PHILIPPINE BIDDING DOCUMENTS

CONVERSION OF HAZARDOUS WASTE STORAGE INTO RICE MILLING FACILITY AND IMPROVEMENT OF CHEMICAL STORAGE STOCKING AREA

PB INRA 24-02-01

Sixth Edition
July 2020

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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

Philippine Rice Research Institute
Central Experiment Station
Maligaya, Science City of Muñoz, 3119 Nueva Ecija

Invitation to Bid
Conversion of Hazardous Waste Storage into Rice Milling Facility (Area 1) and Improvement of Chemical Storage Stocking Area (Area II)
PB INFRA 24-02-01

1. The **DA-Philippine Rice Research Institute-Central Experiment Station**, through the 2024 Corporate Fund Budget intends to apply the sum of the following being the ABC to payments under the contract for PB Infra 24-02-01**.**

Item no.	Quantity	Item/Description	ABC
1	1 Lot	Conversion of Hazardous Waste Storage into Rice Milling Facility (Area 1)	₱720,000.00
		Improvement of Chemical Storage Stocking Area (Area II)	₱1,630,000.00

Bids received in excess of the ABC shall be automatically rejected at bid opening.

2. The **DA-Philippine Rice Research Institute-Central Experiment Station** now invites bids for the above Procurement Project. Completion of the Works is required for **one hundred twenty calendar days (120 CD).** 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 non-discretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

4. Prospective Bidders may obtain further information from DA-PhilRice CES and inspect the Bidding Documents through the BAC Secretariat- Procurement Management Division at Philippine Rice Research Institute, Brgy. Maligaya, Science City of Muňoz, Nueva Ecija during Mondays to Fridays, except holidays from 8:00 A.M. to 5:00 P.M.

5. A complete set of Bidding Documents may be acquired by interested Bidders from the 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 **Two Thousand Five Hundred Pesos Only (P2,500.00).** The Procuring Entity shall allow the bidder to present its proof of payment for the fees either by facsimile, or through other electronic means.

6. The **DA-Philippine Rice Research Institute-Central Experiment Station** will hold a Pre-Bid Conference on July 09, 2024, 9:00 A.M. at the BAC Secretariat-Procurement Management Division Office, Philippine Rice Research Institute, Brgy. Maligaya, Science City of Muñoz, Nueva Ecija and/or through video conferencing or webcasting via Zoom, which shall be open to prospective bidders.

7. Bids must be duly received by the BAC Secretariat through (i) manual submission at the office address indicated below on or before July 24, 2024; 5:00 P.M. 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 15.

9. Bid opening shall be on July 25, 2024, at 09:00 A.M. at the given address below and/or via Zoom. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

10. Refer to the following bidding activities:

Advertisement/Posting of Bidding Document/Invitation to Bid	02 July 2024
Issuance and Availability of Bidding Document	02 July 2024
Pre-Bid Conference	09 July 2024, 9:00 A.M.
Last day of Submission of Written Clarification	15 July 2024
Last day of Issuance of Bid Bulletin	18 July 2024
Deadline for Submission and Receipt of Bids	24 July 2024, 5:00 P.M.
Opening of Bids	25 July 2024, 09:00 A.M.

11. The **DA-Philippine Rice Research Institute-Central Experiment Station** 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.

12. For further information, please refer to:
BAC Secretariat
Procurement Management Division
Philippine Rice Research Institute
Maligaya, Science City of Munoz, Nueva Ecija
Mobile No. 0999-2248705

e-mail: **bacsecretariatprri@gmail.com/bacsecretariat2@philrice.gov.ph**

You may visit the following websites:

For downloading of Bidding Documents:

www.philrice.gov.ph/www.philgeps.gov.ph

Date: 01 July 2024

--signed--
FIDELA P. BONGAT
BAC Chairperson for Civil Works

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, DA- Philippine Rice Research Institute-Central Experiment Station invites Bids for the Conversion of Hazardous Waste Storage into Rice Milling Facility (Area 1), and Improvement of Chemical Storage Stocking Area (Area II), with Project Identification Number PB Infra 24-02-01.

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 the *2024 Corporate Fund Budget* in the amount of *Two Million Three Hundred Fifty Thousand Pesos Only (₱2,350,000.00).*

2.2. The source of funding is:

a. GOCC and GFIs, the Corporate Operating Budget.

3. Bidding Requirements

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

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

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

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

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

5. Eligible Bidders

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

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

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

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

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

6. Origin of Associated Goods

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

7. Subcontracts

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

The Procuring Entity has prescribed that:

a. Subcontracting is not allowed.

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

8. Pre-Bid Conference

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

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

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

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

10.3. A valid special PCAB License in 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:*

a. 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 valid for 120 calendar days from the date of opening of bids. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

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

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

<table>
<tr><th>ITB Clause</th><th></th></tr>
<tr><td>5.2</td><td>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be:

General Construction, Repair and Improvement</td></tr>
<tr><td>7.1</td><td>No further instructions.</td></tr>
<tr><td>10.3</td><td>A valid PCAB license is required for this project of at least Category C & D/Small B</td></tr>
<tr><td>10.4</td><td>The key personnel must meet the required minimum years of experience set below:
<table>
<tr><th>Key Personnel</th><th>General Experience</th><th>Relevant Experience</th></tr>
<tr><td>Project Manager</td><td>Project Management</td><td>10 years</td></tr>
<tr><td>Project Engineer</td><td>General Construction</td><td>5 years</td></tr>
<tr><td>Health and Safety Officer</td><td>Occupational Health and Safety Standard</td><td>5 years</td></tr>
<tr><td>Foreman</td><td>General Construction</td><td>5 years</td></tr>
<tr><td>Installer/Carpenter</td><td>General Construction</td><td>5 years</td></tr>
<tr><td>Mason/Carpenter</td><td>General Construction</td><td>5 years</td></tr>
<tr><td>Tilesetter</td><td>General Construction</td><td>5 years</td></tr>
<tr><td>Welder</td><td>General Construction</td><td>5 years</td></tr>
<tr><td>Painter</td><td>General Construction</td><td>5 years</td></tr>
<tr><td>Plumber</td><td>General Construction</td><td>5 years</td></tr>
<tr><td>Electrician</td><td>General Construction</td><td>5 years</td></tr>
</table></td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:

<table>
<tr><th>Power Tools</th><th>Number of Unit/s</th></tr>
<tr><td>Electric Drill</td><td>2</td></tr>
<tr><td>Grinder</td><td>2</td></tr>
<tr><td>Cut-off Machine</td><td>1</td></tr>
<tr><td>Circular Saw</td><td>1</td></tr>
<tr><td>Concrete Vibrator</td><td>1</td></tr>
<tr><th>Equipment / Heavy Equipment</th><th>Number of Unit/s</th></tr>
<tr><td>One-Bagger Mixer</td><td>1</td></tr>
<tr><td>Welding Machine</td><td>2</td></tr>
<tr><td>Plate Compactor</td><td>1</td></tr>
<tr><td>Mini Dump Truck / Elf</td><td>1</td></tr>
</table></td></tr>
<tr><td>12</td><td>No further instructions.</td></tr>
<tr><td>15.1</td><td>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:
a. The amount of not less than ₱47,000.00 [two percent (2%) of ABC], if bid security is in cash, cashier’s/manager’s check, bank draft/guarantee or irrevocable letter of credit;

b. The amount of not less than ₱117,500.00[five percent (5%) of ABC] if bid security is in Surety Bond.</td></tr>
<tr><td>19.2</td><td>Partial bids are not allowed.</td></tr>
</table>

20	*Latest income and business tax returns filed and paid through the Bureau of Internal Revenue (BIR) Electronic Filing and Payment System (eFPS) for the last six (6) months prior to the opening of bids* *a. VAT Returns (BIR Form 2550Q) or Percentage Tax Return or BIR Form 2551Q) with proof of payment for the last six (6) months.* *b. Latest Quarterly and Annual Income Tax Returns (BIR Form 1701 or 1702)* *Latest Audited Financial Statement received by the BIR.*
21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and other acceptable tools of project scheduling.

Section IV. General Conditions of Contract

1. Scope of Contract

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

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

2. Sectional Completion of Works

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

3. Possession of Site

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

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

4. The Contractor's Obligations

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

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

5. Performance Security

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

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

6. Site Investigation Reports

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

7. Warranty

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

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

8. Liability of the Contractor

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

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

9. Termination for Other Causes

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

10. Dayworks

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

11. Program of Work

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

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

12. Instructions, Inspections and Audits

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

13. Advance Payment

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

14. Progress Payments

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

15. Operating and Maintenance Manuals

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

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

Section V. Special Conditions of Contract

Special Conditions of Contract

GCC Clause	
2	*The completion of the work required is 120 calendar days.*
4.1	*No further instructions*
6	The site investigation reports are: *n/a*
7.2	*[In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures:]* Five (5) years.
10	*a.* 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 *seven (7)* days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is **1% of the amount of progress billing**
13	The amount of the advance payment is not more than ***15% of the total contract price.***
14	Materials and equipment delivered on the site but not completely put in place shall be included for payment.
15.1	The date by which operating and maintenance manuals are required is *upon project completion.* The date by which "as built" drawings are required is *upon project completion.*
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is **Fifteen Thousand Pesos Only (PhP 15,000.00).** **Close-Out Report** is required upon completion which includes the following: **As-Built Plans** (3 copies A3-print and CD for AutoCAD file); **Materials Book** (including all Materials Sample Approval forms); **Manuals/ Warranty Certificates** for equipment/ appliances (if applicable); **Pictures of Work Progress** (in print and in CD for electronic copy) Refer to Section VI for complete details of the Close-Out Report.

Section VI. Specifications

GENERAL REQUIREMENTS

A. SUMMARY OF WORKS

1. **General -** All provisions of the "General Conditions of Contract" shall form part of this section. All general requirements contained in the Bidding Documents and other Contract Documents shall likewise apply.

2. **Scope -** The work includes the furnishing of all materials, labor, tools and equipment and the performance of all operations necessary for the **Conversion of Hazardous Waste Storage into Rice Milling Facility (Area 1) and Improvement of Chemical Storage Stocking Area (Area II)** in accordance with the Plans and Specifications, and subject to the terms and conditions of the Contract Documents.

3. **Location -** The proposed work is located at the **PhilRice CES, Science City of Muñoz, Nueva Ecija**

B. COORDINATION

Supervision

1. The contractor must employ only **competent and efficient key personnel** experienced in their specialization.

2. Submission of the **complete list of ALL personnel/laborers** employed is **required** before commencement of Works.

3. All personnel/laborers shall wear **proper uniform and IDs** when entering and when within PhilRice Campus.

2. Construction Safety and Health/Safety Management

The contractor shall put up and continuously maintain **adequate safety measures** that shall prevent undue loss, damages and injury on workers, or loss of properties.

The contractor 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 by reason 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.

A. REGULATORY AND OTHER REQUIREMENTS

Other Requirements

All requirements described in detail in the General Requirements shall be provided and shall be the sole responsibility of the Contractor in the execution of the work. These are, among others:

1. Permits and Fees
2. Materials Testing
3. Project/Technical Meetings and Conferences

The Contractor and others working under his jurisdiction shall perform work in compliance with the rules and regulations and ordinances of any kind required by the governmental authority or other agency having jurisdiction over his work.

He shall also comply with the Integrated Management System (IMS) Policy of PhilRice.

B. PROJECT/TECHNICAL MEETINGS

1. Pre-Construction Conferences

A pre-construction meeting between the Implementing Office, end user, project engineer and other representatives designated by PhilRice, and the Contractor shall be held at the site prior to the commencement of Works.

This meeting shall be for the purpose of:

a. resolving current problems;
b. further orienting the Contractor to the requirements of the Drawings and Specifications;
c. informing the Contractor of the Implementing Office's responsibility to PhilRice for the supervision; and
d. working out with the Contractor a general schedule of supervision

2. Progress Meetings

The Contractor shall meet with the Implementing Office weekly or as required to verify the progress of the work.

E. SUBMITTALS

1. Construction Schedules

The Contractor shall contact the Implementing Office before covering up any work so that proper inspection may be made.

2. Network Analysis Schedules

The Contractor shall prepare a PERT-CPM Construction Schedule to indicate the following:

a. All activities necessary to complete the project;
b. Monthly value of each activity.

3. Shop Drawings, Product Data and Samples

The Contractor shall review, stamp with his approval, and submit shop drawings and submittals for approval of the Implementing Office for conformance of the design concept and information given in the Contract Documents. **The work shall be in accordance with the Drawings and Specifications.**

Where specified or required, the Contractor shall submit samples to the *end user/project engineer with the bill of materials as reference*, together with specification material, affidavits and other documentation as may be required by the *PhilRice*. **It is the Contractor's specific responsibility to ascertain that the samples submitted have been checked and approved.** The cost of the samples together with the transportation, delivery and any other costs shall be borne by the Contractor.

Where samples are specifically required to be submitted for approval, **no work involving the samples/materials shall proceed until written approval has been obtained**.

4. Close-Out Report

Upon completion of the Works the Contractor shall furnish PhilRice the required **Close-Out Report** as indicated in SCC Clause 51.2 which shall be a **prerequisite for the processing of the final payment.**

The Close-Out Report shall include, but not limited to, the following:

a. "AS-BUILT" Plans - three (3) copies in print (A3-size), and CD for AutoCAD file;

b. Materials Book containing Materials Sample Approval forms, and list of all materials used, with corresponding pictures and description;

c. All Operating and Maintenance Manuals and Warranty Certificates for equipment/appliances, if applicable;

d. Pictures of Work Progress (in print and in CD for electronic copy);

e. Other compiled pertinent documents such as notices issued by PhilRice or requests forwarded by the Contractor, etc.

The Contractor shall produce and submit the required Close-Out Report, at his own expense, for approval of the institute.

F. CLEANING

Demobilization and Clean-Up

The Contractor shall be responsible for the **general cleaning and demobilization of all tools, surplus materials and equipment** used in the execution of the work.

SITEWORK

A. SITE PREPARATION

General

a. **Scope** - This section includes labor, materials, equipment, plant and other facilities and the satisfactory performance of all work necessary to complete clearing, grubbing, stripping, and all other site preparation works.

b. **Protection**

- **Workmen:** Provide adequate measures to protect workmen and public in the site.

- **Surrounding Area:** Protect existing buildings and other structures from damage, and repair damage caused by this work at no additional cost to PhilRice.

- **Utility Lines:** Existing utility lines indicated or locations of which are made known to the Contractor prior to excavation, and that which are indicated to be retained, as well as utility lines constructed during excavation operations, shall be protected from damage during excavating and backfilling, and if damaged, shall be repaired at no extra cost. Site survey shall be conducted by the Contractor to acquaint with existing utility lines. Proper measures shall be taken and immediate information forwarded to the Implementing Office when utility lines are encountered within the area of operation.

Where utility lines are encountered within the area of operations, the Contractor shall notify the Implementing Office in ample time for the necessary measures to be taken interruption of the service.

- **Survey and Grades:** The drawings indicate layout of grounds and building and existing and final site grades. Contractor shall be responsible for laying out site and buildings and setting stakes in complete conformity with the drawings.
- **Disposal of Cleared Materials:** Dismantled materials and other refuse resulting from the clearing operations shall be disposed of by removing from the site at the Contractor's expense. Materials shall be disposed outside the limits of the project site

CONCRETE AND REINFORCED CONCRETE

A. GENERAL

Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given other trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.

B. MATERIALS

1. Cement for the concrete shall conform to the requirements of specifications for Portland Cement (ASTM C-150) (Union, Republic, Pacific Cement only).
2. Water used in mixing concrete shall be clean and free from other injurious amounts of oils, acids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.
3. **Fine Aggregates/Sand shall consist of hard, tough, durable, uncoated**, and clean particles, or S-1. The shape of the particles shall be generally rounded or cubicle and reasonably free from flat or elongated particles. The stipulated percentages of fines in the sand shall be obtained either by the processing of natural sand or by the production of a suitably graded manufactured sand. Signs of more than 10% soil content for every delivery shall be rejected.
4. Coarse Aggregates shall consist of WASHED AGGREGATES. Coarse aggregates shall consist of hard, tough, durable, clean particles. The size of coarse aggregates to be used in the various parts of the work shall be ¾" for all concreting work.
5. Gravel base for footings, footing tie beams, shall be compacted and could be bigger (1" and above) in size.

Gravel bedding shall be 0.05 m. thick, and 1" in size.

C. PROPORTIONING AND MIXING

1. **Proportions** of all materials entering into the concrete shall be as follows:

Mix	Cement	Sand	Gravel
Class AA	1	2	3
Class A	1	2	4
Class B	1	2-1/2	5
Class C	1	3	6

2. **Class of Concrete** – unless otherwise specified/indicated in the plans, concrete mix shall be Class A, and shall have a 28-day strength of 3000 psi, for all concrete work (with "fly ash" additive).

3. **Mixing** – concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates. In the absence of a concrete mixer, manual mixing is allowed, provided sampling shall be done 3 days before pouring (to attain good result).

4. **Slump Test & Cylinder Samples.** Slump test shall be conducted before pouring of mixed concrete. Use standard slump mold, taken in 3 layers, rodded separately by a 6 mm rod 25 times. Slump should be within 15 cm (max) and 7.5 cm (min). Concrete samples in cylinders shall be taken for every batch of concrete mix (footing, columns, beams, and slabs) taken in three (3) samples each. Sampling shall be taken by trained engineers and subsequently cured and dried properly (in a moist atmosphere at not more than 21^{o} C to attain accurate results). Test should be done at 7 and 28 day-period.

D. FORMS

1. **General** – Forms shall be used wherever necessary to confine the concrete and shape it to the required lines, or to prevent the concrete of contamination with materials caving from the adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss of mortar from the concrete. Nine (9) mm form grade plywood is recommended for all forming works to prevent defects during concrete pouring.

2. **Cleaning and Oiling of Forms.** Before placing the concrete, the contact surfaces of the form shall be cleansed from encrustations of mortar, the grout of other foreign materials, and shall be coated with a commercial form of oil that will effectively prevent sticking and will not stain the concrete surfaces.

3. **Removal of Forms.** Forms shall be removed in a manner, which will prevent damage to the concrete. Forms shall not be removed without approval from the Owner. Any repair to the surface imperfections shall be performed at once and airing shall be started as soon as the surface is sufficiently hard to prevent further damage.

E. PLACING REINFORCEMENT

Steel reinforcement shall be provided as indicated, together with all necessary wire ties, chairs, spacers, supported and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from loose, flaky rust and scale, oil, grease, clay, and other coating and foreign substances that would reduce or destroy its bond with concrete.

As a rule, all concrete hollow blocks partitions/walls shall be reinforced with a minimum size of 10 mm deformed bars spaced at 600 mm on center both ways. All reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers, and ties. Such supports shall be of sufficient strength to maintain the operation, or contribute in any way, to the discoloration or deterioration of the concrete. All structural steel support shall conform to the approved plans. Design shown in the bid bulletins shall prevail over those of the previously issued original plans.

F. CONVEYING AND PLACING CONCRETE

1. **Conveying Concrete**. Concrete shall be conveyed form mixer to forms as rapidly as practicable by methods, which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.

2. **Placing.** Placing concrete shall be worked readily into the corners and angles of the forms

and around all reinforcement and embedded items without permitting the material to segregate. Concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequent segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed. The discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.

3. **Time Interval between Mixing and Placing.** Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes.
4. **Consolidation of Concrete**. Concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by hand spading and tamping. Vibrators shall not be inserted into lower course that have commenced initial set; and reinforcement embedded in concrete beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall be by hand spading, and tamping, and vibrators shall not be used.

5. **Placing Concrete.** Through Reinforcement. In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the form makes placing difficult, a layer of mortar of the same cement-sand ratios as used in concrete shall be first deposited to cover the surface.

6. During the pouring of concrete, the Owner's Representatives shall be present.

G. CURING

1. **General.** All concrete shall be moist cured for a period not less than 7 consecutive days by an approved method or combination applicable to local conditions.

2. **Moist curing.** The surface of the concrete shall be kept continuously wet by covering with burlap, plastic, or other approved materials thoroughly saturated with water and covering wet spraying or intermittent hosing.

H. FINISHING

1. Concrete surfaces shall be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line, and shall produce correct appearance except for minor defects which can be easily corrected.
2. **Concrete Slabs on Fill**. Concrete slabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of overlaying slab except as otherwise indicated.

I. POURING PERMIT REQUIRED

All concrete pouring shall be approved by the project engineer/Implementing Office. The Contractor must accomplish the prescribed form indicating the details of the pouring, date, time, duration, list of manpower, engineer-in-charge, psi requirement, quantity and position of rebars, etc. Pouring permit must be approved by the Project Engineer before any pouring activity is made. No permit, no pouring.

STEEL/STEEL WORKS & REINFORCEMENTS

1. **Markings.** Reinforcing steel bars to be used for PhilRice Projects shall bear the distinctive markings identifying the manufacturer by their initials, bar size number, including the type of steel such as:

N	= for Billet
A	= for Axial
R	= for rail steel

2. Reinforcing Bars shall conform to the requirements of the ASTM standard specifications for Billet Steel Bars for concrete reinforcement (A15-625) and to specifications for minimum requirements for the deformed steel bars for concrete reinforcement (A 305-56).

All secondary ties such, as stirrups, spirals and inserts may be plain bars. The main reinforcing bars shall be as follows:

No. 3 (3/8") 10mm	(275 MPa) 40,000 psi min. yield strength
No. 4 (½") 12mm	(275 MPa) 40,000 psi min. yield strength
No. 5 (5/8") 16mm	(414 MPa) 60,000 psi min. yield strength
No. 6 (3/8") 20mm	- do -
No. 7 (7/8") 22mm	- do -
No. 8 (1") 25mm	- do -

3. Bar Spacing. The ACI Code on bar spacing specifically provides that:

a. The minimum clear distances between the adjacent steel bars shall not be less than the normal diameter of the bars or 25 mm for column. This requirement was increased to 1-1/2 bar diameter or 4 centimeters.

b. Where beam reinforcements are placed in 2 or more layers, the clear distance between layers must not be less than 25 mm or 1 inch and the bars in the upper layer should be placed directly above those in the bottom layers.

c. In walls and slabs, other than the concrete joist construction, the principal reinforcement shall be spaced not farther apart than three times the wall or slab thickness, nor more than 45 cm.

d. The clear spacing between spirals shall not exceed 7.5 centimeters or less than 25 cm having a minimum diameter of 10 mm. Spiral splices shall be 48 bar diameter minimum but not less than 30 centimeters or welded. Lateral ties shall be at least 10 mm spaced not to exceed 16 times the longitudinal bar diameter or 48 ties bar diameter or the least dimension of the column.

e. Shrinkage and temperature reinforcement shall not be placed farther apart than 5 times the slab thickness nor more than 45 cm.

4. Minimum Covering of Bars

a. For concrete slabs permanently in contact with the earth: maximum of 80mm; minimum of 75mm.

b. Exposed to earth or weather: maximum of 50mm, minimum of 40mm.

c. Not exposed to weather nor in contact with the ground:

Slab, walls, and joists – maximum 40mm, minimum 20mm;
Beams, girders, and columns – minimum 40mm.

5. Number of Reinforcements

Refer to the structural schedule of reinforcements, schedule of beams, footings, columns, and slabs.

As a rule, the ground floor concrete slab shall be reinforced with 10 mm - deformed bars spaced at 450 mm on center both ways. It shall be connected to the walls with 10 mm dowels spaced at 600 mm on center.

6. Materials Testing

All structural steel reinforcement shall be taken every batch of delivery and shall be subject to tensile strength by Government Testing Laboratories or from private testing laboratories (Geotechniks, etc.) accredited by the DPWH.

Steel bars must pass the standard test before any steel works shall be commenced. All billings submitted by the Contractor for all civil works must be accompanied by a certificate of laboratory test for all structural steel, with passing mark.

METAL WORKS

A. SCOPE of WORK

The work consists of furnishing of all materials and labor, tools and equipment, and all necessary services to complete all structural steel works for the footings and columns, roof framings, structural web beams, and other reinforcements.

B. MATERIALS and WORKMANSHIP

1. Certified mill test reports or certified reports of tests made by the fabricators in accordance with ASTM A6 and the governing specifications shall constitute sufficient evidence of conformity with ASTM specifications. Additionally, the fabricator shall, if requested, provide as affidavit stating that the structural steel furnished meets the requirements of the grade specified.

2. Unidentified steel, if free from surface imperfections, may be used for parts of minor importance, or for unimportant details, where the precise physical properties of the steel and its weld ability would not affect the strength of the structure.

3. Other Metals. Galvanized Iron treated pipes shall conform to standard specifications and shall bear the manufacturer's mill test report.

4. Filler Metal for Welding. Welding electrodes for manual shielded metal arch welding shall conform to the Specification for Mild Steel Covered Arc Welding Electrodes, AWS A5.1, latest edition, or the Specification for Low-Alloy Steel Covered Arc-Welding Electrodes, AWS A5.5. latest edition. Bare electrodes and granular flux used in the submerged-arc process shall conform to F60 or F70 AWS-flux classifications of the Specification for Bars Mild Steel Electrodes and Fluxes for Submerged Arc Welding, AWS A5.17, latest edition.

5. All materials shall conform to the requirement in terms of size, mill test reports and quality test certificate issued by "Geotechniks" and other material testing laboratories accredited by the Bureau of Standards and the DPWH. Only certified welders shall perform all welding works. A certified welder's certificate shall be presented to the Owner's Representative for approval before welding works shall commence.

6. All metal and steel supplies shall be stored in elevated platforms, and covered to protect the material from rain and other materials/liquids, which may cause rust and corrosion.

7. All metal parts shall be properly cleaned and rough welding marks must be removed by grinding to remove rough and uneven surfaces. Primer painting shall follow using epoxy paint.

CARPENTRY

A. ROUGH CARPENTRY

1. General

a. Scope - This section includes all labor, materials and equipment and satisfactory performance of all operations necessary to complete rough carpentry, bracing and framing works as indicated in drawings and these specifications.

Include in the work, plates, straps, joints, hangers, rods, dowels, rough hardware, fasteners and other miscellaneous iron and steel items pertinent to rough carpentry work.

b. Storage and Protection - Stack framing lumber and plywood to ensure against deformation and maintain proper ventilation. Protect lumber and plywood from dampness and other elements. Lumber in contact with concrete or masonry shall be coated with approved preservative.

c. General Requirements

- **Quality of Lumber:** Use lumber of best grade available for the respective kinds for various parts of work. Lumber must be well-seasoned, thoroughly dry and free from loose or unsound knots, cups, shakes and other imperfections.

- **Substitution of Lumber:** Written approval from the Implementing Office is required in substituting the kind of lumber specified on plans. **Substitution made without prior approval will be rejected, removed and changed at the Contractor's expense.**

2. Products

a. Lumber - Use as specified on plans/drawings.

b. Fasteners

- **Nails** - Use locally manufactured common wire nails, smooth shank and zinc-coated.

- **Screws** - Use the best available commercial quality, brass or chromium plated.

- **Metal Anchors** - Use as indicated in the plans.

3. Execution

Installation - Framing shall be cut square on bearings, closely fitted accurately set to required lines and levels and rigidly secured in place.

B. FINISHING CARPENTRY

1. **General**

   a. **Scope** - This section includes all labor, materials, equipment and satisfactory performance of all operations necessary to complete all finishing carpentry and millwork indicated on plans and specifications.

   b. **General Requirements**

   - **Delivery and Storage:** Deliver materials to site in undamaged condition. Stack lumber and millwork to ensure proper ventilation and drainage. Protect materials against dampness during and after delivery. Store under cover in well-ventilated enclosure, not exposed to extreme changes of temperature and humidity. Do not store finished lumber and millwork in buildings until concrete, masonry and plaster are dry.

   - **Sizes and Pattern:** Work lumber to patter or shapes indicated. Shaped material shall conform to the standard patterns indicated in current grading rules for the species. Coordinate work with all other related trades.

2. **Products**

   Lumber, plywood/plyboard used shall be **as indicated in the plans/drawings.**

3. **Execution**

   a. **Workmanship:** All wood finish and millwork panel door shall be true to details, clean and sharply defined. Panels must be set to allow for free movement in case of swelling and shrinkage. Means of fastening various parts together shall be concealed.

   b. **Finish:**

   Mill, fabricate and erect interior finish as indicated on the drawings. Machine-sand at the mill and hand-sand smooth at the job site.

   Interior trim set against concrete, masonry or wood shall be separated with six (6) millimeters (1/4 inch) stone cut joints.

   Intersecting plywood veneers or plywood panels shall be finished with a corner trim of wood with same species and finish as the plywood.

   Make joints tight and in a manner to conceal shrinkage. Secure trim with fine finishing nails, screws or glue where required.

   Set nails for putty stopping.

   Window and door trim shall be single length.

   Miter mouldings at corners, cope at angles.

   c. **Wood Door Jambs and Heads:** Set door frames plumb and level and brace until built-in.

Anchor wood frames to masonry with approved metal anchors on each side of the jamb. Place top and bottom anchors 20 centimeters (8 inches) from head to floor.

c. **Hardware Installation:** Accurately fit and install all finished hardware items required. If surface-applied hardware is fitted and applied before painting, remove all such item, except burrs, and re-install after painting is complete.

DOORS AND WINDOWS

A. GENERAL

1. Scope - This section includes all labor, materials, equipment and the performance of all operations necessary to complete fabrication and installation of all doors and windows as indicated on drawings and specifications.

2. Submittals

a. Shop Drawings: Before placing orders and start of fabrication and when called for by the Implementing Office, the Contractor shall submit to the Implementing Office for approval, shop drawings of all wooden doors and windows including details of section and hardware.

b. Cuts and Samples: Furnish for approval, cuts, descriptive material and samples showing each type of door and window included. Show sizes, thickness, construction, methods of assembly, sticking and all other necessary information.

3. General Requirements

a. Storage and Protection: Protect doors, windows and frames against damage and dampness. Store them under cover in a well-ventilated place where they will not be exposed to extreme changes in temperature and humidity. Do not store doors, windows and frames in any place under construction until concrete, masonry work and plaster are dry. Adequately protect doors from scratches and other stains with heavy building paper.

b. Designs, Sizes, and Thickness: Use door and window designs, sizes and thickness as indicated or scheduled. Wood doors shall have an overall thickness of 50 mm unless otherwise specified by the Implementing Office.

B. PRODUCTS

Refer to the **Schedule of Doors and Windows** for materials to be used

C. HARDWARE

1. General

a. Scope – This section includes all materials, labor, equipment and performance of all operations necessary to complete furnish and installation of all building hardware required to:

- ensure rigidity of joints/connections of the different parts of the structure; and

- equip in a satisfactory operating condition parts of the structure such as doors, windows, cabinets, lockers and other similar operating parts as indicated in the plans/drawings

b. Submittals – The Contractor shall submit all necessary information to the Implementing Office prior to placing of order.

- **Manufacturer** Data such as catalog for every hardware item to be furnished, showing all finishes, sizes, catalog numbers and pictures, with all abbreviations fully explained shall be submitted as general information and reference.

- **Hardware Templates** for fabricated doors and windows shall be furnished to each fabricator to confirm that adequate provision will be done for proper installation of the hardware.

- **Operation and Maintenance Data** shall be provided and submitted to DA PhilRice showing all the hardware component part lists and maintenance instructions for each type supplied including the necessary wrenches of tools required.

c. Packaging and Marking – Each article shall be individually packaged in the manufacturer's commercial carton/container properly marked or labeled so as to be readily identified and delivered to the project site in the original manufacturer's container/package. All hardware shall be provided with fasteners necessary for the installation packed in the same container with the hardware.

d. Storage and Protection – Hardware shall be properly stored in a dry and secured place. It shall be protected from damage at all times prior to and after installation.

2. Products

a. Materials

- **Rough Hardware:** All rough hardware such as nails, expansion bolts, lag screws and other related fasteners required for carpentry work shall be first class quality and locally available.

b. Finishing Hardware: All finishing hardware consisting of locksets, latches, bolts, and other devices, hinges and other similar hardware shall be first class quality available locally and conforming with the following specifications.

- **Cylindrical Lockset:** Door locks appropriate for particular functions shall be of durable construction, preferably the product of single reputable manufacturer for consistent quality and master keying. Cylindrical lockset for swing wood door shall of sturdy construction and knob design. The cylindrical case shall be made of steel, zinc-coated and dichromate dip.

  The knobs, latch, strike and pin tumbler assembly shall be cast brass or bronze. The spring and spindle shall be steel, zinc-coated. The pins and the key, shall be nickel-silver. The latch, with a minimum throw of 16mm, shall be retracted by knob from either side except when the outside knob is locked by key in the outside knob or by the turn/push button on the inside knob.

- **Hinge:** Unless otherwise indicated in the plans/drawings, hinge shall be brass coated wrought iron steel for interior doors and wrought bronze for exterior doors with non-rising loose steel pins with button tips and mounting screws of the same materials.

3. Execution

a. Installation

All hardware shall be installed in a neat workmanship manner following the manufacturer's instructions manual to fit details as indicated in the plans.

Except as indicated or specified otherwise, fasteners furnished with the hardware shall be used to fasten hardware in place.

After installation works are completed the hardware shall be protected from paints, stains, blemishes and other damage until the work are properly turned over and accepted.

All hardware shall be properly checked and adjusted in the presence of the Implementing Office representative/Project Supervisor and all hinges, locks, catches, bolts, pulls, closers and other miscellaneous items shall properly operate.

After hardware are properly checked and adjusted, keys shall be properly identified with **key tags** and **turned over to the Implementing Office**.

b. Keying – Locks shall be keyed in sets and subsets. Furnish a total of four (4) keys for each set.

ROOFING AND TINSMITHRY WORKS

A. MATERIALS

0.60mm thk. Pre-painted Long Span Single Rib Type Roofing ,the roof shall be covered with Pre-painted long span roofing sheets .

B. INSTALLATION WORKMANSHIP

1. Sheathing. Roofing sheets shall be connected to the steel purlins by using self-tapping roof metal screws or "Tekscrews". Spacing of roof screws shall be for every corrugation of the roof. Installation of roof metal screws shall be mechanized, using power drill, or as recommended by the roofing manufacturer. Seal all other punctures w/ "VulcaSeal" and Sealant retouch with roof retouching paint.

2. Flashings, Ridge Rolls and Fascia. Shall be prefabricated fascia as per design in the drawings. It shall be installed at the edge of the roofing. The ridge rolls, flashing and fascia shall be riveted to the roofing sheets.

FINISHES

A. PAINTING

1. General

a. Scope – This includes all materials, labor, equipment and performance of all operations to complete painting and varnishing work as indicated on drawings and specifications herein.

b. Submittals

- **Samples and Color Scheme:** Submit each kind of materials to the Implementing Office **for approval at least ten (10) days before painting works**. Match these samples with the delivered materials prior to use. Reject said materials if found inferior with respect to approved samples.
- **Test Panels:** Sample panels of selected color or shade shall be prepared on 30cm × 30 cm (1'×1') plywood panels for approval of the Implementing Office.

- **Certificate:** Submit to the Implementing Office the manufacturer's certificate of origin, quality of paints including quantity purchased and instructions, if any.

c. Delivery and Storage – Deliver at job site in original containers with label containing manufacturer's name, color of paint and manufacturer's instructions, if any, intact and seals unbroken. Storage of paints and paint materials at the site shall be restricted to locations designated by the Implementing Office representative/Project Supervisor and such place shall be kept neat and clean at all time. Necessary precaution to avoid fire must be observed by removing oily rags, waste, etc. at the end of daily work.

d. Protection – Provide all drop cloth and other coverings requisite to protection of floors, walls, aluminum, glass finishes and other works.

2. Products

a. Materials

- **Painting Materials** shall conform to requirements of the standard specifications of the Standardization Committee on Supplies and the National Institute of Science and Technology. All paint and paint materials shall be BOYSEN, DAVIES, or any approved equal.

- **Tinting Colors** shall be first grade quality, pigment ground in alkyd resin that disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and tinting color to effect good paint body.

- **Concrete Neutralizer** shall be first grade quality concentrate diluted with clean water and applied as surface conditioner of new interior and exterior walls thus improving paint adhesion and durability.

- **Silicon Water Repellant** shall be transparent water shield especially formulated to repel rain and moisture on exterior masonry surfaces.

- **Patching Compound** shall be the fine powder type material like calciumine that can be mixed into putty consistency, with oil base primers and paints to fill minor surface dents and imperfections.

- **Varnish** shall be a homogenous solution of resin, drying oil, drier and solvent. It shall be extremely durable clear coating, highly resistant to wear and tear without cracking, peeling, whitening, spotting, etc. with minimum loss of gloss for a maximum period of time.

- **Lacquer** shall be any type of organic coating that dries rapidly and solely by evaporation of the solvent. Typical solvents are acetates, alcohols and ketones. Although lacquers were generally based on intrecellulose, manufacturers currently use vinyl resin, plasticizers and reacted drying oils to improve adhesion and elasticity.

- **Shellac** shall be a solution of refined lac resin in denatured alcohol. It dries by evaporation of the alcohol. The resin is generally furnished in orange and bleached grades.

- **Sanding Sealer** shall be quick drying lacquer, formulated to provide quick dry, good holdout of succeeding coats, and containing sanding agents such as zinc stearate to allow dry sanding of sealer.

- **Glazing Putty** shall be alkyd-type product for filling minor surface unevenness.

- **Natural Wood Filler:** Wood paste filler shall be quality filler for filling and sealing open grain of interior wood. It shall produce a level finish for following coats of paint varnish/lacquer and other related products.

b. Schedule

- **Concrete walls** (interior and exterior)
  One coat flat latex
  Two coats semi-gloss latex

- **Metal surfaces**
  Two coats epoxy primer
  One coat quick drying enamel

- **Ceiling**
  Three coats flat wall enamel

3. Execution

a. Preparation of Surfaces – All surfaces shall be in proper condition to receive the finish.

- **Woodwork** Surfaces shall be hand-sanded smooth and dusted clean. All knotholes, pitch pockets or sappy portions shall be sealed with natural wood filler. Nail holes, cracks or defects shall be carefully puttied after the first coat, matching the color of paint.

- **Interior Woodwork:** Surfaces shall be sandpapered between coats. Dust off thoroughly afterwards. Areas affected by molds, mildew and fungus should be treated with a bleaching solution and dried overnight. Cracks, holes of

imperfections in plaster shall be filled with patching compound and smoothed off to match adjoining surfaces.

- **Concrete and Masonry Surfaces:** Surfaces must be removed of all loose grid or mortar, contaminants, dirt, grease, oil, dust and other deposits. Surfaces shall be coated with concrete neutralizer, apply either with brush or spray solution of one kilogram of zinc sulfate to four and one-half liters (1 gallon) of water. Allow to dry before any painting primer coat is applied. When surface is dried apply first coating. Hairline cracks and unevenness shall be patched and sealed with approved putty or patching compound. After defects are corrected apply the finish coats as specified on the Plans (color scheme approved).

- **Metal:** Metal surfaces shall be clean, dry and free from millscale and rust. Remove all grease and oil from surfaces. Rusty metal exposed to weathering for some time must be sanded, wire brushed or scraped. Wash unprimed galvanized metal with etching solution and allow it to dry. Metal must be completely dry before application of applicable primer.

  In addition, the Contractor shall undertake the following:

  - Voids, cracks, nick etc. will be repaired with proper patching material and finished flushed with surrounding surfaces.

  - Marred or damaged shop coats on metal shall be spot primed with appropriate metal primer.

  - Painting and varnishing works shall not commence when it is too hot or cold.
  - Allow appropriate ventilation during application and drying period.

  - All hardware will be fitted and removed or protected prior to painting and varnishing works.

b. Application

- Paints when applied by brush shall become non-fluid, thick enough to lay down as adequate film of wet paint. Brush marks shall flaw out after application of paint.

- Paints made for application by roller must be similar to brushing paint. It must be non-sticky when thinned to spraying viscosity so that it will break up easily into droplets.

- Paint is atomized by high pressure pumping rather than broken up by the large volume of air mixed with it. This procedure changes the required properties of paint.

c. Mixing and Thinning – At the time of application, paint shall show no sign of deterioration. Paint shall be thoroughly stirred, strained and kept at a uniform consistency during application. Paints of different manufacture shall not be mixed together. When thinning is necessary, this may be done immediately prior to application in accordance with the manufacturer's directions, but not in excess of one (1) pint of suitable thinner per gallon of the paint

d. Workmanship – All paints shall be evenly applied. Coats shall be of proper consistency and well brushed out so as to show a minimum of brush marks. All coats shall be thoroughly dry before the succeeding coat is applied. Where surfaces are

not fully covered or cannot be satisfactorily finished in the number of coats as may be required shall be applied to attain the desired evenness of surface without extra cost to PhilRice. Where surface is not in proper condition to receive the coat, the Implementing Office shall be notified immediately. Work on the questioned portion(s) shall not start until clearance to proceed is ordered by the Implementing Officer. Hardware, lighting fixture and other similar item shall be removed or protected during the painting, varnishing and related work operations and re-installed after completion of the work.

e. Cleaning – All cloths and cotton waste, which constitute fire hazards shall be placed in metal containers or destroyed at the end of daily works. Upon completion of the work, all staging, scaffolding and paint containers shall be removed. **Paint drips, oil, or stains on adjacent surfaces shall be removed** and the entire job left clean and acceptable to the Implementing Office.

ELECTRICAL WORKS

A. GENERAL

1. **Scope** – The work under this section consists of the furnishing of all materials, labor, equipment, tools and all services necessary to complete and make ready for operation electrical works as indicated on electrical plans and in accordance with the Drawings, Specifications and the Contract.

The work shall include the furnishing and installing of the following each complete and in proper operating condition unless otherwise stated in this specification:

a. Wiring system for branch circuits, signal circuits feeder wires, sub feeders including respective conduits, fitting wire gutters, pull boxes, junction boxes, utility boxes and any other type of box and supports and accessories required and/or as indicated on the Drawings;

b. All the necessary feeder and branch circuit with all the necessary conductors, conduits, fittings and other items as indicated on the Drawings;

c. All the necessary wiring devices, such as utilization outlets, wall switches, receptacles all complete with their appropriate cover plates;

d. All defective lighting fixtures and accessories including necessary supports;

e. All conduits, boxes, wires and equipment;

f. Grounding system as show on the Drawings;

g. Supply and installation of all materials not shown on the Drawings nor mentioned in this Specification but are necessary to complete the project.

2. **Codes and Regulations**

a. The Work under this section shall be executed in accordance with the latest requirements of the Building Code of the Philippines, Philippine Electric Code, rules and regulations of local ordinances, power utility company, rules and regulations of other governing authorities and with Republic Act No. 7920 as applied or enforced in the locality.

b. The requirements of the above-mentioned governing codes and the requirements of the companies having involvement or participation are hereby made part of this specification and the Contractor is required to comply with the same. This does not relieve the Contractor from complying with the requirements of the specification or

drawings in excess of the above laws and ordinances, codes and requirements, which are not prohibited by the same.

3. **Guarantee**

   a. The Contractor shall guarantee that the electrical system is free from all grounds and defective materials and workmanship for a period of one (1) year from the date of acceptance of the work. All defects arising within the guarantee period shall be remedied by the Contractor at his own expense.

   b. The Contractor shall indemnify and save harmless the Implementing Office and PhilRice from all claims, suit actions, liabilities for damages arising from injuries, disabilities or loss of life to persons or damage to public or private properties resulting from fault or any act of Contractor or his representative in the execution of this work.

   c. The partial acceptance of the work for the purpose of making partial payments, based on the estimated cost satisfactorily completed by the Electrical Contractor, shall not be considered as final acceptance of that portion of the work.

4. **Drawings and Specifications**

   a. The Drawings and Specifications are meant to be complementary to each other and what is called for by one shall be binding as if called for by both.

   b. Any apparent conflict between the Drawings and Specifications and any controversial or unclear points in either shall be referred to the Implementing Office for final decision.

   c. All **dimensions and locations shown on the Plans are approximate and shall be verified in the field**, as actual locations, distances and levels are **governed by actual conditions.**

   d. No deviation from the plans shall be made unless **with written consent or approval** from the Implementing Office and/or PhilRice.

   e. The Contractor shall keep an active record of the actual installation works during the progress of the job.

   This shall become the reference for the preparation of the **"AS-BUILT" Plans**, which shall include **all pertinent information, complete in all aspects of the actual installation, and all new information not originally shown in the contract drawings.**

   The "AS-BUILT" plans shall be prepared by the Contractor at his expense and shall be submitted to the Implementing Office **for approval upon the completion of the work.**

   Upon completion of work as described herein, the Contractor shall furnish PhilRice **three (3) copies of the "AS BUILT" plans**, signed and sealed by the Contractor's Registered Professional Electrical Engineer, **for future reference and maintenance purpose.**

5. **Samples – The Contractor shall submit a sample of any item he intends to install or use in this project to the Implementing Office for approval.**

B. PRODUCTS

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

a. Conduits shall be PVC Schedule 40. Enamel coated steel conduits and conduits with rough inner surfaces are not acceptable.

- All boxes including junction and pull boxes shall be of sufficient sizes to provide free space for all conductors enclosed in the box, in addition to the fittings, such as switch mechanism and receptacles that may be contained in the box.

- All junction boxes shall be fitted with standard flat metal box covers.

b. Conduit Boxes shall be code gauge steel and galvanized. Outlet boxes shall be galvanized pressed steel of standard make. In general, outlet boxes shall be at least 100 mm square or octagonal, 53 mm deep and 16 mm minimum gauge.

- Convenience and wall switch outlet boxes shall be gauge #16 of the 101 mm rectangular, deep, flush type, except in case where 10-amp., or 20-amps., switches shall be mounted in gangs of two or three therefore, the proper sizes of boxes and cover plates shall be used.

c. Conduit Fittings: All conduit fittings such as locknuts and bushings shall be galvanized of standard make. Under no condition shall black enamel conduit fittings be permitted in any part of the installation.

d. Wires: All wires shall be copper, soft drawn and annealed, smooth and of cylindrical form and shall be centrally located inside the insulation.

e. Wiring Devices: All wiring devices shall be standard products of reputable electrical manufacturers. Wall switches shall be rated at least 10A, 250 volts and shall be spring operated, flush, tumbler type. Duplex convenience receptacles shall be rated at least 15A, 250 volts, flush, parallel slots. Single heavy-duty receptacles shall be rated at least 20A 250 volts, 3-wire, flush, polarized type. Only one (1) brand wiring devices shall be used for the project.

Suitable single-pole and three-way switches of the flush tumbler type with appropriate bakelite cover plates shall be furnished and installed as indicated on the Drawings. Wall switches intended to control more than eleven or 40-watt fluorescent lamps using high power factor ballasts shall be rated no less than 5-amp., 250 volts. All duplex receptacles shall be rated no less than 10-amps., 250 volts A.C. grounding type and shall be for flush mounting. Interchangeable type receptacles shall not be acceptable.

f. Lighting Fixtures: Lighting outlets unless otherwise specified shall be furnished and installed by the Contractor. **All fixtures installed shall be as required on Plans**, of good quality materials and approved by the Bureau of Product Standards (BPS).

g. Insulation: All splices shall be properly insulated using 3M Brand electrical type. Application of insulation tape shall be equivalent to the insulation of the wire concerned.

C. EXECUTION

1. Workmanship – All works throughout shall be executed in the best practice in a workmanlike manner by qualified and experienced electricians **under the immediate supervision of a duly licensed Electrical Engineer.**

a. Conduits

- Conduits should be cut square with a hacksaw and reamed. Bends shall be made with the required radius. In making bends, only conduit bending apparatus will be used. The use of a pipe tee or vise for bending conduits shall not be permitted. Conduits, which have been crushed, deformed, or flattened, shall not be installed. No running thread shall be allowed. Conduit runs crossing construction joints of the building shall be provided with standard expansion fittings of the approved type.
- No conduits shall be used in any system smaller than 15 mm diameter electric trade size nor shall have more than four (4) 90-degree bends in any one run and where necessary, pull boxes shall be provided.
- All ends of conduits, which are left empty in cabinets and conduit boxes shall be plugged with lead or approved pipe caps so as to prevent the entrance of white ants and dirt within the conduit system. Pull wires shall be inserted in the empty ducts before they are closed with lead or pipe caps and shall be left therein for future use.
- All splices, taps and junctions, except those for feeder and service conductors, shall be soldered or provided with spring lock type connectors, with rubber tape and protected with friction tape.

b. Conduit Boxes and Fittings

- Provide conduit boxes for pulling and splicing wires and outlet boxes for installation of wiring devices.

- As a rule, provide junction boxes or pull boxes in all runs greater than 30 meters in length, for horizontal runs. For other lengths, provide boxes as required for splices or pulling. Pull boxes shall be installed in inconspicuous but accessible locations.

- Support boxes independently of conduits entering by means of bolts, red hangers or other suitable means.

- Conduit boxes shall be installed plumb and securely fastened. They shall be set flushed with the surface of the structure in which they are installed where conduits are run concealed.

- All convenience and wall switch outlet boxes for concealed conduit work shall be deep, rectangular flush type boxes. Four-inch octagonal flush type boxes shall be used for all ceiling light outlets and shall be of the deep type where three (3) or more conduits connect to a single box.

- All boxes shall be painted with antirust red lead paint after installation.

- All conduits shall be lifted with approved standard galvanized bushing and locknuts where they enter cabinets and conduit boxes.

- Junction and pull boxes of code gauge steel shall be provided as indicated or as required to facilitate pulling of wires and cables.

c. Wires and Wiring Devices

- Conductors or wires shall not be drawn in conduits until after the cement plaster is dry and the conduits are thoroughly cleaned and free from dirt and moisture. In drawing wires into conduits, sufficient slack shall be allowed to permit easy

connections for fixtures, switches, receptacles and other wiring devices without the use of additional splices.

- All conductors of convenience outlets and lighting branch circuit homeruns shall be wired with a minimum of 3.5 mm in size. Circuit homeruns to panel boards shall not be smaller than 3.5 mm but all homeruns to panel board more than 30 meters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm in size.

- All joints, taps and splices on wires larger than 14 mm shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation not less than that of the conductors.

- No splices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes or pull boxes. All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices and taped with rubber and PVC tapes in a manner, which will make their insulation as that of the conductor.

- All wall switches and receptacles shall be fitted with standard bakelite face plate covers. Device plates for flush mounting shall be installed with all four (4) edges in continuous contact with finished wall surfaces without the use of coiled wire or similar devices. Plaster filling will not be permitted. Plates installed in wet locations shall be gasketed.

- When more than one switch or device is indicated in a single location, gang plate shall be used.

d. Grounding System: All grounding system installation shall be executed in accordance with the approved plans. Grounding system shall include building perimeter ground wires, ground rods, clamps, connectors, ground wells and ground wire taps as shown in the approved design.

e. Panelboards: Standard panels and cabinets shall be used and assembled on the job. All panels shall be of dead front construction furnished with trims for flush or surface mounting as required. The Contractor shall install as indicated in the Drawings the necessary panelboards on the multi-breaker type including the breaker and using copper bus bars.

A panel directory shall be provided for each panel board complete with necessary data. All circuit breakers of panelboards shall be marked to its actual phase connection. Directory shall be typewritten and placed inside of panel door.

f. Lighting System: Install as indicated on the drawings.

2. Test and Guarantee

a. Upon completion of the electrical construction work, the Contractor shall provide all test equipment and personnel and to submit written copies of all test results.

b. The Contractor shall guarantee the electrical installation are done and in accordance with the approved plans and specifications. The Contractor shall guarantee that the electrical systems are free from all grounds and from all defective workmanship and materials and will remain for a period of one year from the date of acceptance of works. Any defect shall be remedied by the Contractor at his own expense.

TILEWORKS

Description

This Item shall consist of furnishing all granite/ceramic tiles cementitious materials, tools and equipment including labor required in undertaking the proper installation of walls and floor tiles as shown on the Plans and in accordance with this Specification.

Material Requirements

Granite/Ceramic tiles and trims shall be made of clay, or a mixture of clay and other materials which is called the body of the tile. Tile bodies are classified by ASTM C 242 as to their degree of water absorption. Ceramic tiles and trims are manufactured either by dust-presses process in which the clays are ground to dust mixed with a minimum of water shaped in steel dies and then fired or by plastic process in which the clays are made plastic by mixing with water, shaped by extrusion or in molds and then fired.

Glazed Tiles and Trims

Glazed tiles and trims shall have an impervious face of ceramic materials fused onto the body of the tiles and trims. The glazed surface may be clear white or colored depending on the color scheme approved by implementing Office. Standard glazes may be bright (glossy) seminally (Less glossy) matte (dull) or crystalline (mottled and textured; good resistance to abrasion). Glazed tiles are used principally for walls; crystalline glazed tiles may be used for floors provided however that these are used as light duty floors.

Unglazed Tiles

Unglazed tiles shall be hard dense tile of homogeneous composition. Its color and characteristics are determined by the materials used in the body, the method of manufacture and the thermal treatment. It is used primarily for floors and walks.

Trims

Trims are manufactured to match wall tile color, texture and to coordinate within the dimension. These are shape in various ceramic trim units such as caps, bases, coves, bullnoses corners, angles, etc. that are necessary for edging or making a transition between intersecting planes.

Accessories

Accessories some like soap holders and shall be wall mounted type with colors to reconcile with the color of the adjacent tiles.

Cement

Cement shall be Portland conforming to the specification requirements defined in item 700, Hydraulic Cement.

Sand

Sand shall be well graded fine aggregate clean river sand, free from soluble salts and organic impurities.

Construction Requirements

Tile work shall not be started until roughing-ins for plumbing, electrical and other trades have been completed and tested. The work of all other trades shall be protected from damage.

Surface Separation

a) Mortar mix for scratch coat and setting bed shall consist of one part Portland cement ¼ part lime and 3 parts sand by volume. Surface to receive tile must be level, true to elevation, dry, free from dirt, oil and other ointments. Allow at least seven days curing of scratch coat and setting bed. Installation work shall not be allowed to proceed until unsatisfactory conditions are correct.
b) Bond coat shall be Portland cement paste.

Thoroughly dampen surfaces of masonry or concrete walls before scratch coat is applied.

On masonry or concrete surface first apply a thin coat with pressure, then bring it out sufficiently to compensate for the major irregularities of the surface to a thickness not less than 10mm at any point.

Evenly rate scratch coat to provide good mechanical key before the mortar mix has fully hardened.

Installation Procedure

Granite/Ceramic tiles shall be soaked in clean water prior to installation for a minimum of one hour.

Granite/Ceramic Glazed Floor Tiles

a) Before tile is applied the floor surface shall be tested for levelness or uniformity of slope by flooding it with water, area where water ponds are filled or levelled, shall be retested before the testing bed is applied.
b) Establish lines of borders and center of the walls at the field work in both directions to permit the patent to be laid with a minimum of cut tiles.
c) Clean concrete subfloor then moistens but do not soak. Then sprinkle dry cement over the surface and spread the mortar on the setting bed.
d) Apply and spread mortar mix for setting bed and tamp to assure good bond over the entire area to be laid with tile.
e) Pitch floor to drain as shown on Plans or as directed by the Engineer.
f) Allow the setting bed to set sufficiently to be worked over then spread a bond coat over the surface and lay tile in accordance with specifications/instructions.

Grouting and Pointing

Tiles shall have laid in place for at least 24 hours before grouting of joints is started. Grouting mortar shall be white Portland cement or blended with pigments to acquire the color appropriate for the ceramic tile.

Grouting mortar shall be applied over the tile by float or squeegee stroked diagonally across the joints. Remove excess mortar with a wet sponge stroked diagonally or in a circular motion after 12-15 minutes. Follow with a barely damp or dry sponge to remove remaining haze while smoothing all grouted joints.

Cleaning

a. Clean ceramic tile surfaces thoroughly as possible upon completion of grouting.
b. Remove all grout haze, observing tile manufacturers recommendations as to use of acid of chemical cleaners.
c. Rinse tile thoroughly with clean water before and after using chemical cleaners.
d. Polish surface of tile with soft cloth.

Protection from Construction Dirt

a. Apply a protective coat of neutral cleanser solution diluted with water in the proportion of 1:4 or 1 liter cleanser concentrate to one gallon water.
b. In addition, cover tile flooring with heavy-duty nonstaining construction paper, taped in place.
c. Just before final acceptance of the work to remove paper and rinse protective coat of neutral cleaner from tile surface. Do not let protective paper get from torn or removed.

Method of measurement

All works performed under this item shall be measured in square meters or areas actually laid with granite/ceramic tiles and accepted to the satisfaction of the Implementing in-charge.

OTHERS:

SIGNAGES AND MARKINGS.

The contractor shall provide all necessary signage's and markings before and during construction. All warning signs must be placed in areas where there are dangers in construction activity. Signage and Markings must be visible and readable and can easily be seen by people.

MOBILIZATION AND DEMOBILIZATION

The contractor upon receipt of the notice to proceed shall immediately mobilize and transport his plant, equipment, materials and employees to the site and demobilize or remove the same ate the completion of the project.

Section VII. Drawings

Section VIII. Bill of Quantities

BID PROPOSAL

PROJECT: **Conversion of Hazardous Waste Storage into Rice Milling Facility (Area 1) and Improvement of Chemical Storage Stocking Area (Area II)**

LOCATION: **PhilRice CES, Science City of Muñoz, Nueva Ecija**

_____
Company Name

_____
Name of Bidder

_____
Position

_____
Address of Bidder

_____
Signature of Bidder

(Submit in Duplicate)

_____
Date

Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

BID FORM

Date : _____

Project Identification No. : _____

To: [name and address of Procuring Entity]

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

a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: *[insert name of contract];*

b. We offer to execute the Works for this Contract in accordance with the PBDs;

c. The total price of our Bid in words and figures, excluding any discounts offered below is: *[insert information]*;

d. The discounts offered and the methodology for their application are: *[insert information]*;

e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties],* which are itemized herein and reflected in the detailed estimates,

f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;

g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines[1] for this purpose;

h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;

i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

k. We likewise certify/confirm that the undersigned, is the duly authorized

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[1] currently based on GPPB Resolution No. 09-2020

representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity*].*

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

Name: _____

Legal Capacity: _____

Signature: _____

Duly authorized to sign the Bid for and behalf of: _____

Date: _____

Project: **Conversion of Hazardous Waste Storage into Rice Milling Facility (Area 1) and Improvement of Chemical Storage Stocking Area (Area II)**

Location: **PhilRice CES, Science City of Muñoz, Nueva Ecija**
Subject: **Summary of Bid Proposal/Breakdown of Values of Work**

A. SCOPE OF WORK			
ITEM	**DESCRIPTION**	**PERCENTAGE**	**AMOUNT**
AREA I - Conversion of Hazardous Waste Storage into Rice Milling			
I.	SITE WORKS		
II.	CONCRETE WORKS		
III.	REINFORCING STEEL BARS		
IV.	MASONRY WORKS		
V.	TILE WORKS		
VI.	PAINTING WORKS		
VII.	CARPENTRY WORKS		
VIII.	ELECTRICAL WORKS		
IX.	PLUMBING WORKS		
X	DOORS AND WINDOWS		
XI.	OTHERS		
	SUB-TOTAL		
	TOTAL		
AREA II - Improvement of Chemical Storage Stocking Area			
I.	SITE WORKS		
II.	CONCRETE WORKS		
III.	REINFORCING STEEL BARS		
IV.	MASONRY WORKS		
V.	FORMWORKS		
VI.	TILE WORKS		
VII.	PAINTING WORKS		
VIII.	CARPENTRY WORKS		
IX.	STEEL AND ALUMINUM WORKS		
X.	ROOFING AND ROOF FRAMING WORKS		
XI.	ELECTRICAL WORKS		
XII.	PLUMBING WORKS		
XIII.	DOORS AND WINDOWS		
XIV.	OTHERS		
	SUB-TOTAL		
	TOTAL		
B. BREAKDOWN OF ESTIMATED EXPENDITURE			
AREA I - Conversion of Hazardous Waste Storage into Rice Milling			
I. DIRECT COST			
	MATERIAL COST	*Php*	
	LABOR COST + EQUIPMENT RENTAL COST	*Php*	

	TOTAL DIRECT COST	***Php***	
II. INDIRECT COST			
	PROFIT	*Php*	
	OCM	*Php*	
	TAX (5%)	*Php*	
	TOTAL INDIRECT COST	***Php***	
	TOTAL ESTIMATED PROJECT COST	***Php***	
AREA II - Improvement of Chemical Storage Stocking Area			
I. DIRECT COST			
	MATERIAL COST	*Php*	
	LABOR COST + EQUIPMENT RENTAL COST	*Php*	
	TOTAL DIRECT COST	***Php***	
II. INDIRECT COST			
	PROFIT	*Php*	
	OCM	*Php*	
	TAX (5%)	*Php*	
	TOTAL INDIRECT COST	***Php***	
	TOTAL ESTIMATED PROJECT COST	***Php***	
	GRAND TOTAL	***Php***	

Project : **Conversion of Hazardous Waste Storage into Rice Milling Facility and Improvement of Chemical Storage Stocking Area**
Subject : **Bill of Quantities**
Location : **PhilRice-CES, Brgy. Maligaya, Science City Of Muñoz, Nueva Ecija**

AREA 1 – Conversion of Hazardous Waste Storage into Rice Milling

FEATURES AND SCOPE OF WORKS

SITE WORKS
- Site clearing works
- Clearing of grounds prior concreting of pavement/pathwalk
- Demolition of masonry walls
- Removal of doors and windows
- Excavation works
- Backfilling, gravel bedding and compaction works
- Soil poisoning/treatment

CONCRETE WORKS
- Concreting of wall footing and concrete pathwalk/pavement

REINFORCING STEEL BARS
- Fabrication and installation of rebars for column footing and concrete pathwalk/pavement

MASONRY WORKS
- CHB laying
- Plastering works

TILE WORKS
- Installation of tiles for floor and wall of T&B area

PAINTING WORKS
- Painting of walls and ceiling
- Painting of all metal and steel members

CARPENTRY WORKS
- Installation of fiber cement board ceiling

ELECTRICAL WORKS
- Installation of electrical devices, lighting fixtures and wirings
- Supply and installation of ceiling mounted exhaust fan/dust extraction and collector bin / housing, emergency light, exit signage and fire extinguisher

PLUMBING WORKS
- Supply and installation of water closet, half-pedestal lavatory, shower set with hand dryer

DOORS AND WINDOWS
- Supply and installation of steel door, sliding glass door and PVC door for toilet
- Modification of existing steel door
- Supply and installation of windows

OTHERS
- Professional Fees / Permits / PPE'S / Signage / etc.

AREA II – Improvement of Chemical Storage Stocking Area

FEATURES AND SCOPE OF WORKS

SITE WORKS
- Site clearing works
- Removal of existing roofing, roof framing and steel wall
- Excavation for additional column and for vestibule column
- Excavation for preparation prior expansion of concrete service road
- Excavation prior application of termite control
- Backfilling, gravel bedding and compaction works

CONCRETE WORKS
- Concreting of column, column footing, beam, concrete topping and expansion of service road

REINFORCING STEEL BARS
- Fabrication and installation of rebars for column, column footing, beam, concrete topping and expansion of service road

MASONRY WORKS
- CHB laying
- Plastering works

FORMWORKS
- Fabrication and installation of forms for column, column footing and beam

TILE WORKS
- Installation of tiles for floor and wall of T&B area

PAINTING WORKS
- Painting of walls and ceiling
- Painting of all metal and steel members
- Painting of T&B door with duco white finish

CARPENTRY WORKS
- Installation of fiber cement board ceiling at interior and vestibule area
- Installation of spandrel ceiling at eaves area

STEEL AND ALUMINUM WORKS
- Fabrication and installation of steel matting wall partition
- Fabrication and installation of ACP cladding at vestibule area

ROOFING AND ROOF FRAMING
- Fabrication and installation of roof trusses
- Installation of C-purlins, roof insulation and roofing sheets including fascia board cover and S/S inside gutter

ELECTRICAL WORKS
- Installation of electrical devices, lighting fixtures and wirings including panel board and tapping of main line
- Supply and installation of wall mounted exhaust fan, emergency light and fire extinguisher

PLUMBING WORKS

- Supply and installation of water closet, half-pedestal lavatory, urinal and emergency eye shower set with complete accessories
- Lay-out of new water, drain and sewage line
- Construction of isolated catch basin for spill canal

DOORS AND WINDOWS
- Supply and installation of steel door with complete accessories and duco-paint finish
- Fabrication and installation of marine hollow core flush door, duco-white finish
- Supply and installation of awning type window

OTHERS
- Professional Fees / Permits / PPE'S / Signage / etc.
- Permits including application of building permit up to occupancy

AREA I - Conversion of Hazardous Waste Storage into Rice Milling

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	MATERIAL COST	LABOR + EQUIPMENT COST	ESTIMATED DIRECT COST	OCM	PROFIT	VAT	TOTAL INDIRECT COST	TOTAL	UNIT COST
I.	**SITE WORKS**											
	A. Site Clearing	1.00	lot									
	B. Excavation Works	23.00	cu.m.									
	C. Backfill, Gravel Bedding and Compaction Works	1.00	lot									
>	G1 Ordinary Gravel											

	D. Termite Control	1.00	lot									
>	Concentrated Soilguard Termicide											
Total - I			**Php**									
II.	**CONCRETE WORKS**											
>	Portland Cement, 40kgs/bag	9.20	cu.m.									
>	Washed Sand											
>	3/4 Crushed Gravel											
>	Consumables (Tansi, Grinding Disk, etc.)											
Total - II			**Php**									
III.	**REINFORCING STEEL BARS**											

>	Ø12 RSB x 6meters	474.62	kgs									
>	Ø10 RSB x 6meters											
>	Consumables (Tie Wire, Cutting Disk, Spacer, etc.)											
Total - II			**Php**									
IV.	**MASONRY WORKS**											
>	4" CHB	39.30	sq.m.									
>	Portland Cement, 40kgs/bag											
>	Washed Sand											
>	Ø10 RSB x 6meters											
>	Consumables (Tie Wire, Cutting Disk, Tansi, etc.)											
Total - IV			**Php**									

V.	**TILE WORKS**											
>	30cm x 60cm Ceramic Tiles	19.50	sq.m.									
>	Tile Adhesive											
>	Tile Grout 2kg/bag											
>	Consumables (Cutting Disk, Spacer, etc.)											
Total - VI			**Php**									
VI.	**PAINTING WORKS**											
	A. Wall and Ceiling	523.90	sq.m									
>	Flat Latex Paint											
>	Semi-gloss Latex Paint											
>	Putty (Spot)											
>	Putty Reducer											
	Masonry Neutralizer #44											

>	Consumables (Paint Brush, Paint Roller, Thinner, Rags, Masking Tape, Mesh Tape, etc.)											
	B. Roofing	95.65	sq.m									
>	Roofgard											
>	Epoxy Primer											
>	Consumables (Vulcaseal, Tecscrew, Paint Brush, Thinner, Rags, Masking Tape, etc.)											
Total - VII			**Php**									
VII.	**CARPENTRY WORKS**											
>	4.5mm Thick Fiber Cement Board	72.20	sq.m.									

>	Wall Angle, 25mm x 25mm x 0.5mm Thick x 3meters											
>	Carrying Channel, 12mm x 38mm x 1mm Thick x 5meters											
>	Metal Furring, 19mm x 50mm x 0.6mm Thick x 5meters											
>	Consumables (W-Clip, J-Clip, Black Screw, Blind Rivet etc.)											
Total - VIII			**Php**									
VIII.	**ELECTRICAL WORKS**											
	A. Electrical Wires, Devices and Lighting Fixtures	1.00	lot									
>	18 watts T8 LED Tube Light with Box Type Set											

>	13 Watts LED Light Bulb with E27 Receptacle											
>	18 watts LED Weatherproof Wall Lamp Light (Spot)											
>	Switch 1gang, Slim Art Series and LED Indicator											
>	Switch 2gang, Slim Art Series and LED Indicator											
>	Switch 2gang, Slim Art Series and LED Indicator											
>	1 gang Convenience Outlet Universal with Ground											
>	Duplex Convenience Outlet Universal with Ground											

>	1/2" PVC Pipe (Orange for electrical) series 1000											
>	EMT Pipe,1/2"											
>	2.0mm.sq THHN Copper wire											
>	3.5mm.sq THHN Copper wire											
>	Twin Head Automatic Emergency Light											
>	LED Exit Light Glass Single Face											
>	Consumables (Fittings for PVC & EMT Pipe Conduit, Boxes, GI Wire, Electrical Tape, etc.)											
	B. Equipment	1.00	lot									
>	16" Ceiling Mounted Industrial Exhaust Fan / Dust											

	Extraction Fan with Fabricated 8" PVC Duct to Dust Collector Bin/Housing											
>	1.0m x 1.0m x 1.0m Fabricated Dust Collector Bin/Housing, GA24 Plain Sheet in 2" x 2" Tubular Framing, QDE Paint Finish											
>	Fire Extinguisher (Dry Chem 10lbs) with Stand/Holder											
Total - XI			**Php**									
IX.	**PLUMBING WORKS**											

>	One Piece Water Closet White Tone with Complete Accessories (Sanitary Bidet, Angle Valve, Flexible Hose)	1.00	lot									
>	Half Pedestal Wall Mount Lavatory with Complete Accessories (Faucet, Angle Valve, Flexible Hose, P-Trap)											
>	Shower Set, S/S Faucet with Telephone Shower Head											
>	Automatic Hand Dryer											
>	4" S/S Floor Drain with Odor Interceptor											
>	Consumables (Teflon Tape, Sealant, etc.)											

Total - XII			**Php**									
X.	**DOORS AND WINDOWS**											
>	D1 - 1.50m x 2.10m Double Swing Fire Rated Steel Door, 1/4" Thick Viewing Glass, S/S Lever Type Lockset with Single Deadbolt, S/S Ball Bearing Hinges, Floor and Header Flush Bolt and Heavy Duty Door Closer, Duco Paint Finish	1.00	lot									
>	D2- 1.0m x 2.10m Sliding Glass Door, 1/4" Thick Clear Glass in Powder Coated Aluminum Framing, Heavy Duty Lockset											

>	D3 - 1.50m x 2.10m Modified Existing Steel Door, 1/4" Thick Viewing Glass, S/S Lever Type Lockset with Single Deadbolt, S/S Ball Bearing Hinges, Heavy Duty Door Closer, Duco Paint Finish											
>	D4 - 0.70m x 2.10m Fire Rated Steel Door, 1/4" Thick Viewing Glass, S/S Lever Type Lockset, S/S Ball Bearing Hinges, Heavy Duty Door Closer, Duco Paint Finish											
>	D5 - 0.70m x 2.10m Hollow Core PVC Door, S/S Butt Hinges, S/S Cylindrical Door Knob											

>	W1 - 0.80m x 2.40m Sliding Glass Window in Powder Coated Aluminum Framing, Heavy Duty Lockset											
>	W2 - 0.80m x 1.80m Sliding Glass Window in Powder Coated Aluminum Framing, Heavy Duty Lockset											
>	W3 - 0.60m x 0.60m Awning Glass Window in Powder Coated Aluminum Framing, Heavy Duty Lockset											
Total - XIII			**Php**									
XI.	**OTHERS**											
>	Professional Fees / Permits / PPE'S / Signage / etc.	1.00	lot									

Total - XIV		**Php**									

TOTAL COST	

TOTAL SUMMARY OF COST

		MATERIAL COST	LABOR + EQUIPMENT COST	ESTIMATED DIRECT COST	OCM	PROFIT	VAT (5%)	TOTAL INDIRECT COST	TOTAL	UNIT COST
Direct Cost										
Material Cost +	**PhP**									
Labor Cost + Equipment Rental Cost	**PhP**									
Total Direct Cost	**PhP**									
Indirect Cost										

OCM	**15%**	**PhP**									
PROFIT	**10%**	**PhP**									
TAX	**5%**	**PhP**									
Total Indirect Cost		**PhP**									
GRAND TOTAL ESTIMATED PROJECT COST			**PhP**								

AREA II – Improvement of Chemical Storage Stocking Area

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	MATERIAL COST	LABOR + EQUIPMENT COST	ESTIMATED DIRECT COST	OCM	PROFIT	VAT	TOTAL INDIRECT COST	TOTAL	UNIT COST
I.	**SITE WORKS**											
	A. Site Clearing	1.00	lot									
	B. Excavation Works	10.00	cu.m.									
	C. Backfill, Gravel Bedding and Compaction Works	1.00	lot									
>	G1 Ordinary Gravel											
	D. Termite Control	1.00	lot									
>	Concentrated Soilguard Termicide											
Total - I			**Php**									
II.	**CONCRETE WORKS**											

>	Portland Cement, 40kgs/bag	12.00	cu.m.									
>	Washed Sand											
>	3/4 Crushed Gravel											
>	Consumables (Cutting Disk, Tansi, etc.)											
Total - II			**Php**									
III.	**REINFORCING STEEL BARS**											
>	Ø16 RSB x 6meters	1,064.78	kgs									
>	Ø12 RSB x 6meters											
>	Ø10 RSB x 6meters											
>	Consumables (Tie Wire, Cutting Disk, Spacer, etc.)											
Total - II			**Php**									
IV.	**MASONRY WORKS**											
>	4" CHB	186.50	sq.m.									
>	Portland Cement, 40kgs/bag											

>	Washed Sand											
>	Ø10 RSB x 6meters											
>	Consumables (Tie Wire, Cutting Disk, Tansi, etc.)											
Total - IV			**Php**									
V.	**FORMWORKS**											
>	1/4" marine Plywood	81.20	sq.m.									
>	2" x 2" Form Lumber											
>	2" x 3" Form Lumber											
>	Consumables (CWN, Tie Wire, Tansi, etc.)											
Total - V			**Php**									
VI.	**TILE WORKS**											
>	30cm x 30cm Ceramic Tiles	12.80	sq.m.									
>	Tile Adhesive											
>	Tile Grout 2kg/bag											
>	Consumables (Cutting Disk, Spacer, etc.)											

Total - VI			**Php**									
VII.	**PAINTING WORKS**											
	A. Wall and Ceiling	573.60	sq.m									
>	Primer Flat Latex Paint #701											
>	Topcoat Latex Paint											
>	Putty (Spot) #1711											
>	Masonry Neutralizer #44											
>	Consumables (Paint Brush, Paint Roller, Thinner, Rags, Masking Tape, Mesh Tape, etc.)											
	B. Steel and Metal Frames	1.00	lot									
>	QDE Paint											
>	Epoxy Primer											
>	Consumables (Vulcaseal, Tecscrew, Paint Brush, Thinner, Rags, Masking Tape, etc.)											

Total - VII			**Php**									
VIII.	**CARPENTRY WORKS**											
>	4.5mm Thick Fiber Cement Board	83.50	sq.m.									
>	Wall Angle, 25mm x 25mm x 0.5mm Thick x 3meters											
>	Carrying Channel, 12mm x 38mm x 1mm Thick x 5meters											
>	Metal Furring, 19mm x 50mm x 0.6mm Thick x 5meters											
>	Spandrel Ceiling											
>	Consumables (W-Clip, J-Clip, Black Screw, Blind Rivet etc.)											
Total - VIII			**Php**									
IX.	**STEEL AND ALUMINUM WORKS**											

>	50mm x 50mm x 4mm Thick Angle Bar	1.00	lot									
>	40mm x 40mm x 4mm Thick Angle Bar											
>	1 1/2" Dia. G.I. Pipe Sched.20											
>	25mm x 25mm x 4mm Thick Angle Bar											
>	2" x 2" x 4.5mm Wire Dia. Steel Matting, 4' x 8'											
>	3mm Thick ACP with Aluminum Tube Framing											
>	Consumables (Welding Rod, Cutting/Grinding Disk, Blind Rivet, Screw, etc.)											
Total - IX			**Php**									
X.	**ROOFING AND ROOF FRAMING WORKS**											

>	0.6mm Thick Pre-Painted Roofing Sheet, Single Rib Type	166.60	sq.m.									
>	0.6mm Thick Pre-Painted Fascia Cover											
>	S/S Box Type Inside Gutter											
>	100mm x 50mm x 1.2mm Thick C-Purlins											
>	150mm x 50mm x 1.2mm Thick C-Purlins											
>	Double Bubble Double Foil Roof Insulator, 50meter/roll											
>	50mm x 50mm x 4mm Thick Angle Bar											
>	40mm x 40mm x 4mm Thick Angle Bar											
>	Consumables (Welding Rod, Cutting/Grinding Disk, Blind Rivet, Tecscrew, etc.)											

Total - X			**Php**									
XI.	**ELECTRICAL WORKS**											
	A. Electrical Wires, Devices and Lighting Fixtures	1.00	lot									
>	18 watts T8 LED Tube Light with Box Type Set											
>	6" x 6" Square Surfaced Mounted LED Light											
>	Switch 1gang, Slim art Series and LED indicator											
>	Switch 2gang, Slim art Series and LED indicator											
>	1 gang Convenience Outlet Universal with Ground											
>	Duplex Convenience Outlet Universal with Ground											

>	1/2" PVC Pipe (Orange for electrical) series 1000											
>	EMT Pipe,1/2"											
>	2.0mm.sq THHN Copper wire											
>	3.5mm.sq THHN Copper wire											
>	14mm.sq THHN Copper wire											
>	Panel Board, 100AT Main breaker, with 8 branches of 2-15AT, 3-20AT, 3-30AT, single phase, bolt on type breaker, thermal magnetic, in NEMA 1 enclosure											
>	Twin Head Automatic Emergency Light											
>	10" Wall Mounted Exhaust Fan with Shutter											
>	Consumables (Fittings for PVC & EMT Pipe Conduit, Boxes, GI Wire, Electrical Tape, etc.)											

	B. Equipment	1.00	lot									
>	16" Wall Mounted Industrial Exhaust Fan with Shutter and Fabricated G.I. Hood and Insect Screen Cover											
>	Fire Extinguisher (Dry Chem 10lbs) with Stand/Holder											
Total - XI			**Php**									
XII.	**PLUMBING WORKS**											
>	One Piece Water Closet White Tone with Complete Accessories (Sanitary Bidet, Angle Valve, Flexible Hose)	1.00	lot									
>	Half Pedestal Wall Mount Lavatory with Complete Accessories (Faucet, Angle Valve, Flexible Hose, P-Trap)											
>	Shower Set, S/S Faucet with											

	Telephone Shower Head											
>	S/S Composite Emergency Shower Eyewash Vertical Double Eye Washing Shower Set											
>	4" S/S Floor Drain with Odor Interceptor											
>	1" HDPE Pipe Blue											
>	3/4" PPR Pipe PN20, 4meter length											
>	1/2" PPR Pipe PN20, 4meter length											
>	4" Orange uPVC Pipe Series1000, 3meter length											
>	4" Orange uPVC Pipe Series600, 3meter length											
>	2" Orange uPVC Pipe Series600, 3meter length											

>	Construction of Isolated RC Pipe Catch Basin with Concrete Cover and PVC Pipe Ventilation for Spill Canal											
>	Consumables (Fittings for HDPE Pipe, PPR Pipe and uPVC Pive, Teflon tape, etc.)											
Total - XII			**Php**									
XIII.	**DOORS AND WINDOWS**											
>	D1 - 1.60m x 2.10m Double Swing Steel Door, 1/4" Thick Viewing Glass, S/S Lever Type Lockset with Single Deadbolt, S/S Ball Bearing Hinges, Floor and Header Flush Bolt and Heavy Duty Door Closer, Duco Paint Finish	1.00	lot									

>	D2- 0.90m x 2.10m Steel Door, 1/4" Thick Viewing Glass, S/S Lever Type Lockset, S/S Ball Bearing Hinges, Heavy Duty Door Closer, Duco Paint Finish											
>	D3 - 0.90m x 2.10m Fabricated Steel Door, 4.5mm Wire Dia. Steel Matting in 1 1/2" Dia. G.I. Pipe Framing, Cylindrical Type Hinges, Barrel Bolt Lockset with Heavy Duty Padlock											
>	D4 - 0.60m x 2.10m Hollow Core Flush Door, 9mm Thick Marine Plywood, S/S Butt Hinges, S/S Cylindrical Hinges, Duco Paint Finish											
>	W1 - 0.60m x 2.10m Awning Type Window in Powder Coated Aluminum Framing											

>	W2 - 0.60m x 1.40m Awning Type Window in Powder Coated Aluminum Framing											
Total - XIII			**Php**									
XIV.	**OTHERS**											
>	Professional Fees / Permits / PPE'S / Signage / etc.	1.00	lot									
Total - XIV			**Php**									
											TOTAL COST	

TOTAL SUMMARY OF COST									
	MATERIAL COST	**LABOR + EQUIPMENT COST**	**ESTIMATED DIRECT COST**	**OCM**	**PROFIT**	**VAT (5%)**	**TOTAL INDIRECT COST**	**TOTAL**	**UNIT COST**

Direct Cost										
Material Cost +		**PhP**								
Labor Cost + Equipment Rental Cost		**PhP**								
Total Direct Cost		**PhP**								
Indirect Cost										
OCM	**15%**	**PhP**								
PROFIT	**10%**	**PhP**								
TAX	**5%**	**PhP**								
Total Indirect Cost		**PhP**								
GRAND TOTAL ESTIMATED PROJECT COST			**PhP**							

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

☐ (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**

☐ (c) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**

☐ (d) Special PCAB License in case of Joint Ventures **and** registration for the type and cost of the contract to be bid; **and**

☐ (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission **or** original copy of Notarized Bid Securing Declaration; **and**

(f) Project Requirements, which shall include the following:

☐ a. Organizational chart for the contract to be bid;

☐ b. List of contractor's key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;

☐ c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**

☐ (g) Original duly signed Omnibus Sworn Statement (OSS) **and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

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

Class "B" Documents

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

II. FINANCIAL COMPONENT ENVELOPE

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

Other documentary requirements under RA No. 9184

☐ (k) Original of duly signed Bid Prices in the Bill of Quantities; **and**

☐ (l) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**

☐ (m) Cash Flow by Quarter.


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