

Republic of the Philippines Office of the President

Philippine Sports Commission

PHILIPPINE BIDDING DOCUMENTS

WATERPROOFING OF ADMINISTRATION BUILDING INCLUDING RELOCATION OF OUTDOOR AIR-CONDITIONING UNITS AT RMSC, MANILA

Sixth Edition July 2020

Preface

These Philippine Bidding Documents (PBDs) for the procurement of Infrastructure Projects (hereinafter referred to also as the "Works") through Competitive Bidding have been prepared by the Government of the Philippines for use by all branches, agencies, departments, bureaus, offices, or instrumentalities of the government, including government-owned and/or -controlled corporations, government financial institutions, state universities and colleges, local government units, and autonomous regional government. The procedures and practices presented in this document have been developed through broad experience and are for mandatory use in projects that are financed in whole or in part by the Government of the Philippines or any foreign government/foreign or international financing institution in accordance with the provisions of the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

The PBDs are intended as a model for admeasurements (unit prices or unit rates in a bill of quantities) types of contracts, which are the most common in Works contracting.

The Bidding Documents shall clearly and adequately define, among others: (i) the objectives, scope, and expected outputs and/or results of the proposed contract; (ii) the eligibility requirements of Bidders; (iii) the expected contract duration; and (iv) the obligations, duties, and/or functions of the winning Bidder.

Care should be taken to check the relevance of the provisions of the PBDs against the requirements of the specific Works to be procured. If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

Moreover, each section is prepared with notes intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They shall not be included in the final documents. The following general directions should be observed when using the documents:

- a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.
- b. Specific details, such as the "*name of the Procuring Entity*" and "*address for bid submission*," should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.
- c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.
- d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

- e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.
- f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

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Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

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

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

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

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

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

GFI – Government Financial Institution.

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

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

GOP – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid



Republic of the Philippines Office of the President **Philippine Sports Commission**



Invitation to Bid for Waterproofing of Administration Building including Relocation of Outdoor Air-Conditioning Units at RMSC, Manila

- The Philippine Sports Commission, through the National Sports Development Fund (NSDF), intends to apply the sum of Four Million Five Hundred Sixty-Two Thousand Four Hundred Eighty-One Pesos and Fifty-Three Centavos (Php 4,562,481.53) being the Approved Budget for the Contract (ABC) to payments under the contract for Waterproofing of Administration Building including Relocation of Outdoor Air-Conditioning Units at RMSC, Manila. Bids received in excess of the ABC shall be automatically rejected at bid opening.
- 2. The **Philippine Sports Commission** now invites bids for the above Procurement Project. Completion of the Works is required **Seventy-Five (75) Calendar Days upon** receipt of the Notice to Proceed (NTP). Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
- 3. Bidding will be conducted through open competitive bidding procedures using nondiscretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
- 4. Interested bidders may obtain further information from **Philippine Sports Commission** and inspect the Bidding Documents at the address given below from **Mondays to Fridays, 8:00 AM to 5:00 PM**.
- 5. A complete set of Bidding Documents may be acquired by interested bidders on **March 19, 2025,** from 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 (₱5,000.00).** The Procuring Entity shall allow the bidder to present its proof of payment for the fees **in person.**
- 6. The **Philippine Sports Commission** will hold a Pre-Bid Conference on **March 27**, **2025**, **10:00 AM** at Ground Floor, Administration Building, Rizal Memorial Sports Complex, P. Ocampo Sr. St., Malate, Manila, which shall be open to prospective bidders. which shall be open to prospective bidders.
- 7. Bids must be duly received by the BAC Secretariat through **manual submission only** at the office address as indicated below, on or before **April 08, 2025, at 10:00 AM.** Late bids shall not be accepted.
- 8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 14.

- 9. Bid opening shall be in **April 08, 2025, 10:00 AM** at the given address below. Bids will be opened in the presence of the bidders' representative who choose to attend the activity.
- 10. The Philippine Sports Commission reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
- 11. For further information, please refer to:

CAROLINE S. TOBIAS

Head, Bids and Awards Committee Secretariat Philippine Sports Commission 2nd Floor, Administration Building Rizal Memorial Sports Complex P. Ocampo Sr. St., Malate, Manila <u>bac@psc.gov.ph</u> 8523-9831 local 186

www.psc.gov.ph

12. You may visit the following websites:

For downloading of Bidding Documents: <u>https://www.psc.gov.ph/index.php/about-us/procurement-bidding</u>

19 MARCH 2025

DIR. PAULO FRANCISCO C. TATAD Chairman, Bids and Awards Committee Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, Philippine Sports Commission invites Bids for the Waterproofing of Administration Building including Relocation of Outdoor Air-Conditioning Units at RMSC, Manila, with Project Identification Number PSC-BAC-005-2025.

The Procurement Project (referred to herein as "Project") is for the construction of Works, as described in Section VI (Specifications).

2. Funding Information

- 2.1. The GOP through the source of funding as indicated below for **NSDF** in the amount of **Four Million Five Hundred Sixty-Two Thousand Four Hundred Eighty-One Pesos and Fifty-Three Centavos (Php 4,562,481.53)**.
- 2.2. The source of funding is **NSDF**.

3. Bidding Requirements

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

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

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

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

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. The Bidder must have had experience of completing a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

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

- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

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

7. Subcontracts

7.1. Subcontracting is allowed on Specialty Work like Waterproofing.

8. **Pre-Bid Conference**

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and at its physical as indicated in paragraph 6 of IB.

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

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

- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. A valid special PCAB License in the case of Joint Ventures, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in Section IX. Checklist of Technical and Financial Documents.
- 11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

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

15. Bid Security

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security shall be valid until **one hundred twenty (120)** 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 nonresponsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

- 19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.
- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 15 shall be submitted for each contract (lot) separately.
- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

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

21. Signing of the Contract

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

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause			
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be:		
	 a. Waterproofing and Construction Service with Installation of Air- Conditioning Units; Waterproofing, Flooring Solutions and Installation of Drainage Systems and Coatings; Repair and Restoration of Existing Waterproofing; Procurement of Supply of Labor, Materials, Supervision and other Consumables for the Waterproofing Works; Supply, Delivery, and Installation of Outdoor 		
	Airconditioning Units; Supply, Delivery, Installation, Testing, and Commissioning of Various Airconditioning Units		
	b. Completed within six (6) years prior to the deadline for the submission and receipt of bids.		
7.1	Subcontracting is allowed on Specialty Work like Waterproofing.		
10.3	- The Contractor must have a valid PCAB license Category C with a principal classification of General Engineering.		
	- The Contractor must have a PCAB ARCC rating of Small B with License Category C & D.		
	- The Contractor must be in sound financial standing with annual turnover/gross billings of at least 50% of the ABC.		
	- The Contractor must have completed the contracts similar to the project with at least a contract value of 50% of the ABC.		
	- The Contractor must have a licensed Civil Engineer, Electrical Engineer, Mechanical Engineer, Materials Engineer, and Safety Officers.		
	- All engineers must have Five (5) years' experience in waterproofing		
	- The Company must have at least Ten (10) years of experience in waterproofing works.		
10.4	The key personnel must meet the required minimum years of experience set below:		
	KEY PERSONNEL	GENERAL EXPERIENCE	RELEVANT EXPERIENCE
	Civil Engineer	5 years	Knowledgeable in Civil works and waterproofing application
	Mechanical Engineer	5 years	Knowledgeable in Airconditioning system
	Electrical Engineer	5 years	Knowledgeable in Electrical Airconditioning system
	Safety Officer	5 years	Knowledgeable in risk assessment and safety trainings

10.5	The minimum major eq	uipment requirements are t	he following:
	Equipment	Capacity	Number of Units
	Gas Torch	20 to 100 Tank	2 units
15.1	15.1 The bid security shall be in the form of a Bid Securing Declaration, or a the following forms and amounts:		curing Declaration, or any of
	a. The amount of not less than PhP 91,249.63 [two percent (2%) of ABC], if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or		
	b. The amount of n if bid security is		8 [five percent (5%) of ABC]
19.2	No further instructions.		
20	No further instructions.		
21.1	The bidder shall submit one original and one duplicate copy of the first and second components of its Bid, both of which should be placed in one mother envelope.The minimum number of years of experience of the bidder must be at least five (5) years.		
	Envelope: 1. Certificate of	Site Inspection for RM S	ne Technical Component SC, particularly for the Chief of Sports Facilities
	 Registration cer (SEC) [Certific ByLaws], Dep proprietorship, cooperatives or Mayor's or Bus the principal pla Tax clearance approved by the The Supplier's the Supplier's "received" by the for the preceding 	ate of Incorporation, Art artment of Trade and or Cooperative Developm its equivalent Document. iness permit issued by the ace of business of the prosp per E.O. No. 398,s. 2005 Bureau of Internal Revenu audited financial statemen total and current assets a BIR or its duly accredited	nd Exchange Commission icles of Incorporation and Industry (DTI) for sole ment Authority (CDA) for city or municipality where ective bidder is located. 5, as finally reviewed and

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 effectiveness of the said amendment.

2. Sectional Completion of Works

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

3. Possession of Site

- 3.1 The Procuring Entity shall give possession of all parts of the Site to the Contractor based on the schedule of delivery indicated in the SCC, which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such a sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.
 - 3.2 If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

4. The Contractor's Obligations

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

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

5. **Performance Security**

- 5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.
- 5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

6. Site Investigation Reports

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

7. Warranty

- 7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.
- 7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in SCC.

8. Liability of the Contractor

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

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

9. Termination for Other Causes

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

10. Dayworks

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

11. Program of Work

- 11.1. The Contractor shall submit to the Procuring Entity's Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC**.
- 11.2. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC**. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

12. Instructions, Inspections and Audits

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

13. Advance Payment

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

14. Progress Payments

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

15. Operating and Maintenance Manuals

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

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

Special Conditions of Contract

GCC Clause		
2	The target number of days to complete the project is Seventy-Five (75) Calendar Days upon receipt by the contractor of the Notice to Proceed (NTP).	
4.1	The project duration covering the Waterproofing of Administration Building including Relocation of Outdoor Air-Conditioning Units at RMSC shall be for a period Seventy-Five (75) Calendar Days.	
	The CONTRACTOR shall submit a Gantt Chart of the proposed Work Plan that indicates a detailed schedule of activities to be accomplished in the following segment of the project: a. Waterproofing of Administration Building of Concrete Roof Deck	
	and Steel Roofing b. Relocation of Outdoor Air-Conditioning Units from Concrete Roof Deck to Parapet Wall	
	The coverage from mobilization to demobilization should not extend beyond the delivery dates, unless approved in writing by PSC upon the written request of the CONTRACTOR.	
6	a. The principal features of the work do not in any way limit the responsibilities of the CONTRACTOR to the general description of his/her scope of work. He/she shall perform all the work fully and make it operational to the intent of the project.	
	b. The CONTRACTOR shall be responsible for the proper execution and coordination of his/her work. He/she shall schedule and program all necessary work activities according to the specified completion period.	
	c. The CONTRACTOR shall observe the required standards of safety and procedures and that its contract and workers shall be properly insured against all risks. He/she shall provide/equip its workers with Personal Protective Equipment (PPE) during the course of construction/installation. He/she shall observe the PSC's house regulations to be issued together with the Work Permit.	
	d. The CONTRACTOR shall be responsible for securing PSC-issued work permits and compliance with other PSC rules and regulations related to the construction works. All workers/engineers working at the site are required to wear company uniforms indicating their company name.	
	e. The CONTRACTOR is not allowed to erect quarters for workers within PSC premises; sleeping is also not allowed. CONTRACTOR's workers are limited to the designated working area only. Loitering around and inside the PSC premises is not allowed.	

	f. The CONTRACTOR shall be responsible for clearing and cleaning the designated project site of unused materials, leftovers, and other debris at the site and disposal of the same outside of the PSC premises. A daily inspection of the work area shall be conducted by the CONTRACTOR and PSC or its authorized representative to ensure that the working area and storage area assigned to the CONTRACTOR are clean and in order at all times.	
	g. The CONTRACTOR shall protect adjacent areas against any damage by his/her employees, or by his/her materials, equipment, and tools during the execution of the work. Any damage done by him/her or his/her employees shall be repaired at his own expense, without additional compensation beyond the contract.	
	h. Permits, Laws, Ordinances, and Standards - the installation provided for and specified herein shall comply with laws and regulations of the local government unit and any government agency having jurisdiction. All necessary permits and other requirements shall be secured and for the account of the CONTRACTOR. Said requirements shall be turned over to PSC upon project completion.	
	i. The CONTRACTOR shall assign full-time personnel as Project-In-Charge (PIC) for the project to supervise the work mentioned herein. The PIC shall be certified and designated for the project by the CONTRACTOR. Said PIC must be the one to report on a weekly/monthly basis of the status/progress of the project as agreed during the kick-off meeting and shall be the one responsible for all coordination works with the Sports Facilities Division of PSC.	
7.2	The CONTRACTOR shall guarantee the work done to be free from defects for a period of then (10) years reckoned from acceptance of the project. The form of warranty shall be in accordance with the provisions in Section 62 of the Revised Implementing Rules and Regulations (IRR) of R.A. 9184.	
10	Dayworks are applicable at the rate shown in the Contractor's original Bid.	
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within <i>five (5)</i> days of delivery of the Notice of Award.	
11.2	In case the winning bidder fails to perform or satisfactorily deliver the project within the specified time frame agreed upon, inclusive of the allowable granted period of extensions, if any, the winning bidder shall be held liable for damages for the delay and shall pay the procuring entity liquidated damages, an amount equal to one-tenth (1/10) of one percent (1%) of the cost of the delayed project scheduled for delivery, for every day of delay until such project is finally delivered and accepted by the procuring entity concerned.	

13	 a. Payments to the CONTRACTOR will be based on the schedule of activities (in Gantt Chart) submitted actual accomplishment and/or material utilized, certified by the PSC as performed by the CONTRACTOR in accordance with the plans, specifications, and program of works/construction schedule. b. Payments in accordance with the above paragraphs shall be considered full compensation for furnishing materials, labor, tools, and equipment, and for performing all work contemplated and embraced under the CONTRACT. c. Payment shall be made (in Gantt Chart) fifteen (15) working days after the completion and issuance of inspection and acceptance report by the PSC, subject to the availability of funds. Below herewith are the following documents to be submitted by the CONTRACTOR: Letter Request for Payment; Billing Statement; Bill of Materials; and 4. Accomplishment Report. d. Payments shall be subject to taxes as provided by law.
15.1	Methodology is required to be submitted upon receipt of the Notice to Proceed (NTP).
15.2	No amount will be withheld for failing to submit "as built drawings" within the date required. However, the approved As-Build Drawings shall form part of the requirements in processing the payment.

Section VI. Specifications

OBJECTIVE

The waterproofing and relocation of outdoor units contribute to a more comfortable, healthy and aesthetically pleasing environment for occupants and visitors of the administration building.

QUALIFICATIONS

- The Contractor must have a valid PCAB license Category C with a principal classification of General Building.

- The Contractor must have a PCAB ARCC size range Small B with License category C & D.

- The Contractor must be in sound financial standing with annual turnover/gross billings of at least 50% of the ABC.

- The Contractor must have completed contract similar to the project with at least a contract value of 50% of the ABC.

- The Contractor must have a licensed Civil Engineer, Electrical Engineer, Mechanical Engineer, Materials Engineer, and Safety Officers.

- All engineers must have Five (5) years' experience in waterproofing.

- The Company must have at least Fifteen (10) years of experience in waterproofing works.

I. <u>GENERAL SPECIFICATIONS</u>

The work shall include the supply of labor, materials, tools, equipment and services necessary to complete the subject project per the approved Scope of Work, approved Construction Plans/Drawings and these Technical Specifications, which are part of the Contract of Services, Governing Codes: Republic Act No. 9184 and its Implementing Rules and Regulations, National Building Code of the Philippines (P.D. 1096), Philippine Electrical Code, Philippine Plumbing and Sanitary Code, Philippine Mechanical Code, and all related applicable local ordinances and regulations.

The Contractor shall submit, before the execution of the specified works, his schedule of work expressed in the PERT/CPM Network Diagram, indicating the computation of the contract time, all activities, their duration, and projected percentage accomplishments/cash flow, for monitoring purposes.

For all new constructions, the Contractor shall provide new materials, fabricated products, and necessary equipment and services for all works.

For all repair or replacement works, use brand-new materials, brands/models, measurements, and finishes. Major materials, products or work items, large volume or quantity items, or other expensive items that are not particularly mentioned in these specifications, shall require

submission of samples, product tests, mock-up models, and selection, or approval before their installation or application in the project.

Sub-contracting shall only be limited to specialty work items, which require the provision of special materials, methods, techniques, and equipment and are subject to the approval of the <u>Philippine Sports Commission</u>.

The contractor shall provide full-time supervision of the works.

All materials and equipment shall be delivered to the site at designated locations within the project premises.

The <u>Philippine Sports Commission</u> or its authorized representative reserves the right to reject any materials or workmanship that may be found defective or not in conformity with the approved Construction Plans/Drawings and these Technical Specifications. In case where conflicts between the Construction Plans/Drawings and the Technical Specifications arise, these should be immediately brought to the attention of the <u>Philippine Sports Commission</u> or its authorized representative for appropriate action.

All billings shall be subject to submission of a Statement of Account by the Contractor, including his percentage accomplishment report and photographs for inspection/evaluation and acceptance by the <u>Philippine Sports Commission</u>. The Contractor shall provide access to the construction areas for the convenience of the inspection team during project inspection.

Change or additional works that are necessary but were not included in the scope of work shall be subject to variation order preparation upon request and notice by the Contractor.

II. GENERAL REQUIREMENTS

a. Regulatory Requirements

- **i.** National Building Code of the Philippines
- ii. National Plumbing and Sanitary Code of the Philippines
- iii. Philippine Electrical Code
- iv. Philippine Mechanical Code
- **b.** Submittals
 - i. Construction Schedules
 - **ii.** Shop Drawings
 - iii. Product Data and Samples
 - iv. Color Swatches
 - **v.** Construction Photographs
 - vi. Permits (when necessary)
 - vii. As built drawings

III. OUTLINE TECHNICAL SPECIFICATIONS

3.1 SITE WORKS

3.1.1 SCOPE OF WORK

The Work under this Section shall include complete demolition work, clearing, cutting of steel and clean up and disposal of all debris and other objectionable matter and grading work as directed by the engineer.

3.1.2 EXECUTION

Site Preparation Steps prior to Waterproofing

- Assessment of the Area
 - Inspect the site to determine the extent of waterproofing needed.
 - Identify all areas to be treated, including walls, floors, or roofs that

require waterproofing.

• Utility Management

- Power Supply: Ensure power to the air conditioning unit is turned off. This includes shutting off circuits related to the outdoor unit.

- Water Supply: Check for any connected water supply lines that may need to be disconnected.

- Removal of the Air Conditioning Outdoor Unit
- Disconnect Wiring and Refrigerant Lines:
- Turn off the power to the AC unit.
- Disconnect the electrical wiring, ensuring no power is supplied.

- If refrigerant lines are involved, safely recover refrigerant according to local regulations (this may require professional assistance).

Removing the Unit:

- Use appropriate lifting equipment if the unit is heavy.

- Carefully detach the outdoor unit from its brackets.

- After removal, cover any gaps left on the wall to prevent water ingress during waterproofing.

• Surface Preparation

- Remove all dirt, debris, and loose materials from the surface that will be waterproofed.

- Scrub the area with a suitable cleaning agent to ensure proper adhesion of the waterproofing materials.

Damaged Repair:

- Inspect for any surface cracks, holes, or damage, and repair them using appropriate fillers or concrete patches.

• Clearing and Grubbing

Clearing, grubbing, removing, and disposing of all debris as designated in the Contract, except those objects that are designated to remain in place or are to be removed in consonance with other provisions of this Specification.

3.2 CONCRETE TOPPING AND CEMENT FINISHING

3.2.1 SCOPE OF WORK

The work to be undertaken under this section shall comprise the furnishing of all labor, materials, equipment, plant and other facilities and the satisfactory performance necessary to complete concrete topping and cement finishing to obtain a specified architectural appearance indicated on the drawings and specifications conforming to the Contract Documents provisions.

3.2.2 REFERENCES

Comply with quality assurance requirements under General Conditions of the Contract Documents and Manufacturer's instructions. Reference to the following standards as applicable:

- ASTM C150 Portland Cement
- ASTM C33 Concrete Aggregates
- ASTM C494 Chemical Admixtures for Concrete
- ASTM C40 Organic Impurities in Fine Aggregates for Concrete
- Department of Works and Highway, DPWH; Standard Specifications, Volume II, 2004

3.2.3 SUBMITTALS

• General: All submittals for approval as indicated herein shall be in accordance with the provisions under General Conditions of the Contract Documents.

- Shop Drawings: Design and prepare detailed drawings showing the forming proposed for architectural concrete surfaces.
- Product Data: Submit manufacturer's recommended installation procedures, catalog and certifications of quality compliance and test reports.

3.2.4 DELIVERY, STORAGE AND HANDLING

• Protect materials of this section before, during, and after installation.

3.2.5 MATERIALS

- Cement
 - Type I or Type II Portland cement, ASTM C150.
 - Compressive Strength: Minimum 28-day compressive strength of 4,000 psi.
 - Application Thickness: Typically ranges from 1 inch to 4 inches, depending on the specific application and structural requirements.
 - Water-Cement Ratio: Generally, a water-cement ratio of no more than 0.45 is preferable for durability.
- Aggregates
 - Clean, hard, and durable aggregates meeting ASTM C33 requirements.
- Water
 - Potable water free from impurities
- Admixtures

If used, it must comply with ASTM C494 (chemical admixtures) and should be compatible with the cement and aggregates.

• Sand

Shall be hard, sharp, well-washed, siliceous, clean, and free from deleterious materials conforming to ASTM Specifications C40

3.2.6 EXECUTION

Concrete Topping

• Surface Preparation

The existing concrete surface must be properly prepared:

- Clean and free of dust, dirt, oil, grease, and any other contaminants.
- Roughened if required to enhance bonding.

- Moistening the surface can help prevent rapid moisture loss from the topping mixture.

• Application

Concrete topping may be applied using:

- Hand placement for smaller areas.
- Mechanical means (e.g., screeding, or floating) for larger surfaces.

- Finish: Surface can be finished with a trowel, broom, or specialized tools based on the desired texture and aesthetics.

Control joints should be placed at intervals to minimize cracks, typically every 10-12 feet in each direction.

- Curing
 - Curing Method: Use curing compounds meeting ASTM C309 or water curing.
 - Curing Duration: Minimum curing time of 7 days to ensure proper hydration and strength development.
- Control Joints

Control joints should be placed at intervals to minimize cracks, typically every 10-12 feet in each direction.

- Quality Control
 - Regular testing of concrete samples for compressive strength (ASTM C39).
 - Slump tests (ASTM C143) to ensure the proper consistency of the topping mix.
 - Surface and finish inspections to ensure compliance with specified requirements.
- Environmental Conditions

Topping should not be placed when ambient temperatures are below 50°F (10°C) or above 90°F (32°C) without appropriate measures taken.

Concrete Finishing

- Thoroughly clean the concrete surface of all dirt, dust, oil patches, and other foreign matters.
- Apply the 1:2 mix cement mortar, trowelled, and level by the required slope in the plane.
- After the mortar has hardened initially, apply a scored finish by the approved sample.

3.3 PAINTING WORKS

3.3.1 SCOPE OF WORK

This section shall include all management, labor, materials, tools, equipment and services required to furnish and install paints and coatings as specified herein and shown in Drawings required to perform all works in accordance to the General conditions of the Contract Documents.

3.3.2 REFERENCES

Comply with quality assurance requirements under General conditions of the Contract Documents and Manufacturer's instructions. Reference to the following standards as applicable:

- ASTM D16-10 Standard Terminology for Paint, Related Coatings, Materials, and Applications
- ASTM D3960-05 Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings

3.3.3 SUBMITTALS

- General: All submittals for approval as indicated herein shall be in accordance with the provisions under General Conditions of the Contract Documents.
- Submit brochures or catalogs for the paint system to be used on the different surfaces to be applied for approval.

- Manufacturer's Information: Manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material.
- Mock-up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - Finish areas designated by Architect.
 - Do not proceed with the remaining work until workmanship, color, and sheen approved by the Architect.
 - Refinish the mock-up area as required to produce acceptable work.

3.3.4 DELIVERY, STORAGE AND HANDLING

- Comply with product delivery requirements under General Conditions of the Contract Documents and Manufacturer's instructions.
- Paints and paint materials shall be delivered in sealed containers that plainly show the designated name, specification number, batch number, color, date of manufacture, manufacturer's directions and name of manufacturer. Storage of paints and paint materials and the mixing of paints shall be restricted to the locations directed.
- Store materials in a dry, clean, well-ventilated area designated by the Architect for the storage of paint materials and tools. The storage space floor shall be adequately protected from damage and from paint. Paint shall be kept covered at all times and safeguarded to prevent fire.
- Protect floors and all adjacent surfaces from paint smears, spatters, and dropping use drop-cloths to protect floors. Cover fixtures and remove hardware not to be painted. Mask off areas where necessary.
- For safety precautions, the Contractor shall provide appointed storage room with an ABC fire extinguisher throughout the duration of painting work. Foregoing fire extinguisher shall not be one required elsewhere in these specifications.

3.3.5 MATERIALS

• General

Comply with Manufacturer's standard material requirements in conformity to the specifications herein.

• Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates

indicated under conditions of service and application, as demonstrated by manufacturer instructions based on testing and field experience.

- All paints, thinners, linseed oils, and varnishes to be used shall be high quality painting system, except as specified otherwise. All paints shall contain an effective amount of fungicide and mildew-proofing agent that shall prevent the paint from showing a mold growth or shall be inherently fungistatic by the nature of their constituents and shall be non-toxic to person.
- \circ The use of white zinc (lithopone) shall not be allowed.
- Acceptable Colors and Finishes: All color and finish selections shall be as specified herein and as approved by the PSC Engineer/Architect. Use neutral shades and minimal pattern as required.
- Pure water based acrylic emulsion

Shall be odorless self-priming and water-proofing Low Sheen Elastomeric Paint.

0	Туре	: 100% Acrylic
0	Finish	: Sheen
0	Color	: White, Black, and also available
		in and 82 ready-mixed colors
0	Density, K/L @ 28°C,	: 1.24 ± 0.03 K/L
0	Dry Film Thickness	: 30 microns ~ 45 microns per coat
		(approximately)
0	Drying Time	: 2 - 3 hours
0	Practical Coverage	: 20-25 m ² per 4L per coat depending on
		surface porosity
0	Packing	: 1 Liter, 4 Liters, 16 Liters
0	Shelf Life	: One year when stored in dry and
		cool conditions.

- Special Coating
 - \circ Metals

Shall be coated with high performance, two component water-based acrylic epoxy paint which has a superior chemical, solvent and stain resistance, odorless

and UV resistant finish. It has further excellent brush ability and easy water clean-up. Painting schedule shall be:

- a. Primer Red Oxide with 1 part of its curing agent.
- b. Reducer for Primer
- c. Topcoat with at least 2 coats of water-based acrylic epoxy paint.

Follow manufacturer's standard painting system, surface preparation and methodology. Submit color swatch and mock-up paint sample for PSC Engineer/Architect's approval.

- Miscellaneous for Paint
 - Masonry Neutralizer: Shall be an acid-base concrete surface neutralizer.
 - Patching Compound Powder for sealing concrete and plaster: Shall be White Decalite type.
 - Sandpaper: Shall be waterproof type.
 - Trisodium Phosphate: Shall be used for removal of dirt, fungus, grease and oil shall be from concrete and plaster.

3.3.6 EXECUTION

- Comply with Manufacturer's instructions and standard installation requirements for each type of material.
- Inspection of Surface to be Painted

The Contractor shall inspect all surfaces to be painted, and all defects shall be remedied before starting work. The commencing of work by the Contractor indicates his acceptance of the surface. No work shall be started unless the Contractor shall have made certain as to the dryness of surfaces. Tests shall be made in the presence of the PSC Engineer/Architect or his authorized representative, to verify dryness of surface to paint.

• Preparation of Metal Surfaces

Wash all metal surfaces with mineral sprints or detergents to remove any dirt or grease before applying materials. Where rust or scale is present, wire brush or sandpaper clean before painting. Treat rusty portions with Metal Etching Solution # 71 or approved equivalent. Rinse and let dry.

• Preparation of Concrete Mortar Surface

Concrete or cement mortar surfaces shall be thoroughly dried before painting and shall be cleaned by brushing off dirt or deposits of foreign materials. Porous concrete surfaces shall be treated with a synthetic emulsion clear sealer, polyvinyl chloride, or epoxy sealed as suited for the base material. Cracks and holes shall be filled with putty, polyvinyl chloride, or epoxy sealed as suited for the base material. Cracks and holes shall be filled with putty. Monolithic concrete or porous concrete surfaces shall be put with cement filler, synthetic emulsion putty, polyvinyl chloride putty, or epoxy putty and the putty scraped off to a smooth surface. Use putty that is compatible with the surface to be painted and the paint materials. When required, the surfaces shall be sanded with sandpaper # 120-180.

- Installation:
 - Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
 - Sufficient time shall be allowed between coats to ensure thorough drying, and each coat shall be in proper condition before the next coat is applied. Sanding and dusting, as required, to product finishes which are free from visible defects when viewed from a distance of 1.50m shall be performed.
 - Finish coats shall be smooth and free from runs, sags, or other defects. Each coat of paint shall be of sufficient thickness to cover completely the previous coat or surface. Exterior paint shall not be applied during rainy weather; the temperature shall be above 7°C and not over 35°C. Interior paint may be applied at any time provided the surfaces to be painted are dry and the temperature can be kept above 7°C during the application of ordinary paints, and between 18°C and 35°C during the application of enamels and varnishes.
 - Surfaces to be painted shall be thoroughly cleaned and except for cement- emulsion filler, shall be dry when the paint is applied. Interior areas shall be broom-cleaned and dust-free before and during the application of any painting materials.
 - Paint colors and finishes not specified shall be as approved. Surfaces which will be inaccessible after erection shall be treated and primed prior to erection, using two coats of the designated primer. Such inaccessible surfaces are defined as those surfaces that are concealed after erection or installation.
 - Concrete and plaster shall be repaired before painting. Dirt, fungus, grease, and oil shall be removed prior to the application of paint by washing the surfaces with a solution composed of from 2 to 8 ounces

of tri-sodium phosphate per gallon of hot water and then rinsing thoroughly with fresh water. Efflorescence shall remove from concrete and masonry surfaces by scraping, wire brushing, and washing with a 5 to 10 percent, by weight, solution of muriatic acid and then washing thoroughly with fresh water, removing all traces of the acid. The tri-sodium phosphate and muriatic acid solution shall be within the ranges specified and shall be of strength to perform their functions properly. Glaze and all loose particles and scale be removed by wire brushing.

- Putting of concrete and plaster surfaces shall be done after the priming coat has been applied and has dried properly. Sand-papering will be required prior to the second coat of paint to provide an even and smooth surface.
- Application of pure water based acrylic emulsion:

Step 1: Apply one coat of Concrete Primer & Sealer. Let it dry for two (2) hours.

Step 2: For surface imperfections such as cracks, dents, and rough edges, apply in Elastomeric Putty using putty knife. Let dry, sand and dust off. If no putty work is required, proceed to STEP 4.

Step 3: Spot prime all puttied areas with Concrete Primer & Sealer. Let dry for two (2) hours

Step 4: Finish with two coats of desired color by brush, roller or spray. Allow two (2) hours drying in between coats.

- Other surfaces for which the type of paint has not been specified herein before shall be painted as specified for surfaces having similar conditions or exposure.
- Workmanship:

Shall be the first class in every respect. Paint enamel and varnish finish shall be applied carefully with good clean brushes or approved rollers, or approved spraying equipment, except that the initial coat to be provided on any new or previously unpainted surface shall be painted brush. The work shall be so conducted as to avoid damage to other surfaces and public or private property in the area; any damage thereto shall be made good by the Contractor at his expense.

All parts of molding and ornaments shall be left clean and true to details.

• Cleaning:

After completing painting, clean glass and paint spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

- Protection:
 - Protect the work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by PSC Engineer/Architect.
 - Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.
 - After the work of other trades is complete, touch up and restore damaged or defaced painted surfaces.

3.4 METAL WORKS

3.4.1 SCOPE OF WORK

The work includes all management, labor, materials, tools, equipment and services required to furnish and install metal materials as specified herein and shown in Drawings required to perform all works in accordance with the General Conditions of the Contract Documents.

3.4.2 REFERENCES

Comply with quality assurance requirements under General Conditions of the Contract Documents and Manufacturer's instructions. Reference to the following standards as applicable:

• American Society for Testing and Materials (ASTM) Publications:

A 276 M Standard Specification for Stainless Steel Bars and Shapes

3.4.3 SUBMITTALS

- General: All submittals for approval as indicated herein shall be in accordance with the provisions under General Conditions of the Contract documents.
- Product Data: For each metal component and accessory including certifications that each complies with specified requirements.
- Shop Drawings and Sample sections are based on the actual field measurements and as per layout and details of the drawings.

Note: All Shop Drawings and Sample Sections shall be submitted prior to purchasing and installing of materials for review and approval of the PSC Engineer/Architect.

3.4.4 DELIVERY, STORAGE AND HANDLING

• Comply with product delivery requirements under General Conditions of the Contract Documents and Manufacturer's instructions.

- Deliver, store and handle all materials to prevent damage by breaking, water or moisture and contamination by foreign materials.
- Store materials on a clean, dry surface or platform, off ground, covered, separate from each other and protected from deterioration and the elements.

3.4.5 MATERIALS

• Angle bar

Shall be 50mm x 50mm with thickness of 6.0mm.

• Paint

Primers shall be provided as recommended by paint manufacturers for substrates and paints specified in the section, titled Painting.

3.4.6 EXECUTION

- Fabricate items with joints neatly fitted and properly secured.
- Pre-assemble items in shop to the greatest extent possible, minimize field splicing and assembly, disassemble units only as required for shipping and handling limitations; clearly mark for field assembly.
- Weld corners and seams continuously comply with AWS (Structural Welding Code) recommendations; grind exposed welds continuous, smooth and flush with adjacent finished surfaces, and ease exposed edges to approximate 1mm uniform radius.
- Finishes: Unless otherwise schedules, galvanize and prime paint interior work, comply with requirements of section, titled Painting for preparation and priming.
 - Thoroughly clean surfaces of rust, scale grease and foreign matter prior to applying finish.
 - Do not shop prime surfaces in contact with concrete or requiring field welding, shop prime in one coat.
- Install items square and level, accurately fitted and free from distortion or defects detrimental to appearance.
- Field bolt and weld to match standard of shop bolting and welding; hide bolts and screws whenever possible, where not hidden, use flush countersunk/ fastenings.
- Perform field welding in accordance with AWS D1.1

- After installation, touch-up field welds and scratched and damaged surfaces; use primer consistent with shop coat or recommended for galvanized surfaces, as applicable.
- Replace items damaged in course of installation and constructions.

3.5 WATERPROOFING WORKS

3.5.1 SCOPE OF WORK

The work includes all management, labor, materials, tools, equipment and services required to apply waterproofing on the entire area as specified herein and shown in Drawings required to perform all works in accordance to the General Conditions of the Contract Documents.

3.5.2 REFERENCES

Comply with quality assurance requirements under General Conditions of the Contract Documents and Manufacturer's instructions. Reference to the following standards as applicable:

- NFPA (National Fire Protection Association)
- Underwriters Laboratory, Inc. (UL): Fire Hazard Classification Rating
- BFAD Bureau of Food and Drug (Philippines)

3.5.3 SUBMITTALS

- General: All submittals for approval as indicated herein shall be in accordance to the provisions under General Conditions of the Contract Documents.
- Product Data: Provide current standard printed product literature indicating characteristics of membrane materials, flashing materials, components, accessories, product specifications and installation instructions.
- Shop Drawings: Submit plans and locations of details. Submit custom details for every condition, also showing attachment of extensions and flashings for pipes and vent stacks as applicable.
- Materials Safety and Data Sheet: Submit manufacturer's materials and safety data sheet, which describes completely the composition and information of the materials together with the health hazard data, control and protective measures and safe handling and use.
- Application Manual: Submit manufacturer's application manual, which describes completely the preparation of surfaces and application of specified materials, including details to suit all conditions.

• Test Reports: Submit product test results showing compliance to performance requirements and standards.

3.5.4 DELIVERY, STORAGE AND HANDLING

- Comply with product delivery requirements under General Conditions of the Contract Documents and Manufacturer's instructions.
- Manufactured materials shall be delivered in the original packages and containers bearing the name and brand of the manufacturer. Damaged or deteriorated materials shall be removed from the premises.
- The product should be stored in cool place out of direct sunlight. Excessive exposure to sunlight will result in the deterioration of the product and reduce its shelf life.

3.5.5 MATERIALS

• Epoxy Grout

Shall be 100% solids, rapid strength gain, pre-packaged system containing thermosetting epoxy resins, expansive additives and inert fillers. Shall meet the following typical performance criteria when cured at 73° F (23° C):

1. Compressive Strength, ASTM C 579 B*

Compressive Strength

8 Hours 8,000 psi (55.2 MPa)

1 Day 13,000 psi (89.7 MPa)

7 Days 15,000 psi (103.5 MPa)

Tested at 180° F (82°C) 11,000 psi (75.9 MPa)

Compressive Modulus

8 Hours 1.3 x 10 6 psi (0.9 x 10 4 MPa)

1 Day 1.6 x 10 6 psi (1.1 x 10 4 MPa)

7 Days 1.7 x 10 6 psi (1.2 x 10 4 MPa)

Tested at 180° F (82°C) 1.2 x 10 6 psi (0.8 x 10 4 MPa)

- 2. Height Change, ASTM C 827 90° F (32°C) Positive Expansion
- 3. Effective Bearing Area 95%
- 4. Tensile Strength, ASTM C 307 2,400 psi (16.5 MPa)
- 5. Creep, ASTM C 1181, 1 year, 600 psi (4.1 MPa), 140° F (60°C) 1.8 x 10 -3 in/in (mm/mm)
- 6. Flexural Strength, ASTM C 580 7 Days 5,000 psi (34.5 MPa)

• Plastomeric Waterproofing Membrane Polymer

Shall be made from polymer modified bitumen compound, spun bond polyester nonwoven carrier stabilized with glass strands parallel to the machine direction. The carrier gives tensile strength in all directions as well as puncture resistance with excellent dimensional stability.

Finishes: The membrane comes in a standard version with the upper side protected with polyethylene film.

Top Finishes: Polyethylene Film

Bottom Finishes: Heat fusible polyethylene film

Available colors: Grey, Green, Red, White

• Bitumen Primer Solvent Based

Shall be ready to use cold applied solvent based bituminous primer formulated with bitumen, fast drying solvents and additives that greatly enhances adhesion of bituminous waterproofing membranes to substrates. The solvent-based primer first penetrates and then coats the concrete surface sealing pores and on drying creates a fine layer of bitumen. The fine layer allows for a superior bond between membranes and substrate.

3.5.6 EXECUTION

- Comply with Manufacturer's Instruction and standard installation procedures.
- Waterproofing Membrane
 - Surface preparation, tool removal of existing waterproofing using manual and mechanical tools.
 - $\circ~$ Provision of epoxy coving using structural epoxy mixed with fine silica sand
 - Repair of horizontal cracks and concrete damage using structural epoxy mixed with cement, allow to dry for a period of 3 hrs, in normal weather conditions.
 - $\circ~$ Epoxy injection of floor and wall termination, allow to dry 3 hrs in normal weather.
 - o Correct water ponding using mortar mixture adhered to tile adhesive
 - Apply one (1) full coat of bituminous primer using rollers
 - Installation of 4.5kg/m2 bituminous waterproofing
 - Flood testing for 24 hours

- Bitumen Primer Solvent Based
 - Surface Preparation

Ensure that surfaces receiving the primer are sound, clean, dry and free from dust, contaminations and loosely adhering particles such as cement laitance, rust scales etc. should be removed by suitable means. Oils, grease, form release agents, curing compound and other foreign matters should also be removed. Remove any protrusions and loose material and make good any large cracks and holes. Concrete, screed or rendered surfaces must be cured for at least 7 days before priming. Do not add, mix or attempt to thin down with water, diesel or other substances.

o Application

Bitumen primer solvent should be well stirred prior to use. The primer drum should be agitated or rolled if stored over long periods. A brush or roller may be used to evenly apply the primer to the substrate. Apply Primer in one coat by brush, roller or spray at 4-6 m2/Lit, ensuring complete coverage and allow to dry before applying the membrane or subsequent coatings. The primer should be applied over an area that can be covered with membrane or other coatings within the same day. If left exposed for longer periods, clean the surface and re-prime before membrane installation. The primer should be tack-free dry, before applying the membrane. Any area that appears lighter should be re-coated with primer. Application should be on vertical as well as to horizontal surfaces. Coverage is 4-6 m2/Lit. In order to ascertain the exact coverage, a trial application is carried out at site.

3.6 ELECTRICAL WORKS

3.6.1 SCOPE OF WORK

All work under these specifications shall consist of furnishing and/or installing all labor, materials, tools, and all services necessary unless otherwise indicated to complete and make ready for operation, the electrical power, and other utility systems described herein and/or indicated in the Electrical Plans and these specifications.

3.6.2 QUALITY ASSURANCE

- Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies serving the project and the Owner's insurance underwriter.
- Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- Should any change in drawings or specifications be required to comply with the governing regulations, notify the Engineer prior to submitting bid.

- All equipment and installations shall meet or exceed minimum requirements of the Philippines Standard (PS), Philippine Electrical Code (PEC), Institute of Electrical and Electronic Engineers (IEEE), National Electrical Code (NEC) and other references listed below.
- Execute work in strict accordance with the best practices of the trades in a thorough, (substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time Superintendent who is authorized to make decisions on behalf of the Contractor).

3.6.3 REFERENCES

Comply with quality assurance requirements under General Conditions of the Contract Documents and Manufacturer's instructions. Reference to the following standards as applicable:

- PS Philippines Standard
- PEC Philippines Electrical Code
- ANSI American National Standards Institute
- ASTM American Society for Testing and Materials
- ETL Electrical Testing Laboratories
- ICAO International Civil Aviation Organization
 - IEC International Electrotechnical Committee
 - IEEE Institute of Electrical and Electronic Engineers
- IES Illuminating Engineering Society
- IPCEA International Power Cable Engineers Association
 NEC National Electrical Code
- NEMA National Electrical Manufacturer's Association
- NFPA National Fire Protection Association
- SMACNA Sheet Metal and Air Conditioning Contractors National Association
- UL Underwriters Laboratory

3.6.4 SUBMITTALS

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- General: All submittals for approval as indicated herein shall be in accordance with the provisions under General Conditions of the Contract Documents.
- Submit shop drawings, manufacturer's product data sheets, samples, and test reports as specified.

3.6.5 DELIVERY, STORAGE AND HANDLING

- Comply with product delivery requirements under General Conditions of the Contract Documents and Manufacturer's instructions.
- Manufactured materials shall be delivered in the original packages and containers bearing the name and brand of the manufacturer. Damaged or deteriorated materials shall be removed from the premises.

• The product should be stored in cool place out of direct sunlight. Excessive exposure to sunlight will result in the deterioration of the product and reduces its shelf life.

3.6.6 MATERIALS

- All materials to be installed shall be brand new, clean, free of defects, free of damage and corrosion, and shall in every case be the best where such standards have been established for the materials used.
- Products and materials shall not contain asbestos, PCB, or any other material which is installed considered hazardous by the authority having jurisdiction.
- Branch circuit installation for power layout shall be done with rigid steel conduit (RSC) exposed.
- Use PVC pipe for connection between junction boxes with standard fittings.
- All boxes for outlets, and other devices shall be PVC and approved products of reputable manufacturers.
- Boxes for wall, 50mm x 100mm x 55mm deep, locally made.
- Cut ends of conduits shall be reamed and cleaned to remove burr and sharp edges. Threads cut on conduits shall be the same thread dimensions as factory-cut conduit threads. Conduit joints shall be made straight and true. Elbow offsets and changes in the direction of runs shall be uniform. Bends shall be made without chinking or destroying the cross-sectional contours of the conduits. Conduit terminals shall be provided at outlet boxes and cabinets with locknuts and bushing. Conducts shall be continuous from the outlet and from the outlet to pull boxes and cabinets in the manner that the conduit system shall be electrically continuous.
- Where conduit runs are exposed, they shall be supported at an interval of 1.52m maximum with proper clamps and bolts or expansion shields or other means of support.
- All splices tap, junction in wires larger than 8.0 sq. mm. Shall be done with solderless connectors or suitable sizes properly insulated with rubber tapes and protected by friction tapes so that the insulation strength shall at least be equal to the insulation of the conductors they join.
- The smallest size of wire to be used for power unless otherwise indicated shall be 3.5 sq.mm.

3.6.7 WORKMANSHIP

Only skilled workmen using proper tools and equipment shall be employed during the entire course of the installation work. All workmanship shall be of the best quality, all work to be done by the best engineering practice of the trade involved.

3.7 MECHANICAL WORKS 3.7.1 SCOPE OF WORK

The Contractor shall complete the mechanical system as shown on the Plans and as specified herein by the National Plumbing Code of the Philippines and all other applicable local codes.

The Contractor shall execute his branch of work completely, even though some requirements are not contained in the specification or indicated in the Plan.

3.7.2 REFERENCES

Comply with quality assurance requirements under General Conditions of the Contract Documents and Manufacturer's instructions. Reference to the following standards as applicable:

- American Society of Mechanical Engineers, ASME
- American Society for Testing and Materials, ASTM
- American Society of Heating, Refrigerating and Air Conditioning Engineers, ASHRAE
- Sheet Metal and Air Conditioning Contractors National Association, SMACNA
- National Fire Protection Association, NFPA
- American Welding Society, AWS
- Factory Manual, FM

3.7.3 SUBMITTALS

- General: All submittals for approval as indicated herein shall be in accordance with the provisions under General Conditions of the Contract Documents.

3.7.4 MATERIALS

All material, copper tubing, fittings, and valves including rubber insulation hereinafter specified and shown on the Plans and those which are essential and have not been specified shall be new and of the highest grade and quality, free from defects, such as breaks, flaws, or other imperfections.

- Copper Tubing
 - Material: Copper (commonly Type L or Type K).
 - Standard Dimensions:
 - Diameter: Available in both nominal sizes (e.g., 1/4", 3/8", 1/2", 5/8", etc.) and actual dimensions. Commonly used sizes for air conditioning might include 1/4", 3/8", 1/2", 5/8", and 3/4" in outer diameters.
 - Wall Thickness: Typically ranges from 0.032 in to 0.065 in for Type L and Type K to provide strength and resistance to corrosion.

- Pressure Rating: Copper tubing can withstand high pressures, typically rated to handle high-pressure refrigerants used in AC systems.
- Length: Available in standard lengths of 20 ft, 30 ft, and 50 ft, although custom lengths can often be provided.
- Joining Methods: Can be joined using soldering, brazing, or compression fittings.
- Insulation
 - Material: Shall include closed-cell neoprene, polyethylene, or rubber insulation.
 - Thickness: thickness shall range from 1/2 inch to 1 inch, depending on the application and energy efficiency requirements.
 - \circ Thermal Conductivity: Low thermal conductivity is desired to prevent energy loss (commonly ranges between 0.020-0.030 BTU·in/hr·ft²·°F).
 - \circ Temperature Range: Insulation should be capable of withstanding temperature ranges typically from -40°F to 220°F.
 - Moisture Resistance: The insulation material should be resistant to moisture absorption to avoid mold and mildew growth.
 - Fire Resistance: Insulation should meet relevant fire safety standards, such as UL 94 or ASTM E84.
- Aircon Drainpipe
 - Material: Shall be PVC pipe
 - Size: Shall be 3/4 inches
- Check Valve
 - Material:

Body: Shall be made from brass, stainless steel, or plastic (depending on application)

Sealing Material: Shall be rubber, silicone, or other elastomeric materials for sealing

• Pressure Rating:

Typically rated for refrigerant pressures, commonly up to 500 psi or more, depending on the system requirements.

- Temperature Range:
- Operating temperature range is typically between -20°F to 250°F (-29°C to 121°C), depending on the refrigerant used.
- Flow Orientation: Designed for unidirectional flow; often labeled with an arrow on the body indicating the direction of flow.
- Connection Type:

- Threaded (NPT or BSP)
- Flanged connections
- Sweat or solder connections for copper lines
- o Size:

- Size shall range from 1/4 inch to 2 inches or larger, depending on the application and system design.

• Flow Coefficient (Cv):

- A rating that indicates the flow capacity of the valve. This is often specified by the manufacturer.

• Leakage Rate:

- Maximum allowable leakage rate is usually defined, especially for systems handling refrigerants that require stringent regulations.

• Standards and Certifications:

- Compliance with industry standards such as ASHRAE, DOE, and applicable refrigerant safety standards (e.g., AHRI).

• Installation Orientation:

- Some check valves are designed for vertical or horizontal installation; the manufacturer's instructions should specify proper installation.

3.7.5 EXECUTION

- Relocation of ACU Outdoor Units
 - Dismantling of Eight (8) outdoor units.
 - Reinstallation of Eight (8) outdoor units.
 - Installation of steel brackets mounting and supports paint finish
 - Installation of outdoor unit
 - Installation, and rerouting of new copper tubing with rubber insulation
 - Installation of new drainpipe
 - Installation of new drain pump
 - Installation of Electrical lines, #12 thhn/thwn copper wire
 - Installation of aircon check valve
 - Installation of pvc orange,1/2diameter x 10ft long with cclamp
 - Installation of PVC pull box square orange with plate cover

4. HEALTH AND SAFETY

4.1 General Guidelines

In compliance with Section 17 of DOLE D. O. No. 13, the implementation of construction safety shall be considered in all stages of project procurement (design, estimate, and construction) and its cost shall be integrated to the overall project cost under Pay Item "SPL- Construction Safety and Health" as a lump sum amount. Likewise, all requirements, provisions, and instructions pertaining to the implementation of Construction Safety and Health in every project shall be included in the project bidding documents specifically under the Instructions to Bidders.

Further considering industry practices and applicable government requirements, the following guidelines are hereby issued to all concerned:

4.2 Definition of Terms

As used herein, the terms below shall be defined as follows:

a. Occupational Safety and Health – As defined is the:

1) Promotion and maintenance of the highest degree of physical, mental, and social well-being of workers in all occupations.

2) Prevention among its workers of any departures from health caused by their working conditions.

3) Protection among workers in their employment from risk usually from factors adverse to health; and

4) Placing and maintenance of workers in an environment adapted to his/her psychological ability.

b. Occupational Safety and Health Standard (OSHS)

By the powers vested in the Department of Labor and Employment under Article 162 of the Labor Code of the Philippines, the Occupational Safety and Health Standards (OSHS) were promulgated for the guidance and compliance of all concerned with the main objective of protecting every working against the dangers of injury, sickness or death through safe and healthful working conditions, thereby assuring the conservation of valuable manpower resources and the preservation of loss or damage to lives and properties, consistent with national development goals and with the State's commitment for the development of every worker as a complete human being.

Likewise, further described as rules and regulations implementing Article 162 (Safety and Health Standards), Book IV, Title I, P. 0.442; a set of mandatory OSH standards which codifies all safety orders being enforced before its promulgation; and - contains administrative requirements, general safety and health rules, technical safety regulations, and other measures to eliminate or reduce OSH hazards in the workplace.

- c. Construction Safety and Health Standards shall mean Rule 1410, Construction Safety and other relevant rules of the Occupational Safety and Health Standards (as amended) of the Department of Labor and Employment (DOLE).
- d. Construction Safety and Health Program– refers to a set of detailed rules to cover the processes and practices that should be utilized in a specific construction site in conformity with the OSHS including the personnel responsible and the penalties for violations thereof.
- e. Construction Safety and Health Officer refers to safety personnel or any employee/worker trained by his employer to implement occupational safety and health programs by the provisions of DOLE D.O. No. 13 and the Occupational Safety and Health Standards (OSHS).
- f. Personal Protective Equipment (PPE) and Devices are equipment and devices designed to protect employees from workplace injuries or illness resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. It also includes a variety of devices and garments such as face shields, safety glasses, hard hats, safety shoes, goggles, coveralls, gloves, vests, respirators, safety harness and lifelines.

4.3 Purpose

The purpose of these guidelines is to establish a uniform methodology in estimating the required resources (manpower and equipment) for the implementation of Construction Safety and Health Standards in the workplace in compliance with the provisions of DOLE D.O. No. 13.

4.4 Methodology

The minimum construction safety and health requirements for the project shall be prepared during the detailed engineering stage.

To establish a uniform basis for estimating the required quantity of resources (manpower and equipment) for a project the following methodology shall be used.

a. Construction Safety and Health Program (CSHP)

Section 5 of the DOLE D.O. NO.13 provides that every construction project shall have a suitable Construction Safety and Health Program (CSHP).

For the purpose of these guidelines, all projects regardless of amount, funding source and mode of implementation shall comply with the minimum safety and health requirements.

The contractor's proposed CSHP shall be in accordance with DOLE D.O. No. 13, series of 1998 and its Procedural Guidelines to be submitted by the winning bidder for approval of the DPWH authority, subject to concurrence by DOLEBWC.

For the project to be implemented by administration a CSHP shall also be prepared by the DPWH Implementing Office in accordance with the requirements of DOLE D. O. No. 13, s. of 1998 and likewise it shall also be submitted to DPWH authority for approval and thereafter to be concurred also by the DOLE-BWC.

The required Construction Safety and Health Program (CSHP) for specific project shall include but not limited to the following:

- composition of the Safety and Health personnel responsible for the proper implementation of CSHP.
- specific safety policies which shall be undertaken in the construction site, including frequency of and persons responsible for conducting toolbox and gang meetings.
- penalties and sanctions for violations of the Construction Safety and Health Program.
- frequency, content and persons responsible for orienting, instructing and training all workers at the site about the Construction Safety and Health Program which they operate; and
- the manner of disposing waste arising from the construction.
- b. Construction Safety and Health Organization

To ensure that the Construction Safety and Health Program are observed and implemented at the project site, at the start of D.O. No. 56 s. 2005 construction, each site shall have an established construction safety and health organization composed of the following personnel:

• Safety Engineer/Officer

Section 7.1 of D.O. NO.13 states that "The contractor must provide for a full-time Officer, who shall be assigned as the General Construction Safety and Health Officer to oversee full-time the overall management of the Construction Safety and Health Program".

Section 7.2 states that " The contractor must provide for additional Construction Safety and Health Officer/s in accordance with the requirements for Safety Man / Officer of Rule 1033, Training and

Personnel Complement, as amended by DOLE D.O. No. 16 depending on the total number of personnel assigned to the construction project site, to oversee the effective compliance with the Construction Safety and Health Program at the site, under the direct supervision of the General Construction Safety and Health Officer".

For these guidelines, and as recommended by DOLE, for every construction project with 100 and above workers, an accredited safety officer by DOLE-BWC shall be employed. Only the cost for the Construction Safety and Health Officer, whether

on a full-time or part-time basis, assigned at the construction site shall be included in the cost estimate.

On the part of the government, the implementing office shall designate as part of their project staff a Safety Engineer who shall be responsible for ensuring compliance with the pertinent DOLE Guidelines as well as the DPWH Guidelines on Occupational Safety and Health during the execution of the construction. The counterpart safety and health officer of the contractor shall closely coordinate and report to the government Safety Engineer.

Health Personnel

Rule 1412.01 of OSHS states that "at every construction site there shall be an organized and maintained medical and dental health service and personnel' conforming with Rule 1960 Occupational Health Services.

For these guidelines, only the medical and dental practitioners assigned to the project site and as required in the above-stated Rule shall be included in the total cost of safety.

Manpower rates shall be based on the prevailing rates of such professionals in the area which is found favorable to the government.

The employment period shall be based on the approved project duration and shall be adjusted correspondingly as the duration increases/decreases.

c. Personal Protective Equipment and Devices (PPE)

Section 6 (Personal Protective Equipment) of D. O. No. 13 guidelines state that "every employer shall, at his own expense, furnish his workers with protective equipment for eyes, face, hands and feet, lifeline, safety belt/harness, protective shields and barriers whenever necessary because of the hazardous work process or environment, chemical or radiological or other mechanical irritants of hazards capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical agent".

All Personal Protective Equipment and Devices shall be by the requirement of the Occupational Safety and Health Standards (OSHS) and should pass the test conducted and/or standards set by the Occupational Safety and Health Center (OSHC).

For General Construction Work the required Basic PPEs for all workers shall be Safety Helmet, Safety Gloves, and Safety Shoes. Specialty PPEs shall be provided to workers in addition to or instead of the corresponding basic PPE as the work or activity requires.

d. Signages and Barricades

Construction Safety Signages and Barricades shall be provided as a precaution and to advise the workers and the public of the hazards existing on the work site. Road construction signages and barricades shall be by or in compliance with Department Circular No.9, Series of 2004 (Re: Road Safety Manuals and Handbooks) particularly on the 'Road Works Safety Manual.

e. Facilities

Section 16 of DOLE D.O. NO.13 requires that the employer provide the following welfare facilities to ensure humane working conditions.

- adequate supply of safe drinking water.
- adequate sanitary and washing facilities.
- Suitable living accommodation for workers, and as may be applicable, for their families; and
- separates sanitary, washing, and sleeping facilities for men and women workers.
- For these guidelines, facilities related to construction, safety and health shall be by OSH Standards and the manner of costing shall be based on previously approved guidelines of the Department, duly quantified as a separate pay item.
- f. Safety and Health Training

Section 13 of DOLE D.O. No. 13 requires that the contractor shall provide continuing construction safety and health training to all technical personnel under his employ.

4.5 Costing

In consideration of the cost involved of providing the necessary safety equipment and manpower for an effective implementation of safety in the workplace, and in compliance with DOLE D.O. No. 13, with safety as a separate pay item, the following shall be used as a guide:

a. Personal Protective Equipment

The PPEs shall be provided by the Contractor, and its cost shall be duly quantified and made part of the overall cost of safety and health (SPL). The use of PPEs shall conform to Rule 1080, Personal Protective Equipment and Devices of OSHS.

b. Clinical Materials and Equipment

Clinical materials and equipment such as medicines, beds and linens, and other related accessories shall be to the account of the Contractors implementing the project and shall be by Rule 1960, Occupational Health Services of OSHS.

c. Signages and Barricades

The quantities and cost of signage and barricades necessary for a specific item of work shall be quantified and made part of that pay item of work.

For general signage and barricades not included in specific pay item of work but necessary for promoting safety in and around the construction site, the quantities and cost shall be a separate pay item and included in the overall cost of safety and health (SPL).

d. Facilities

Facilities such as portable toilets, waste disposal, sanitary and washing facilities, convenient dwellings and offices, adequate lighting, and other facilities related to construction safety and health shall be by OSH Standards and previously approved guidelines of the Department and shall be quantified and the cost thereof be made a separate pay item under "Facilities for the Engineers" and "Other General Requirements" as required in the DPWH Standard Specifications.

e. Salaries/wages of Health and Safety Personnel

Labor costs for the medical and safety personnel assigned in the field shall be included in the overall cost of safety and health (SPL). Duration of employment shall be based on the project duration of the project.

f. Safety and Health Training

The cost associated with the provision of basic and continuing construction safety and health training to all safety and technical personnel shall be made part of the indirect/overhead cost of the project.

4.6 Cleaning, Hauling of Wastes and Debris and Cleaning of Site

After a final inspection of all the works undertaken, remove all paint stains, temporary structures, installation, unused/scrap materials, wastes, and debris. Dispose of them properly.

5. PREVENTION OF ACCIDENTS AND PUBLIC NUISANCE

5.1. General

The Contractor shall formulate adequate control measures by the relevant local laws and regulations regarding the prevention of accidents, fires, and public nuisances during the execution of the work.

The Contractor shall ensure that his workmen are aware, and shall so instruct the workmen, of good and safe working practices.

The Contractor's safety plan shall consider, among other items, working in Restricted Areas, Contractor's Equipment; handheld power tools; percussion guns; air compressors and hoses; electrical equipment; fuels; use of dust masks, ear protectors, safety helmets and safety lines.

5.2. Prevention of Accidents

The Contractor shall formulate a safety plan for work at the Site to provide proper protection, especially at such places in the restricted Areas.

5.3. Pollution Control

The Contractor shall take all necessary steps to minimize noise, vibration, dust, soot, and other pollution resulting from the execution of the work.

6. PERIOD OF WORK

The Contractor shall complete the work within **Seventy-Five** (**75**) **calendar days** upon receipt of the Notice to Proceed. The Contractor shall work a minimum of 8 hours per day to finish the work on time.

7. WARRANTY PERIOD

- 1. The Contractor shall guarantee for a warranty period of Ten (10) years on waterproofing materials and workmanship.
- 2. The Contractor shall guarantee for a warranty period of One (1) year on electrical wiring materials and workmanship.
- 3. The contractor shall guarantee his work for a period of one (1) year from the date of acceptance of the PSC, with which time, he shall repair any defects and failures in any part of the system and replace defective materials. For any item found to be defective within the period, the contractor shall immediately replace the said item/s at their own expense and no cost to PSC.

Any damage to life and property caused by the contractor's operation within the vicinity of the facility covered by the project shall be the sole responsibility of the contractor.

8. CONTRACTORS RISK AND WARRANTY SECURITY

- 1. The Contractor shall assume full responsibility for the works from the time of construction commenced up to final acceptance by the Procuring Entity's Representative/s and shall be held responsible for any damage or destruction of the works except those occasioned by force majeure. The Contractor shall be fully responsible for the safety, protection, security, and convenience of his personnel, third parties, and the public at large, as well as the works, equipment, fabrication, installation and the like to be affected by his construction works and deliveries.
- 2. The certificate of acceptance shall be issued by PSC after all defects have been corrected.

9. ACCEPTANCE OF THE PROJECT

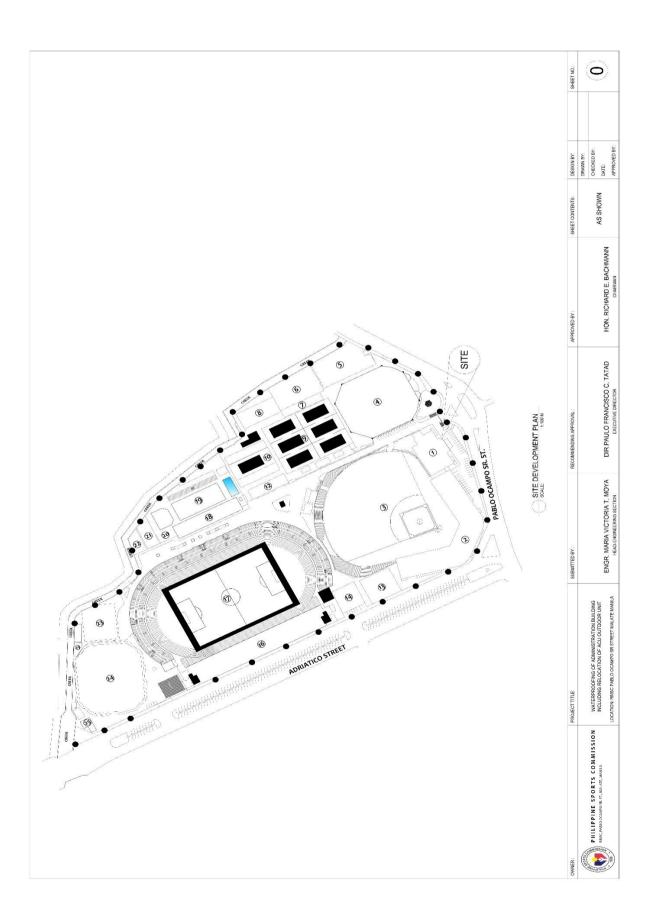
The Certificate of Acceptance will be issued upon approval of the PSC Engineer/Architect and the Head of the Procuring Entity.

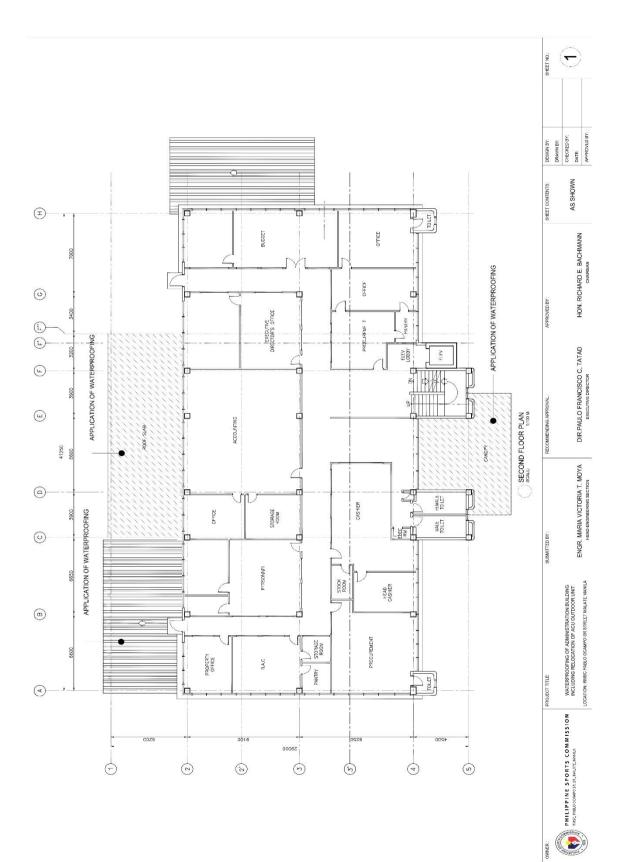
Statement of Compliance

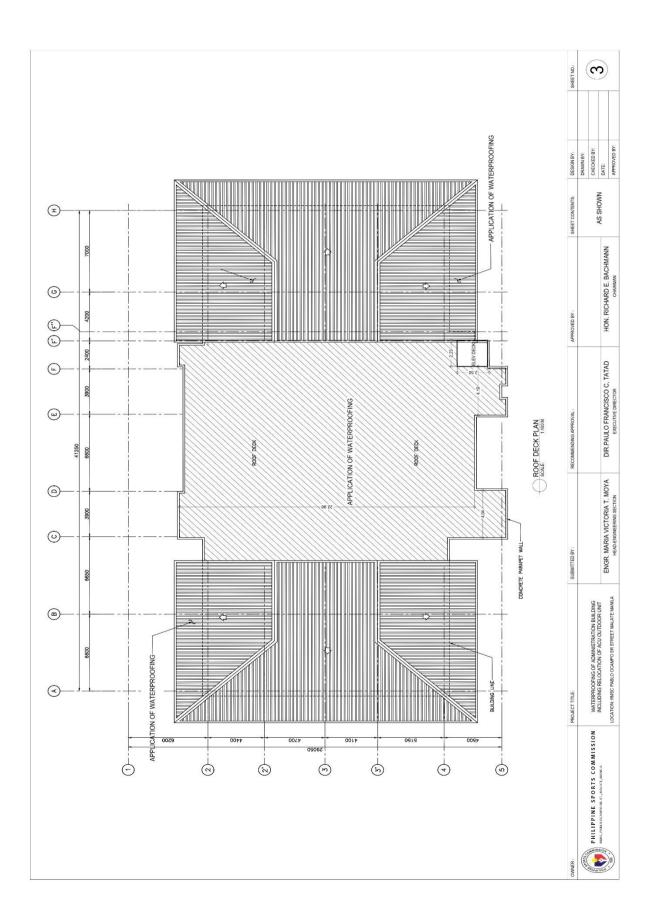
I hereby commit to providing the above specified requirements in compliance with the Terms of Reference for the Project: Waterproofing of Administration Building including Relocation of Outdoor Air-Conditioning Units at RMSC, Manila.

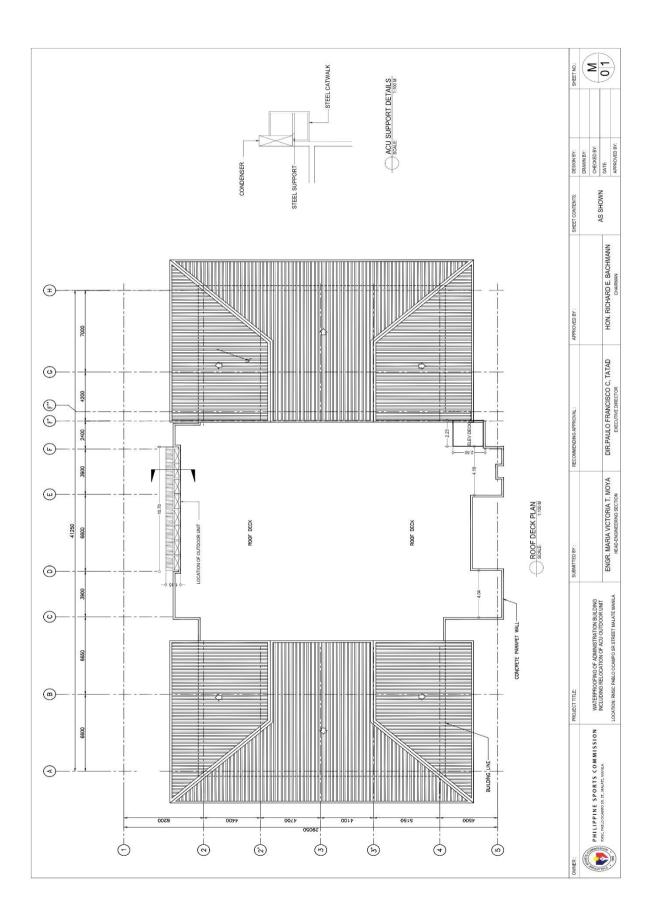
Name and Signature of Bidder's Authorized Representative

Section VII. Drawings









Section VIII. Bill of Quantities



:

Republic of the Philippines Office of the President **Philippine Sports Commission**



BILL OF QUANTITY

Name of Project:

Location

Waterproofing of Administration Building including Relocation of Outdoor Air-Conditioning Units at RMSC, Manila Rizal Memorial Sports Complex, Pablo Ocampo St, Malate, Manila

1.110		ITEN (DESCRIPTION	Q	Y	MATERIAL COST	LABOR COST	TOTAL AMOUNT
NO.		ITEM / DESCRIPTION	QTY	UNIT	MATERIAL COST	LABOR COST	TOTAL AMOUN
							~
A. A.1	GENERAL REC Construction Sa		1.00	lot			
A1 A2		ntais (H frames)	1.00		1		
A.3	Clearing and Ha		1.00				
A.S A.4	Flood Testing		1.00				2
As	Flood Testing	SUB-TOTAL COST	1.00	IOL			c
В.	WATERPROOF		1				
D.	1. ROOF DECK			1	1 1		1
		Surface preparation using manual and mechanical grinding of surface					
		Repair of cracks on slab with epoxy grouting injection	2				
		Slope Correction (Screeding)	782.10	sq.m			
	1.4	Installation of 4.0mm torch stated/granulated membrane (Hot Process)	N 199393				
		Application of (2) two full coats of Elastomeric Paint			3		5
		SUB-TOTAL COST					
	2. CANOPY AREA		6	3	3		£
	1.1	Surface preparation using manual and mechanical grinding of surface					2
		Repair of cracks on slab with epoxy grouting injection	(- 1826) S	sq.m			
	1.3	Slope Correction (Screeding)	107.35				
		Installation of 4.0mm torch slated/granulated membrane (Hot Process)	8				
	1.5	Application of (2) two full coats of Elastomeric Paint		-			
		SUB-TOTAL COST					5
		HEETS LEFT AND RIGHT AT ROOF DECK		-2			
		Surface preparation using manual and mechanical grinding of surface Retightening and reseating of texscrew heads	S. CONTRACTOR	12/2/2017-0			
		Installation of 4.0mm torch stated/granulated membrane (Hot Process)	735.00	sq.m			
		Application of (2) two full coats of Elastomeric Paint	20 - 27 - 47 - 48 - 17 - 47 - 48 - 17 - 17 - 18 - 18 - 18 - 18 - 18 - 1	00000000000			
	1.4	SUB-TOTAL COST	2	8	-		2
	4. 2ND FLOOR REAR AREA SLAB AND ROOFING SHEET		22	-5			
		Surface preparation using manual and mechanical grinding of surface					
		Repair of cracks on slab with epoxy grouting injection	8				
		Slope Correction (Screeding)		100000000000000000000000000000000000000			
		Retightening and resealing of texscrew heads	162.50	sq.m			
		Installation of 4.0mm torch slated/granulated membrane (Hot Process)	i i i i i i i i i i i i i i i i i i i	- 102			
	1.6	Application of (2) two full coats of Elastomeric Paint					
	Survey and warren	SUB-TOTAL COST	5	S	3		2
		ROOF AND WALL PORTION	12 C	Q	2		
		Surface preparation using manual and mechanical grinding of surface		m.pa			
		Repair of cracks on slab with epoxy grouting injection					
		Slope Correction (Screeding)	12.90				
	1.4	Installation of 4.0mm torch stated/granulated membrane (Hot Process)					
	1.5	Application of (2) two full coats of Elastomeric Paint		2	-	-	-
	0.0005.01.45	SUB-TOTAL COST	10	12			
		LEFT AND RIGHT PORTION	5	-			C
		Surface preparation using manual and mechanical grinding of surface Repair of cracks on slab with epoxy grouting injection	26 H H	sq.m			
		Slope Correction (Screeding)	37.5				
		Installation of 4.0mm torch stated/granulated membrane (Hot Process)	01.00				
		Application of (2) two full coats of Elastomeric Paint		e			
	1.9	SUB-TOTAL COST					
	RELOCATION	OF ACU OUTDOOR UNIT					ŝ.
		Condensing unit, Pipings, wires, conduits, brackets	I and the	Sam	1 I I I I I I I I I I I I I I I I I I I		0
	1.1	Split type inverter outdoor unit	7.00	units	-		6
	1.2	Floor mounted inverter outdoor unit	1.00	units			
	and the second second	SUB-TOTAL COST	13	3	1		5
	Installation of aircon outdoor unit		å sener	àn -	2		
	1.1	Supply and fabrication of steel brackets mounting and supports paint finish	1.00	lot			
	1.2	Installation of Acu outdoor unit		units			
	1.3	Supply, Installation and rerouting of new copper tubing with rubber insulation	410.00		1		
	1.4	Supply and Installation of new drain pipe	40.00		2		
	1.5	Supply and installation of new drain pump	8.00	units			2
	1.6	Supply and installation of Electrical lines, #12 thhn/thwn copper wire		boxes			
	1.7	Supply and installation of aircon check valve	8.00				
	1.8	Supply and installation of pvc orange,1/2diameter x 10ft long with c-clamp	40.00		2		
	1.9	Supply and installation of PVC pull box(square) orange with plate cover	20.00	pcs			5
		SUB-TOTAL COST			P .	Ρ.	P

Submitted by:

Name of Company and Authorized Representative

Designa Date

Amount in words:

A DIRECT COST MATERIALS COST TOTAL DIRECT B. INDIRECT COST OCM PROFIT VAT & TAXES TOTAL INDIRECT C. TOTAL

Section IX. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

□ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) in accordance with Section 8.5.2 of the IRR;

Technical Documents

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

Financial Documents

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

Class "B" Documents

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

II. FINANCIAL COMPONENT ENVELOPE

 \Box (j) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

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

