense. 	
	Inspection <ol style="list-style-type: none"> 1. All works and materials supplied under this Specification shall be subject to inspection by the Engineer. 2. The Contractor shall correct such works or replace such materials found defective under these Specifications at his own expense. 	
	D. CARPENTRY AND JOINERY WORKS	
	Scope of Work <p>The work shall consist of furnishing all tools, labor, equipment and materials, unless otherwise specified to complete all carpentry and joinery works shown on the Drawings and specified herein.</p>	
	General Requirements <ol style="list-style-type: none"> a. Lumber Grades <p>Lumber shall be of the best grade available, of the respective kinds required for the various parts of work; well seasoned, thoroughly dry and free from loose or unsound knots, sap, shakes or other imperfections impairing its strengths, durability and appearance. All exposed woodwork shall be smooth by dressed and sandpapered unless otherwise indicated or specified. Framing lumber shall be of the rough dimensions unless otherwise shown on the drawings.</p> b. Substitution of Lumber <p>Any lumber equally good for the purpose intended maybe substituted for the kind specified, subject to prior written approval of the Engineer. Provided, however, that in the substitution of the cheaper kind</p> 	

	<p>of lumber than that specified, a reduction in the contract price equal to the difference in the costs of the two kinds of lumber shall be made.</p> <p>c. Delivery and Storage</p> <p>The Contractor shall deliver lumber to the site in undamaged condition. Lumber shall be stacked in such a manner as to insure proper ventilation and drainage, and shall be supported at least 150 mm above-ground. Lumber shall be protected against dampness before and after delivery, and enough protection under cover in well ventilated enclosure, not exposed to extreme changes of temperature and humidity; and in a manner as to provide air-circulation around all surfaces of each pile to insure thorough air-seasoning. Lumber or millwork in buildings shall not be finished until concrete, masonry work and plaster are dry. Lumber shall be delivered at least thirty (30) days before use.</p> <p>d. Grading of Plywood</p> <p>Each sheet of plywood shall bear the mark identifying the plywood as to wood species, glue type and grade.</p>					
	<p>Materials</p> <p>a. Lumber</p> <p>Lumber for various uses shall be one of the species listed for the purpose indicated unless otherwise specified in the drawing. For any use not specified, the lumber shall be the best commercial grade normally used for the purpose, subject to the approval of the Engineer.</p> <p>All framings shall be done as far as possible with carefully fitted mortise and tenon joints.</p> <p>All doors, or other opening where so indicated on plans, shall have frames and sills of the dimensions shown or as hereafter detailed, and all frames coming in contact with concrete shall be anchored by means of 20-d nails, spaced not more than 0.20m, apart, all around the contract surfaces. All frames shall be rabbetted , molded and cut with saw and cut under for water drips.</p> <table><tr><td>SPECIE</td><td>U S E</td></tr><tr><td></td><td></td></tr></table>	SPECIE	U S E			
SPECIE	U S E					

	Yakal	All door jambs, headers and transom bars, wood plates and all other woodwork in contact with concrete or masonry and where indicated.
	Apitong (pressure treated)	All truss members and rafters and where indicated; all wood framings and carpentry, except when in contact with concrete.
	Tanguile (Kiln dried)	All exterior and interior mill work, siding, finish and trim, frame work and all other wood works not specifically mentioned; except when in contact with concrete.
	<p>b. Plywood</p> <p>Plywood shall conform to Commercial Standard PSI and shall be of local manufacture.</p> <p>Plywood to be varnished shall be tanguile or kalantas veneers (as indicated), ribbon grained, water resistant, Class B and of the thickness indicated.</p> <p>Plywood to be painted shall be tanguile veneer ordinary rotary-cut, water resistant, Class C and of thickness indicated.</p> <p>Plywood exposed to the outside elements or where indicated shall be waterproof or marine plywood and of the thickness indicated.</p> <p>c. Fastenings</p> <p>Fastenings shall be common nails, glue or specified, flat-head wood screws (F.H.W.S.), rough-head wood screws (R.H.W.S.), bolts or lag screws where specified or called for shall be used. Conceal fastenings as much as possible; where not possible, locate them in inconspicuous places, where nailing is permitted through woodwork smooth-finished face, conceal nail heads.</p> <p>1. Nails</p> <p>Shall be of the smooth shank, zinc coated, common wire nails of local manufacture, and of types and sizes best suited for the purpose.</p>	

	<p>2. Wood Screws</p> <p>Shall be brass or cadmium plated of the best available commercial quality, and of types and sizes suited for the purpose.</p>	
	<p>Pressure Treated Lumber</p> <p>a. Preservative Treatment</p> <p>All lumber indicated to be pressure treated, shall contain any of the following net retention of solid preservative.</p> <p>a. Boliden Salts - 45.5 kg. dry chemical per cubic foot of wood</p> <p>b. Wolman Salts - 0.31 kg. dry chemical per cubic foot of wood</p> <p>c. Tenalith Salts - 0.34 kg. dry chemical per cubic foot of wood</p> <p>The Contractor shall submit an affidavit signed by an official of the preservative treatment company to the Engineer. This affidavit shall indicate the net retention of solid preservatives obtained and shall certify that pressure treated lumbars have a moisture content that does not exceed 17 percent upon shipment from the treatment plant.</p> <p>Where it is necessary to cut or bore pressure-treated lumber on the job, two coats of prepared concentrated preservatives solution shall be applied to the end-cut or bored surfaces.</p>	
	<p>Rough Carpentry</p> <p>All work shall be well fitted, accurately set, and rigidly secured in place. Anchors and bolts (with nuts and washers) straps and tie rods shall be provided as required.</p> <p>a. Cutting and Fitting</p> <p>Cutting and fitting to accommodate other work shall be done in the required manner, and cut or damaged work shall be patched and made good.</p> <p>b. Framing and Structural</p> <p>Framing and structural lumber shall be well-seasoned, straight, square-edge stacks, and free from loose or</p>	

	<p>unsound knots, bark edges or other defects that will impair its strength.</p> <p>c. Plates for Walls and Partitions</p> <p>Plates for walls and partitions shall be of the same width as the studs and shall form continuous horizontal ties.</p> <p>Structural members shall not be cut, bored or notched for the passage of pipes or conduits without prior approval of the Engineer. All members damaged by such cutting or boring shall be reinforced by means of specially formed and approved sheet metal or steel shapes or remove or replaced with new member as directed.</p> <p>Anchors, connectors and fastenings not indicated or specified otherwise shall be of the size and types necessary to suit the conditions encountered. Size, type and spacing of nails, screws or bolts for installation of manufactured building materials shall be as recommended by the product manufacturer unless indicated or specified otherwise.</p> <p>Rough hardware, exposed to weather or in contact with exterior walls or masonry or slabs shall be zinc-coated except as specified otherwise.</p> <p>All lumber surfaces in contact with concrete or masonry shall be given a brush coat of bituminous paint before installation.</p>	
	<p>Joinery Work</p> <p>All lumber used for the joinery work shall be of the kinds and grades specified and shall be of the contours, patterns and profiles indicated.</p> <p>All joints shall be made, installed tight and securely fastened in a manner approved by the Engineer. Exterior joints shall be mitered and interior angles coped. Panels shall be fitted to allow for shrinkage, avoid swelling, and insure that the work remain in place without warping, splitting and opening of joints.</p> <p>Interior trims shall be approved standard stock moldings, except where special patterns or profiles are indicated.</p> <p>Joints for cabinet work shall be glued in addition to nails or other fastening device required. Nailing shall be</p>	

	<p>concealed where practicable. Where face nailing is used, nails shall be set for putty stopping.</p> <p>All exposed surfaces shall be machined or hand sanded finished to an even smooth surface. No hammer marks or other unsightly marks shall be allowed on any wood panel or veneer.</p>	
	E. ELECTRO-MECHANICAL WORKS	
	<p>Scope of Work</p> <p>a) The work to be done shall consist of supply, deliver and install electro / mechanical materials completed in accordance with all the details of the electrical and mechanical plans as shown on the drawing. It includes materials, labor, tools and equipment and all incidental works as found necessary.</p> <p>b) Refer to electro / mechanical plans for location and extent of work involved.</p>	
	<p>General Requirement</p> <p>a) All works shall be done in accordance with the requirements of the publications and agencies having jurisdiction, as well as the requirements of the approved standards.</p> <ol style="list-style-type: none"> 1. National Fire Protection Association - (NFPA) 2. National Electrical Manufacturer Association - (NEMA) 3. Underwriter Laboratories, Inc. - (UL) 4. Philippine Electrical Code Part 1 (2017) - (PEC) Philippine National Standard - (PNS) 5. Federation Specification: Circuit Breaker, Molded Case, Branch Circuit and Service 6. American National Standard Institute - (ANSI) 7. American Society for Testing and Materials - (ASTM) 8. Illuminating Engineering Society - (IES) 9. Light Emitting Diode - (LED) <p>b) The electrical power shall be connected to the nearest existing supply of PPA electrical room. The Contractor shall coordinate the exact route of wires and cables to the assigned Engineer. The required supply of 230 volt, three (3Ø) phase, 3 wire + grounding, 60 hertz, A.C.</p>	

	<ul style="list-style-type: none"> c) The Contractor shall employ a licensed Registered Electrical Engineer or Master electrician to perform or supervise the conduct of continuous inspection of all electrical work. d) The Contractor shall first obtain approval from the Authority before procurement, or delivery of electrical materials to the site. e) The materials and equipment to be furnished shall be standard products of reputable manufacturer engaged in the reproduction of such materials and equipment. f) All permits and electrical fees required for this work shall be obtained at the expense of the Contractor. The Contractor shall furnish the Engineer-in-Charge, the final Certificates of Inspections and approval from the authorities after the completion of work. The Contractor shall prepare all as- built plans and all other paper works as required by the enforcing authorities. 	
	<p>Material Requirement</p> <ul style="list-style-type: none"> a) All electro /mechanical works, and equipment under by this Contract shall be furnished and installed by the Contractor. b) All materials and equipment to be supplied shall be as shown in the drawings and shall be in accordance with the requirements of these specifications which shall apply to manufacturing, testing and supply of same materials and equipment. c) All electro / mechanical materials whether specifically described or not shall be of the best grade and all workmanship shall be of first class in every aspect. d) All electro /mechanical equipment and materials supplied shall be suitable in every aspect for operation in a hot tropical climate near the sea and suitable for operation at ambient temperature up to 40° C. e) Any materials and equipment found not meeting the requirements of relevant standards, or of these specifications shall be rejected by the Engineer. f) All electro / mechanical materials used in this Contract shall meet the requirements described in the 	

	electrical plans, or otherwise approved by the Engineer and shall comply with the approved standard.	
	<p>Wiring Method</p> <ul style="list-style-type: none"> a) Wiring in IMC conduits, shall be employed. Detailed installation requirements recommended by the latest edition of the Philippine Electrical Code (PEC). b) Conduits shall be continuous from outlet to outlet to panel junction or full boxes and shall enter and be secured to all boxes from point of service to all outlet terminals. c) Branch circuits shall be installed as shown in the plans. d) Outlet shall be located approximately as shown in the plans and shall be properly positioned where located in the panel work or other special interior finish. e) The duplex convenience outlet and other several outlets, special purpose outlet, etc., shall be installed as shown in the plans. f) The switches shall be of the flush /tumbler type. It shall be installed as shown in the plans. Switches denotes the no. of gang. g) Wires and cables, the material to be furnished and installed shall be of copper wire Heat Resistant Thermoplastic Type "THHN". All conductors shall be rated 600 volts insulation and shall be standard for all sizes. h) Lighting fixtures and accessories shall be installed as illustrated in the plans. i) Panel board, shall be of the ratings and configurations as shown in the drawings. j) Air conditioning system, Ceiling Cassette type acu with inverter has a 4-way air distribution with auto sweep, it can cool an adjacent room using of the 4 way air flow outlets. The fresh air intake device and additional outlet grill can condition the air in an adjoining room using one of its 4 ways airflow side. Ceiling cassette air condition shall furnish and installed including accessories as shown in the drawings. 	

	<p>k) Kitchen exhaust fan / auxiliary fan shall be installed as shown in the plans</p> <p>l) The auxiliary system like, telephone, smoke detector etc., shall be installed as shown in the plans.</p>	
	<p>Execution</p> <p>a) The Contractor shall furnish and install electro/mechanical works as shown in the drawings. A licensed Registered Electrical Engineer or Master Electrician is required to implement the installation of the electrical system.</p> <p>b) Electrical installation shall conform to the requirements of Philippine Electrical Code (PEC) and the other approved standards.</p> <p>c) The contractor shall install all electrical works with the supervision of the qualified Registered Electrical Engineer (REE) or Master Electrician. All electro/mechanical works installation/ applications regardless of capacity and voltage whether new, addition or revision shall be accompanied by electrical plans signed and sealed by a duly licensed Professional Electrical Engineer (PEE).</p>	
	<p>Workmanship</p> <p>The work throughout shall be executed in the best and most thorough manner under the direction of and at the satisfaction of the Registered Electrical Engineer or Master Electrician, who will interpret the intent meaning of the drawings and specification and shall have the power to reject any work and materials which in his judgement, are not in full accordance therewith.</p>	
	<p>Testing Operations</p> <p>When the electro / mechanical installation is completed, the Contractor shall test the installed electrical materials and equipment in the presence of Registered Electrical Engineer or Master Electrician. The system shall be free from any defects, shorts or grounds. The Contractor at no extra cost shall furnish all necessary instruments and personnel required for the testing to the Authority.</p>	
	<p>Guarantee</p> <p>Upon completion and before final acceptance of the work, the Contractor shall furnish the Engineer a written</p>	

	<p>guarantee stating that all works executed are free from defects on materials and workmanship. The guarantee shall be for a period of one year from the date of the final acceptance. Any work that becomes defective during the said period shall be corrected / replaced by the Contractor at his own expense in a manner satisfactory to the Authority.</p>	
	<p>As-Built Drawings</p> <p>Upon completion and before final acceptance of work, the Contractor shall prepare, at his own expense, submit to the Engineer as-built drawings incorporating all approved changes, omissions and/or addition to the contract drawings, six (6) printed copies of as-built drawings together with their reproducible originals at no extra cost to the Authority.</p>	
	<p>F. SUPPLY, RELOCATION AND INSTALLATION OF HEAD SPRINKLER</p>	
	<p>General</p> <p>This Item shall consist of furnishing, relocation and installation of sprinkler head including testing, commissioning, provisions for new accessories and replacement of broken parts.</p> <p>The works shall be conducted in accordance to the specifications, codes and requirements of the following:</p> <ol style="list-style-type: none"> 1. Revised Fire Code of the Philippines 2. National Fire Protection Association (NFPA) 10, 13, 14 and 20 3. Ordinances of concerned city or municipality 	
	<p>Material Requirements</p> <p>All new materials shall be standard and good quality product of reputable manufacturer.</p> <p>All existing materials and accessories to be incorporated in the project shall passed with the testing and commissioning under the supervision of the Engineer.</p> <p>Defective materials shall be replaced/corrected in accordance to the requirements of this specifications and the approved quality control program.</p>	

	<p>Guarantee</p> <p>The Contractor shall guarantee that the Fire Protection system is free from all defective workmanship and materials and will remain so for a period of one (1) year from date of acceptance of the work by the Owner or the Architect. Any defect, appearing within the aforesaid period shall be remedied or replaced by the Contractor at his own expense.</p>	
	<p>Execution</p> <p>Workmanship</p> <p>The work throughout shall be executed in the best and most thorough manner to the satisfaction of the Architect and the Engineer, who will jointly interpret the meaning of the drawings and specifications and shall have the power to reject any work and materials, which in their judgement, are not in full accordance therewith.</p> <p>The Contractor shall assume unit responsibility and shall provide the services of a qualified Engineer to supervise the complete installation of equipment and systems and who shall be available for conducting the final acceptance tests.</p> <p>Preparation</p> <p>Examine all surfaces which are to support or receive parts place and subsequent construction. Notify General Contractor if any condition exists which will prevent the completion of the Work in this Section in a satisfactory manner. Application or installation of materials constitutes acceptance of the supporting and adjoining construction.</p> <p>Cleaning</p> <p>Swab-out lines and/or flush out system with fresh water until they are clean and water runs clear at all outlets.</p> <p>Acceptance Test</p> <p>All tests required in the commissioning and testing works shall be passed under the supervision of qualified Engineer or Architect. All necessary documents required in the approved quality control program shall be submitted to PPA with issued warranty.</p>	
	<p>WARRANTY</p>	

	<p>One (1) year warranty on manufacturer defects from the date of receipt of the Acceptance.</p> <p>Winning bidder shall provide free labor and replacement of parts within the said warranty period.</p> <p>Within the warranty period, the supplier shall within seventy two (72) hours from notice, replace or repair the defective goods or parts thereof at no cost to PPA.</p>	
	Compliance with the Plan/Drawings and Bill of Quantities as provided in the TOR.	