PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

IB No. 22-07-21

CONSTRUCTION OF URGP BUILDING – PHASE II

PhP8,462,726.64

Sixth Edition
July 2020

Preface

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

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

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

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

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

a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.

b. Specific details, such as the "*name of the Procuring Entity*" and "*address for bid submission*," should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.

c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.

d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.

f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

TABLE OF CONTENTS

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.

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(Formerly Iloilo Normal School)
Bids and Awards Committee Secretariat Office/ Procurement Section
Luna St., La Paz, Iloilo City 5000
Iloilo, Philippines
* Trunkline: (063) (033) 320-0870 loc1103/1104 * Telefax No.: (033) 320-0879
* Website: **www.wvsu.edu.ph** * Email Address: **govtproc@wvsu.edu.ph**

Invitation to Bid for

CONSTRUCTION OF URGP BUILDING – PHASE II

IB No. 22-07-21

1. The ***West Visayas State University***, through the ***Special Trust Fund 2022*** intends to apply the sum of ***Eight Million Four Hundred Sixty-Two Thousand Seven Hundred Twenty-Six Pesos and 64/100 (PhP8,462,726.64) Only*** being the Approved Budget for the Contract (ABC) to payments under the contract for ***Construction of URGP Building – Phase II*** Bids received in excess of the ABC shall be automatically rejected at bid opening.

2. The ***West Visayas State University*** now invites bids for the above Procurement Project. Completion of the Works is required ***One hundred fifty (150) calendar days.*** 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. Interested bidders may obtain further information from ***West Visayas State University, BAC Secretariat Office, Administration Building*** and inspect the Bidding Documents at the address given below from ***8:00 A.M. – 5:00 P.M.***

5. A complete set of Bidding Documents may be acquired by interested bidders on ***July 15, 2022-August 08, 2022,*** from given address and website/s below *and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of* ***PhP10,000.00***. The Procuring Entity shall allow the bidder to present its roof of payment for the fees *in person, by facsimile, or through electronic means.*

6. The ***West Visayas State University*** will hold a Pre-Bid Conference[1] on ***July 26, 2022; 10:00 A.M.*** through videoconferencing/webcasting via ***google meet (for registration of interested bidders, please send your request to this address: govtproc@wvsu.edu.ph)***, 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 as indicated below, (ii) online or electronic submission as indicated below, or (iii) both** on or before ***August 08, 2022; 10:00 A.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 16.

9. Bid opening shall be on ***August 08, 2022; 10:00 A.M.*** at the given address below and/or through ***electronic submission using a two-factor security procedure consisting of an archive format compression and password protection with separate password for technical and financial component envelope.*** Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

10. Requiring the Bidders to submit their bids using a two-factor security procedure consisting of an archive format compression and password protection with separate password for technical

[1] May be deleted in case the ABC is less than One Million Pesos (PhP1,000,000) where the Procuring Entity may not hold a pre-bid conference.

and financial component envelope and disclose the password for accessing their respective bid submission only during the actual bid opening.

11. The ***West Visayas State University*** 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:

    ROSALIE C. QUICOY
    Head, BAC Secretariat
    West Visayas State University
    BAC Secretariat Office, Administration Building
    Luna St., La Paz, Iloilo City, 5000
    govtproc@wvsu.edu.ph
    (033) 320-08-70-78 local 1103
    wvsu.edu.ph

13. You may visit the following websites:

    For downloading of Bidding Documents: ***wvsu.edu.ph***

    For online bid submission: ***govtproc@wvsu.edu.ph***

July 15, 2022

JULIUS B. UNDAR
BAC, Chairperson

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, ***West Visayas State University*** invites Bids for the ***Construction of URGP Building – Phase II***, with Project Identification Number ***IB No. 22-07-21***.

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 ***Special Trust Fund 2022*** in the amount of ***Eight Million Four Hundred Sixty-Two Thousand Seven Hundred Twenty-Six Pesos and 64/100 (PhP8,462,726.64) Only.***

2.2. The source of funding is:

a. NGA, the Special Appropriations (Special Trust Fund 2022).

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.

7.2 *Not applicable*

7.3 *Not applicable*

7.4 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 through videoconferencing/webcasting} *via* ***google meet (for registration of interested bidders, please send your request to this address: govtproc@wvsu.edu.ph)***as indicated in paragraph 6 of the **IB.**

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

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

10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be

accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

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

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

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

11. Documents Comprising the Bid: Financial Component

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

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

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

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

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

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

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 until ***December 06, 2022***. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

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

19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.

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

20. Post Qualification

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

21. Signing of the Contract

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

Section III. Bid Data Sheet

<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:
<u>Civil Works</u></td></tr>
<tr><td>7.1</td><td>No further instructions.</td></tr>
<tr><td>10.3</td><td>PCAB License: Small B; License Category: C and D</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 colspan="3">No personnel must occupy more than two (2) positions in the list of the contractor’s key personnel to be assigned to the contract to be bid. The submission should include curriculum vitae of the key personnel including licenses; 1. Valid PRC license for registered Engineers, Architects and Master Plumber; 2.Certificate of Accreditation as Materials Engineer issued by DPWH and 3. Certificate of completion of DOLE prescribed training (COSH) for Safety Officer.</td></tr>
<tr><td>Resident Engineer</td><td>Building Construction</td><td>at least 3 years</td></tr>
<tr><td>Project Manager</td><td>Building Construction</td><td>at least 3 years</td></tr>
<tr><td>Architect</td><td>Building Construction</td><td>at least 3 years</td></tr>
<tr><td>Master Plumber</td><td>Building Construction</td><td>at least 3 years</td></tr>
<tr><td>Materials Engineer</td><td>Building Construction</td><td>at least 3 years</td></tr>
<tr><td>Safety Officer</td><td>Building Construction</td><td>at least 3 years</td></tr>
</table></td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:
<table>
<tr><th>Equipment</th><th>Capacity</th><th>Number of Units</th></tr>
<tr><td>Bar Cutter</td><td>Standard</td><td>1</td></tr>
<tr><td>Bar Bender</td><td>Standard</td><td>1</td></tr>
<tr><td>1-bagger Mixer</td><td>1-bagger</td><td>1</td></tr>
<tr><td>Welding Machine</td><td>150-300 Amperes</td><td>1</td></tr>
<tr><td>Hauling Truck</td><td>5 cu.m.</td><td>1</td></tr>
<tr><td>Concrete Vibrator</td><td>Standard</td><td>2</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 <u>PhP169,254.53</u> [Insert 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 <u>PhP423,136.33</u> [Insert five percent (5%) of ABC] if bid security is in Surety Bond.</td></tr>
<tr><td>19.2</td><td>The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.</td></tr>
<tr><td>20</td><td>1.Latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS);
2. PRC License of key personnel assigned to the project.</td></tr>
<tr><td>21</td><td>Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as <u>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 and Contractors All Risk Insurance (CARI).</u></td></tr>
</table>

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

4.1. 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.

4.2. 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	*Completion of the Works:*_____
4.1	***3 days after the receipt of Notice to Proceed (NTP).***
6	The site investigation reports are: _____.
7.2	*[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:]* Fifteen (15) years. *[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. *[In case of other structures, such as bailey and wooden bridges, shallow wells, spring developments, and other similar structures:]* Two (2) years.
10	Dayworks are applicable at the rate shown in the Contractor's original Bid.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within *7 calendar 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 ***Not applicable***.
13	The amount of the advance payment is ***shall not exceed 15% of the total contract price and schedule of payment.***
14	*[If allowed by the Procuring Entity, state:]* Materials and equipment delivered on the site but not completely put in place shall be included for payment. ***No further instructions.***
15.1	The date by which operating and maintenance manuals are required is ***not applicable***. The date by which "as built" drawings are required is ***upon 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 ***None***.

Section VI. Specifications

PROJECT TITLE: **CONSTRUCTION OF URGP BUILDING – PHASE II**

LOCATION: **WVSU – MAIN CAMPUS**

SITE WORK

A. WORK INCLUDED
   1. Establishment of lines, grades and benchmarks and provision of temporary facility
   2. All backfolding, filling and grading, removal of excess materials from site.
   3. Protection of property, work and structures, workmen, and other people from damage and injury.

B. LINES, GRADES AND BENCHMARKS
   1. Stake out accurately the lines of the building and of the other structures included in the contract, and establish grades therefore, after which secure approval by Architect before any excavation work is commenced.
   2. Erect basic better boards and basic reference marks, at such places where they will not be disturbed during the construction of the foundations.

C. EXCAVATIONS

Structural Excavations – Excavations shall be to the depths indicated bearing values. Excavations for footings and foundations carried below required depths shall be filled with concrete, and bottom of such shall be level. All structural excavations shall extend to sufficient distance from the walls and footings to allow for proper erection and dismantling of forms, for installation of service and for inspection. All excavations shall be inspected and approved before pouring any concrete, laying underground services or placing select fill materials.

The Contractor shall control the grading in the vicinity of all excavated areas to prevent surface drainage running into excavations. Water which accumulates in excavated areas shall be removed by pumping before fill or concrete in placed therein.

Note: This structure will be adjacent with an existing structure, thus be careful with existing structures, footing, beams, posts, pipes underground, any other pipelines present on site. Consult with Engineer before any major demolition and boring. Any damages will be shouldered by the contractor.

D. FILLINGS AND BACKFILLING
   1. After forms have been removed from footings, piers, foundations, walls, etc. and when concrete work is hard enough to resist pressure resulting from fill, backfilling may then be done. Materials excavated may be used for backfilling. All filling shall be placed in layers not exceeding six (6) inches in thickness, each layer being thoroughly compacted and rammed by wetting, tamping, rolling.

E. PLACING AND COMPACTING FILL
   1. Common Fill- shall be approved site-excavated materials free from roots, stumps and other perishable or objectionable matter.
   2. Select Fill – Shall be placed where indicated and shall consist of crushed gravel, crushed rock, or combinations thereof. The materials shall be free from adobe, vegetable matters and shall be thoroughly tampered after placing.
   3. Before placing fill material, the surface upon which it will be placed shall be cleared of all brush roots, vegetable matters and debris, sacrificed and thoroughly wetted to insure good bonding between the grounds.

F. DISPOSAL OF SURPLUS MATERIALS

1. Any excess materials remaining after completion of the earthwork shall be disposed of by hauling and spreading in nearby spoil areas designated by the OWNER. Excavated materials deposited in soil areas shall be graded to a uniform surface.
2. On site area must be clean at all times. During and after construction, to observe proper board ups and site cleaning. Coordinate with project in charge for proper disposal.

II. CONCRETE AND REINFORCED CONCRETE

A. GENERAL

1. 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 concrete shall conform to the requirements of specifications for Portland Cement (ASTM C – 150)
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 shall consist of hard, tough, durable, uncoated particles. 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.
4. Coarse aggregates shall consist of gravel, crushed gravel or rock, or a combination of a gravel and rock, coarse aggregates shall consist of hard, tough, durable, clean and uncoated particles. The sizes of coarse aggregates to be used in the various parts of the works shall be in accordance of the following:

   Maximum Size – 1 ½" for all concreting works

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

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

No. 4 (1/2") 12 mm	No. 8 (1") 25 mm
No. 3 (3/8") 10 mm	No. 9 (1 11/8") 28 mm
No. 5 (5/8") 16 mm	fy – 33,000 psi
No. 6 (3/4") 20 mm	fy – 40,000 psi
No. 7 (7/8") 22 mm	fy – 60,000 psi

For 10mm and 12mm dia. RSB, use RSB Grade 40

For 16mm dia. and above, use RSB Grade 60

Testing of materials for the above mentioned items is required, to schedule with project in charge for testing at least 2 days before date of testing.

C. PROPORTIONING AND MIXING

1. Proportioning and mixing of concrete shall conform to the requirements for Item 405 of the standard specification with the following proportions:

	Cement	Sand	Gravel
Class "A" –	1	2	3
Class "B" -	1	2	4
Class "C" -	1	2 ½	5

3. Class of Concrete – concrete shall have 28-day cylinder strength of 4,000 psi. for all concrete works, including columns and beams unless otherwise indicated in the plans or approved by the engineer.

   Concrete for slab-on-fill shall have a 28-day cylinder strength of 4,000 psi.

4. 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 the concrete mixer, manual mixing is allowed.

D. FORMS

1. General – Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms for exposed surfaces against which backfill is not be placed shall be lines with a form grade plywood. For best practice, use ½" Phenolic board (of good quality) as form boards.

2. Cleaning and Oiling of Forms – before placing the concrete, the contact surfaces of the formed hall be cleaned of encrustations of mortar, the grout or other foreign material, and shall be coated with a commercial form 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. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.

E. PLACING REINFORCEMENT:

1. General – steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer 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.

   Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete.

F. CONVEYING AND PLACING CONCRETE:

1. Conveying – concrete shall be conveyed from mixer to forms as rapidly as applicable, 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 – concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded 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 consequently 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. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
4. Consolidation of Concrete – concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall 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 forms makes placing difficult, a layer of mortar of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

G. CURING

1. General – All concrete shall be moist cured for a period not less than seven (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 keeping the covering spraying or intermittent hosing.

H. FINISHING

1. Concrete surfaces shall not 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 present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.
2. Concrete Slabs on Fill. The 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 the overlaying slab except as indicated otherwise.

III. MASONRY WORKS

A. MATERIALS

1. Concrete Hallow Blocks shall have a minimum face shell thickness of 1” (.025). Nominal size shall be 4” x 8” x 16” or 6” x 8” x 16” with minimum compressive strength as follows:

   Class “A” – 900 psi

   Class “B” – 750 psi

   All units shall be stoned for a period of not less than 28 days (including curing period) and shall not be delivered to the job site prior to that time unless the strengths equal or exceed those mentioned in these specifications.

2. Wall Reinforcement shall be 10mmØ or 12mmØ steel bars as specified in the plans.
3. Sand shall be river sand, well screened, clean, hard, sharp sillicious, free from loam, silt or other impurities, composed of grains of varying sizes within the following limits:

Sieve No.		Percent (%)
9	Passing	100
16	Retained	5
100	Retained	95

4. Cement shall be standard Portland cement, ASTM D-150-68 Type 1.
5. Mortar – Mix Mortar from 3 to 5 minutes in such quantities as needed for immediate use. Retampering will not be permitted if mortar stiffens because of premature setting. Discard such materials as well as those which have not been used within one hour after mixing.

   Proportioning: Cement mortar shall be one (1) part Portland cement and two (2) parts sand by volume but not more than one (1) part Portland cement and three (3) parts sand by volume.

B. ERECTION

1. All masonry shall be laid plumb, true to line, with level and accurately spaced courses, and with its course breaking joint with the source below. Bond shall be kept plumb throughout; corners and reveals shall be plumb and true. Units with greater 12 percent absorption shall be wet before laying. Work required to b built in with masonry, including anchors, wall plugs and accessories shall be built in as the erection progresses.
2. Masonry Units. Each course shall be solidly bedded in Portland cement mortar. All units shall be damp when laid units shall be showed into place not laid, in a full bed of unfurrowed mortar. All horizontal and vertical points shall be completely filled with mortar when and as laid. Each course shall be bonded at corners and intersections. No cell shall be left open in face surfaces. All cell shall be filled up with mortar for exterior walls. Units terminating against beam or slab suffits shall be wedge tight with mortar. Do not lay cracked, broken defaced block.
3. Lintels shall be of concrete and shall be enforced as shown in the drawings. Lintels shall have a minimum depth of 0.20 (8”) and on each side of opening.

C. WORKMANSHIP AND INSTALLATION:

1. Plastering: Clean and evenly wet surfaces. Apply scratch coat with sufficient force to form good keys. Cross scratch coat after scratch coat has set at least 24 hours after scratch coat application. Lightly scratch brown coat; keep moist for two (2) days; allow drying out. Do not apply finish until brown coat has seasoned for seven (7) days. Just before applying coat, wet brown coat again. Float finish coat to true even surface; trowel in manner that will force sand particles down into plaster; with final toweling, leave surfaces banished smooth, free from rough area, trowel marks, cheeks, other blemishes. Keep finish cost mist for at least two (2) days; thereafter protect against rapid drying until properly, thoroughly cured.
2. Pea Gravel Washout: Before start of work, provide desired pitch for drainage. Roughen concrete surface with pick or similar tool. Clean off loose particles and other materials which may prevent bond, keep surface wet for at least four (4) hours before applying. Scratch coat of mortar. Coat more than ¾” thick. Apply mixture of pea gravel and Portland cement with pressure to obtain solid adhesion. Trowel pea gravel to hard, smooth, and even plain and rod and float to uniform surface or even texture. When surface is semi-dry evenly spray surfaces with clean water with spray machine to washout loose cement to part exposed pea gravel. Remove and wash down remaining cement paste with soft brush, to leave pea gravel in its natural texture appearance. Before applying pea gravel finish, submit samples to owner for approval.

D. SCAFFOLDING

Provide all scaffolding required for masonry works, including cleaning down on completion, remove.

IV. ARCHITECTURAL FINISHES SCHEDULE

A. Bush-Hammered Finish

1. General – The work includes the performance of all work required in connection with bush hammered finish on concrete and masonry surfaces as shown on the drawings.

   1.1 Materials

   1.1.1 Cement shall conform to ASRM Standard, C150, Type 1.

   1.1.2 Adobe Granules shall be of high quality subject to the approval of the Engineer.

1. Requirements. The surface to be finished shall be thoroughly cleaned. Bush-Hammered finish shall be composed of one part cement and two parts of adobe granules. The base coat shall be applied with sufficient materials and pressure to form a good bond with masonry and then it shall be dressed with a bush-hammer to provide a uniformly roughened surface. No abrupt irregularities shall be permitted and the granules shall not exceed in any case one (1) mm, using a straight edge or templates for testing irregularities. Corrective work, if any, shall be done by the Contractor to the satisfaction of the Engineer.

B. Pea-Gravel Finish

1. Pea-Gravel Finish shall have a composition of cleaned "Bohol" pea-gravel, No. 10 size, and with a 70 percent beige and 30 percent white color of pebble, unless otherwise indicated.
2. Sealer. Penetrating type, free from harmful alkali or acid content. Sealer shall not discolor the surface nor leave a tacky or sticky finish film on surface.
3. Pea-Gravel Washout Matrix shall be composed of 100 kilograms of pea-gravel composition per bag of Portland cement. Thoroughly mix dry ingredients before adding water in the amount of 18 liters per bag of cement. Apply to a minimum thickness of 13mm.
4. Installation Pea-Gravel Washout Matrix. Thoroughly moisten substrate but do not saturate; slush with neat cement into the substrate surfaces and then place the matrix. Compact by toweling to extract all excess cement and water. Sprinkle with pebble composition where required to produce even texture of matrix. Follow immediately with water fogging to expose pebbles over matrix.
5. Curing. Keep the completed pea-gravel washout continuously moist for a period of 6 days by sprinkling water.
6. Cleaning and Sealing. After curing, remove all laitance from washout surfaces with an acid bath, using a 1 to 10 solution of muriatic acid to water and screbbing surface, followed by thoroughly rinsing with clean water. When surface is dry, apply sealer in accordance with sealer manufacturer's instructions.
7. Protection. Protect pea-gravel washout works from damage until completion of the work of all other trades.

C. TILEWORKS

1. General – Consist of furnishing all materials, labor and performing all operations in connection with tile finishing of floors and walls, complete including mortar beds for the tile. Tilework shall not be started until roughing-ins for plumbing and electrical work has been completed and tested. The work of all other trades in the area where the work is to be done shall be protected from damage in a workmanship manner as directed by the Engineer.
2. Materials
   2.1 Floor tiles shall be standard grade unglazed natural clay tile of 6mm thick manufactured by "Mariwasa" or its equivalent. Color and pattern shall be specified in the drawings or as approved by the Architect/Engineer. Present actual samples for approval before implementation

   2.2 Wall and Special Tiles shall be of 6 mm thick non-vitreous body glazed tiles, manufactured by "Mariwasa" or its approved equivalent. Color and pattern shall be as specified in the drawings or as approved by the Engineer. Tiles shall be free from laminations, serrated edges, chipped off corners and other imperfection affecting their quality, appearance and strength.
   2.3 Cement shall conform to ASTM Standard c150, Type 1.

2.4 Heavy duty tile and heavy-duty tile adhesive be used when specified by the Architect/Engineer.
2.5 Sand shall be natural sand and shall be retained between No. 50 and No. 100 sieves.
2.6 Lime shall be hydrated lime where the free (unhydrated) calcium oxide and magnesium oxide content does not exceed 8 percent by weight.
2.7 Cement Pigment non-Fading mineral oxides of the quality as approved by the Engineer.
2.8 White cement shall be of the standard quality approved by the Engineer.

Manufactured materials shall be delivered in the original unbroken packages or containers that are labeled plainly with the manufacturer's names and brands. Containers for tiles shall be grade-sealed. Materials shall be stored in dry, weather tight enclosures and shall be handled in a manner that will prevent the intrusion of deleterious materials that will affect the quality and appearance of the tiles.

3. Mortar – A scratch coat for wall tile shall consist of one part Portland cement, ¼ part lime putty and 3 parts sand by volume. Scratch coat shall have a minimum thickness of 9mm. The Buttering mortar for setting wall tiles and mortar setting bed for floor tiles shall have the same proportion as that of scratch coat.

D. FLOOR TILING

a. Preparation of Surfaces. Before tile is applied with a dry-set mortar bed, the structural floor shall be tested for levelness or uniformity of slope by flooding it with water. Areas with water ponds shall be gilled, leveled and retested before the setting bed is applied. The slab shall be soaked thoroughly with clean water on the day before the setting bed is applied. Immediately preceding the application of the setting bed, the slab shall again be wetted thoroughly but no free water shall be permitted to remain on the surface. A skin coat of Portland cement mortar shall then be applied not more than 1.5mm thick. The mortar shall be spread until its surface is true and even, and thoroughly compacted, either level or sloped uniformly for drainage, where required. A setting bed, as far as can be covered with the tile before the mortar shall reached its initial set, must be placed in one (1) operation, but in the event that more setting mortar has been placed than can be covered, the unfinished portion shall be removed and cut back to a clean leveled edge.

b. Application for Floor Tile. All tiles shall be soaked in clean water to a minimum of one (1) hour before they are installed. Absorptive mounted tile shall be damped by placing tile on a wetted cloth in a shallow pan before installing. Before the initial set has taken place in the setting bed, a skim of Portland cement mortar .75mm to 1.5mm thick shall be toweled or brushed over the setting bed or plain Portland cement .75mm to 1.5mm thick may be hand-dusted uniformly over the setting bed and worked lightly with a trowel or brush until thoroughly damp. The tiles shall then be pressed firmly upon the setting bed, and carefully tapped into the mortar until true and even with the place of the finished floor base. Tapping and leveling shall be completed within one (1) hour after placing tiles. Borders and defines lines shall be laid before the field or body of the floor. Where floor drain is provided, the floor shall be slopped properly to the drains. Cutting of tiles, where necessary, shall be done along the outer edges of tile against trim, base, thresholds, pipes, built-in fixtures, and similar surfaces and shall be geared and joined carefully. Tiles shall be secured firmly in place, and loose tiles or tiles sounding hollow shall be removed and replaced to the satisfaction of the Engineer. All lines shall be kept straight, parallel and true and all finished surface brought to true and even planes.

E. WALL TILLING

a. Preparation of wall Surfaces. Scratch coat shall be applied on prepared surface to serve as backing for wall tiles, not less than 24 hours or more than 48 hours before starting the tile setting. Temporary screeds shall be applied to the scratch coat to provide a true and plumb surface to the proper distance back from the finished wall. The setting bed shall be applied, rodded, and floated flushed with the screeds over an area no greater than will be covered with the title while the bed remain plastic. The thickness of the setting bed shall not exceed 20mm and the mortar shall not be retempered. For corner tiles, it must be of "kutsilyada", at 45 degree cutting for corner tiles.

b. Application of Wall Tile. Tiles shall be soaked in clean water for a minimum of one (1) hour before they are installed. A skim coat of Portland cement mortar, mixed with water to the consistency of thick cream shall be applied .75mm thick to the mortar setting bed, or to the back of each tile. The tiles shall then be pressed firmly upon the setting bed and tapped until flush and in the place of the other tiles. The tiles shall be applied before the mortar bed has taken its initial set. Intersections and returns shall be formed accurately. All lines shall be kept straight and true, and all finished surfaces brought to true and even planes, internal corners squared and external corners, rounded. Horizontal joints shall be maintained level and vertical joints plumb in alignment.

F. JOINTS

1. Joints shall be parallel and uniform in width, plumb level and in alignment. End joints in broken-joint shall be made, as far as practicable, on the center line of the adjoining tiles. Joint widths shall be uniform and measured to accommodate the tiles in the given spaces with a minimum cutting.

G. PROTECTION

a. Areas where tiles are being laid shall be closed to traffic of other work until the floors are completed and the tiles have firmly set. Tile works shall be adequately protected from damage until the completion of the Contract.

H. GROUTING

a. Grouting shall be done as soon as the mortar beds have sufficiently set. All cement shall be Portland cement, colored or white, as required. Where light colored mortar is required in joints, a mixture of white cement and non-fading mineral oxide shall be used to produce the desired colors. The quantity of mineral oxides shall not exceed 10 % of the volume of the cement in any case.

I. CLEANING

a. Upon completion of the grouting, the tiles shall be thoroughly cleaned and maintained in this condition until completion of the Contract.

V. CEILINGS

A. General – This item shall consist of all fabricated materials complete with hardware necessary for the proper functioning thereafter as called for in this specification unless indicated otherwise in the drawing.

1. All interior ceilings shall be as specified in the drawings.
2. Outside ceiling eaves shall be as specified in the drawing.

VI. DRYWALL PARTITIONS

A. General – This item shall consist of all fabricated materials complete with hardware necessary for the proper functioning thereafter as called for in this specification unless indicated otherwise in the drawing.

VII. WOOD DOORS

A. General – This item shall consist of all fabricated wooden doors complete with hardware necessary for the proper functioning thereafter as called for in this specification unless indicated otherwise in the drawing.

B. Materials – All limber for doors, jambs, door bars, shall be kiln dried with not more than fourteen percent (14%) moisture content.

1. Doors (Swing-Doors). Doors shall have 44mm thickness unless otherwise specified or shown on plans, except counter or louver doors which shall be 31mm thick. In cases where varifold type is indicated on plans, the manufacturers' specifications shall be followed subject to the approval of the Engineer.
2. Door Types (as applicable)

2.1 Solid Core Doors (Glazed and/or Wood Panel). This Type of door shall have cores of the stile and nail type raised on both faces, set loose and either nailed or glued in place. It can either be of glass or wood panels or combination thereof.

2.2 Hollow Core Doors (Flush Door). Except as otherwise specified, flush door shall be done in accordance with the details as shown on the plans. The plywood edge protection shall be around and into the outside frame of the door in order to prevent "pulling off" of the plywood veneers at the edges.

2.3 Glass Window Pane. This type of window shall consist of a single plate of glass framed in kiln–dried lumber, fabricated, shaped and molded true to details and joined properly to acquire rigidity.

C. REQUIREMENTS
1. Pre-fitting and Factory-Priming or Factory Finishing. Doors with surfaces to receive paint finish may be furnished factory primed, and doors with natural finish may be furnished factory pre-finish. Final finishing shall be done in site in accordance with painting and varnishing specifications.
2. Adhesive and Bonds. Adhesive and Bonds shall be in accordance with manufacturer's recommendations for all types of doors subject to the approval of the Engineer. Adhesive for doors with natural finish shall be non-staining.

D. INSTALLATION. Installations shall be installed only after completion of other work which may affect the moisture content of the doors. Doors shall be fitted and trimmed as required by the opening they will cover. Doors shall have a clearance of 3mm at the side and top and shall have a bottom clearance of 6mm over threshold or as known on details. The lock edge of doors shall be beveled at the rate of 3mm in 50mm. Cuts made on the jambs shall be sealed immediately after cutting, using a clear water resist and varnish or sanding sealer.

VIII. CARPENTRY AND JOINERY WORK

A. Materials
1. Quality of Lumber: Lumber shall be approved quality of the respective kinds of the various parts of the work, well seasoned, thoroughly dry, and free from large, loose, or unsound knots, sups, shakes, and other imperfections impairing its strength, durability or appearance. All finishing lumber to be used shall be completely dried and shall not contain more than 14% moisture. All flooring, tongue and groove shall be kiln dried.
2. Treatment of the Lumber:
   a. All concealed lumber shall be sprayed with anti-anay or buk-bok liquid.
   b. Surface in contact with masonry and concrete coated with creosote or equivalent.
3. Door Sashes: All door sashes shall be well seasoned, flush type, semi-hollow core and solid core, Tanguile plywood veneers on both sides. Exterior doors shall be of kiln dried Tanguile panel doors.
4. Kind of Lumber:

   All unexposed lumber for framings shall be of Apitong.

   All windows and door jambs shall be of Apitong or Tanguile.

B. WORKMANSHIP
1. Execute rough carpentry in best, substantial, workmen like manner. Erect framing true to line, levels and dimensions, squared, aligned, plumbed, well spliced and nailed, and adequately braced, properly fitted using mortise and tennon joists.
2. Millwork – Accurately milled to details, clean cut moldings profiles, lines, scrape, sand smooth; mortise, tennon, splice, join, block, nail screw, bolt together, as approved, in manner to allow free play of panels; avoid swelling, shrinkage, ensure work remaining in place without warping, splitting opening or joints. Do not install mill work and case until concrete and masonry work have been cured and will not release moisture harmful to woodwork.
3. Secure work to ground, otherwise fasten in position to hold correct surfaces, lines and level, Make finished work flat, plumb, true.

IX. PAINTING, VARNISHING AND FINISHING

SCOPE OF WORK

1.1 This section includes the supply and furnishing of all materials, labor, and equipment required for the preparation, painting and finishing of all shown on the Drawings and all other work required to complete Painting work as required by these Specifications.

1.2 GENERAL REQUIREMENTS

a. Refer to Drawings and schedule for location, extent of work and other requirements;
b. Materials Handling: Deliver all materials to the jobsite in clean, sealed, original containers with all labels and markings intact. Store materials, in designated storage areas that will be kept neat, clean and locked;
c. Protection: Protect designated and adjacent areas and materials, lawns, shrubbery and other areas not to be painted, from stains and paint splatters resulting in the performance of painting work;
d. Fire Prevention: Contractor shall take every precaution to prevent fires. At the end of each day's work, all oily rags, empty containers and combustible materials must be removed from the premises;
e. Clean-up: Upon completion of work, Contractor shall remove all paint splatters and leave the area in neat and orderly condition;
f. Color Scheme: The Contractor shall faithfully follow the color chips supplied for matching the Color Scheme and Painting Schedule of the Project Engineer. All undercoats shall be tinted to approximate the finish color coat.

MATERIALS

a. All paints, latex, enamels, varnishes, lacquers, and other products to be used in this project shall be of excellent brand and quality
b. Materials necessary to complete the painting and finishing schedule that are specified in these Specifications are standards for kind, quality and function.

PREPARATION OF SURFACES

3.1 GENERAL

Follow standard surface preparation Specification or as specified by the Architect;
a. Metal Surfaces - Remove dust, rust, oil and grease before application of priming coat;
b. Concrete and Masonry surfaces - Remove all loose grit, mortar, dust, dirt, grease, oil and any other foreign matter. Treat with Masonry Neutralizer;
c. Wood Surfaces - Follow manufacturer's instruction for both exterior surface preparation producers before painting work;
d. Fill, caulk or putty all holes, cracks and open joints. Apply putty with knife where necessary, after application of priming coats.

WORKMANSHIP AND APPLICATION

4.1 Apply paint as per manufacturer's Specifications and recommended application procedures.

4.2 WORKMANSHIP

a. Finished surfaces shall be smooth, even and free from defects;
b. Apply paint to completely dry surfaces only and no succeeding coat applied until preceding coat is completely dry;
c. Paint by spray, brush or rollers as per Architect's instructions and specifications.

4.2 PAINTING SCHEDULE

a. Exterior concrete and masonry surfaces:

Coating System	Semi-gloss Finish (acrylic solvent type)
Primer	Flat latex paint
Putty	Masonry glazing putty
$2^{nd}/3^{rd}$ Coats	Latex semi gloss

b. interior concrete and masonry surfaces:

Coating System	Semi-gloss Finish (acrylic solvent type)
Primer	Flat latex paint
Putty	Masonry glazing putty
$2^{nd}/3^{rd}$ Coats	Latex semi gloss

c. Fiber Cement board and similar materials surfaces:

Coating System	Semi-gloss Finish (acrylic solvent type)
Primer	Flat latex paint
Putty	Masonry glazing putty
$2^{nd}/3^{rd}$ Coats	Latex semi gloss

d. Wood flush doors, jambs, and cabinets:

Coating System	Acrylic Finish

e. Architectural Metal surfaces

Coating System	
Primer	Epoxy Paint Finish
$2^{nd}/3^{rd}$ Coat	Acrylic Finish

X. STEEL/ ALUMINUM WINDOWS

A. General – The work covered by this section consist of furnishing of all equipment, materials and labor in the fabrication and installation of steel windows complete in accordance with the applicable drawings and specifications.

B. Materials. All members shall be hot rolled new billet steel with frame and ventilators section not less than 33.3mm (1-5/16") deep from front to back. Frame members shall be of equal leg design section at points where called for by detail drawings, and continuous angle fins, as indicated on drawings, shall be furnished. See-type section of special design with offset permitting down turned leg of the vent member to seat flush when vent in a fully closed position, shall be used for frame angle shaped. Frames and vent members shall have integral weathering baffles providing double first parallel weathering contracts of not less than 6 mm width on all four side of the vent. Muntins shall be 22mm by 31mm rolled-tee sections. For aluminum frames, to include analok aluminum frame and powder coated aluminum frame, refer to specifications on plan and boq, and approval from project in charge and if any changes in specifications, before installation proper.

a. Requirements

1. Aide Hinged Ventilators (Casement Type)

1.1 Simplex-type Hinges shall be of extension friction type with bronze friction washers and rust proofed steel acorn-nuts. Hinged design shall provide ferrous to non-ferrous contacts between all movable surfaces, Hinges shall be welded to both frame and vent.

1.2 Polished bronze locking handle and strike shall be furnished for ventilators 1524mm and under in height, two-point locking device and three hinges shall be furnished for vents over 1524mm in height. Sill adjustors shall be provided for vent over 3.048 sq. m.

4. Mullions. Rolled Steel T-bars, pipe, plate or other formed section, or a combination of them, as shown on drawings, shall be furnished where two or more window units are installed in the same window opening.
5. Aluminum frames must be of good quality, with thickness as specified and of standard quality. To include heavy duty accessories including hinges, locks, closers, etc.

C. Installations of Corners

i. Corners of vents shall be mitered, electrically butt-welded and ground smooth. Corners of frame and all other window joints and intersections of Muntins with frame and vent members shall be coped and electrically welded. Muntin, bars, except where ventilators occur, is to be continuous from head to sill and from jamb to jamb. Muntin cross joints shall be rigidly and neatly interlocked with faces flushed. Frame sections at vent sill shall have weep holes to provide for drainage. Continuous weather drips shall be provided where required at the heads for side-hinged ventilators. Windows shall be designed for glazing at the outside with wire glazing clips and steel casement putty. All units shall be prepared and supplied with necessary standard hardware and screens when included or called for on plans or drawings.

ii. Windows shall be set plumb and true in openings. The joints between the window frame and masonry shall be carefully caulked. Contacts between windows and adjacent steel, including mullions, shall be sealed with mastic. Windows shall be glazed on the inside glass, shall be bedded with steel window putty, held in place by wire glazing clips and faced putted to a neat trim line.

iii. Window edges for aluminum frame should be installed properly at 45 degrees with proper sealants. Avoid sharp edges.

D. Shop Finish

1. Hot (or cold) Phosphate Surface Treatment. Cleaned, chemically treated and primed; except as otherwise specified, windows should be given a treated and primed finish, consisting of the following operation:

iv. After fabrication; grease and dirt shall be removes by a hot alkali solution and the window rinsed in hot water.

v. After cleaning, all parts shall be immersed in a hot phosphate solution and rinsed in a diluted solution of chromic acid.

vi. After air drying under controlled temperature, one coat of shop primer shall be applied by dipping or spraying all surfaces. The primer shall be of a type specifically developed for materials treated with phosphate.

vii. The cleaning, phosphating, dipping or spraying of shop primer, and the even drying shall be done on a continuous operation at the factory.

E. Shop Drawings

viii. The Contractor, shall before proceeding with the manufacture of steel windows, prepare and submit complete manufacturing and installation drawings in full size and in triplicate, together with samples of member-sections and hardware to be used, or the approval of the Engineer. Windows to be manufactured shall conform to the approved drawings and samples.

Submit shop drawings for finalization of actual measurements on site, as built for installation.

XI. GLASS JALOUSIE WINDOWS

- Scope. This section covers furnishing of all glass jalousie window type materials and fixing accessories necessary for the proper functioning thereafter as shown on plans and as herein specified.
- Materials
    i. Lever Type Operation. This type of jalousie window shall be capable of locking the unit in any position and cannot be opened outside. Louver or glass slats clip and tilt bar casing shall be extruded aluminum sections, true to details with clear, straight, sharply defined profiles and free from defects impairing its strength or durability. Aluminum extruded section and strips shall be type AA conforming to ASTM B 235-50T.
    ii. Window Frames (Wood Jambs). Opening frames for jalousie window shall be well seasoned thoroughly dried “Yakal” to avoid any possibility of warping after this glass jalousie window type material has been set in place.
    iii. Glass panes shall be “Industrex” glass of high quality free from unevenness or other imperfection that affects its quality and form.
- Construction Requirements. All wood frames used as jambs for window opening shall be shaped, molded true to details and properly equipped with weather strip to prevent penetration of rain water. Corners of frames shall be mitered and mechanically locked resulting in extremes rigidity. Aluminum lever casing with glass clips, tilt bar and locking handles shall be set and properly adjusted leveled and aligned to acquire satisfactory operation and to assure weather tight construction. Aluminum parts shall be protected in adequate manner to insure against damage during delivery and construction operation. Glass panes shall be fitted and accurately cut to size as required in the plans

XII. GLASS AND GLAZING

A. Scope of Work. The Contractor shall furnish all materials, equipment, tools, labor and incidentals necessary for the satisfactory performance of all works for glass and glazing, including mirrors as shown in the drawings and as specified herein.

B. Materials.

i. Materials shall be delivered and stored in a safe location.
ii. Label shall be affixed to each pane at the factory and shall remain intact until final cleaning.
iii. Quality and thickness of glass shall be mentioned in USGM Specification No. 123 in so far as it is established as a requirement. For other qualities and thickness, recognized commercial standards can be referred to subject to the approval of the Engineer.
iv. Putty on wood or steel sash shall be of the approved type as recommended by the manufacturer and acceptable to the Engineer.
v. All glass works including bronze glass and tempered glass, to refer to specs and boq, and approval from project in charge for thickness and if any changes in specification before installation proper. Standard thickness for tempered glass not less than 6mm.

C. Quality of Glass and Glazing Materials

1. All glass sheets for doors and windows, unless otherwise specified herein or otherwise indicated in the drawings, shall be locally manufactured.
2. All glass sheets used in aluminum and steel doors and windows shall be 5.6mm (7/32") thick or as required by the Engineer.
3. All tempered glass specified herein or indicated on drawings shall be locally manufactures safety glass, 5.6mm (7/32") thick or as required by the Engineer.
4. Plate glass for mirrors shall be 6mm (1/4") thick, polished glass mirror, copper-backed, with exposed edges, leveled and polished. Mirror should project a clear image without refractory effect.
5. Samples of all glass and glazing shall be submitted to the Engineer for approval prior to any installation work.

D. Workmanship

1. All glass shall be accurately cut to fit openings and set with equal bearing on the entire width of the pane. Convex side of glass shall be on the outside.
2. The Contractor shall be responsible for all glass broken due to faulty setting and shall be replaced to the satisfaction of the Engineer.
3. Mirrors, as specified, shall have the proper backing of 6mm (1/4") thick tanguile or palosapis veneer plywood with brass chromium plated frame.
4. Putty shall be neatly run in straight line parallel with inside of glazing frame. Corners shall be carefully made; all excess putty shall be removed and surfaces left clean.

E. Installation

1. Set glass after steel framing have been primed and dried.
2. All glass shall be bedded, back and face puttied, secured in place. Secure glass in aluminum frames with non-corrosive clips excepts where glazing beeds are required. Apply putty uniformly in straight lines, with accurately formed levels and clean cut corners; remove excess putty from glass.
3. Set glass in hollow metal doors and in metal frames to interior partitions in felt channel inserts or bed in putty to prevent any rattle; secure glass in wood doors with glazing stops; secure stops on doors with screws.
4. Improperly set glass shall be replaced to the satisfaction of the Engineer. Install heavy duty door/window handles and sliding guide frames with equivalent heavy-duty locking system. Provide duplicate keys for locks.

F. Cleaning

1. Clean all glass on both sides after puttying has been done completely. Do not disturb edge of putty with scraper. At completion of work leave glass whole free from cracks and rattles.

XIII. FINISH HARDWARE AND SPECIALITITES

A. General Requirements
   1. The Contractor shall provide all rough hardware required for the completion of the work, including hails, spikes, bolts, screws, etc., and shall provide and fit in place all finishing hardware.
   2. The Contractor shall provide and fit in place all hardware not herein specifically mentioned but necessary to complete the work. All such hardware, should be there be any, shall conform in every respect to the hardware herein specified.
   3. Finishing hardware, suitable to the service required to fully equip in the most satisfactory operative condition, for all doors and windows transom sashes, screen doors and windows, closet, built-in cabinet counters, drawers, lockers, and other operating members throughout the project shall be furnished and installed or fitted by the Contractor.
   4. Where the exact types of hardware specified are not adaptable to the finishing, shape or size or members requiring the hardware, suitable types as applicable to same operation and quality as the corresponding individual types specified shall be furnished subject to the approval of the Engineer.

B. Make
   1. The model numbers herein given designate and quality and style (type, design, operation, materials and finish) of hardware designed. Any other hardware equally good, may be substituted only in cases of urgent necessity and subject to the written approval of the Engineer.

C. Finish
   1. Unless otherwise specified, exposed surfaces shall have the following U.S. Standard Finishes:
      1.1 US9 (Polished, Bright Brass or Bronze), Bronze surfaces exposed on exterior building not specified to have US26 finish.

      1.2 US26 (Polished Chromium plated over nickel or brass). Brass or bronze surfaces exposed in toilets, lavatory and shower rooms and all others in the interior of the building.

      1.3 USP (Prime Coated for Painting) Ferrous metal surfaces, unless zinc coated.

D. Fastenings
   1. Fastenings of suitable size, quality and type shall be provided to secure hardware in position. Machine screws and expansion shields shall be provided for securing items of hardware to concrete, brick tile or masonry instead of wood screws.

E. Exposed Items of Hardware
   1. After hardware has been properly fitted, all exposed items such as knobs, plates, pulls, locks, etc., shall be removed until final coat of painter's finish has been applied, and then hardware installed.
   2. Other items of hardware that are not to be removed before painting shall be properly marked or completely covered until final coat of painter's finish has been applied, after which such protective cover shall be removed.

F. Placing Order of Hardware
   1. The Contractor shall schedule his order for all hardware in such a way to avoid delay in the job.
   2. No request for extension of time will be entertained by the Engineer consequence to Contractor's delay in placing his order.
   3. No substitution of hardware shall be allowed due to negligence of the Contractor to place his order ahead of time.

G. Door Knobs, Locks and Latch Strikes. A

1. All lock and latch strikes shall be installed in door frames at the same height from the floor. Door knobs shall be so located that the center of the knob is 0.95 m. from the finished floor.

   Use lever type door knobs with twist lock (Heavy duty, good quality). Submit actual sample for approval.

H. Butt Hinges

1. Each panel of hinged doors shall be provided with two (2) butts for doors 1.50m or less in height; three (3) butts over 1.50 m high and not over 2.10 m; four (4) butts, above 2.10 m in height.
2. Doors of a greater height than 2.10 m, unless otherwise specified, shall be provided with an additional one (1) butt for each 0.65 m or fraction thereof.
3. Size of Butt Hinges required:

Thickness Of Door	Width of Door	Size of Butt Hinges
21mm or 25mm (7/8” or 1”)	:	: 63mm(2 ½”)
28mm (1-1/8”)	:	: 75mm x 75mm (3”x3”)
35mm (1-3/8”)	:	: 0.90 mtrs. (3’) : (3-1/2”x3-1/2”) or less
44mm (1-3/4”)	:	: 100mm x125mm (4” x 4”)
56mm x 63mm (2-1/4” x 2-1/4”)	:	: 125mm x 125mm (5” x 5”)

The shower doors shall be covered by the above schedule for hinges.

Use stainless steel type for all wooden door hinges to include stainless steel screws.

4. Where size of the butt hinges is not sufficient to allow door to clear door trim in open position, same shall be increased.
5. Unless otherwise specified, and except for toilet or shower or water closet compartment doors, provide in all double acting doors type Nu-Jamb No. 42024 – ½ double acting hinge or approved equivalent.

I. Butt Hinges (Make)

1. For all doors in butt hinges, unless otherwise specified, use bottom tip butts, "HAGER", "STANLEY", U.S., or approved equivalent, highly polished and plated with non-raising pin for door opening outside. For size and number to each door, refer to section H.3 of this section of the specifications.

J. Door Latches, Indicator.

1. Provide and fit each door of all water closets compartment with No. 1990 rim bolt No. 1985 indicator, cast brass, chromium plated and polished as illustrated and describe on Hinges Catalog, or any approved equivalent of similar type.

K. Locks

1. The Contractor shall provide and set complete, ready for operation, one pin tumbler cylinder lock of the medium or standard type, for each door in accordance with the schedule below. Standard finished as specified, shall apply to all locks, used "YALE", "CORBINE" of the standard type, or approved equivalent.

The trademark and plate numbers given herein are to designate only the quality, type, operation, materials and style (design) required.

L. Schedule of Lockset and Door Closers

1. Lockset shall be of any approved equivalent installed complete ready for use and service in accordance with the manufacturer's institutions for the doors on all rooms and Comfort Rooms.

XIV. ROOFING/ ROOF FRAMING AND TIN SMITHING WORKS

General Notes.

Except as specified otherwise herein, all materials shall be installed in accordance with the manufacturer's printed erection instructions. Care shall be exercised in storing, handling and installing to prevent any damage to roofing and siding sheets. The sheets shall be of the length indicated or the greatest length to suit the purlins spacing. End laps of roofing shall be located over purlins, and end laps in siding shall be located over girts. Extreme care shall be exercised in drilling pilot hole for fastening to keep drills perpendicularly centered in valleys or crowns as applicable. After drilling, all metal filings and burrs shall be removed from holes prior to installing fasteners and washers. Sheets deformed or otherwise damaged by over-torque fastenings, shall be removed and new sheets applied shall be installed. Size and spacing of fasteners used in erection shall be installed. Size and spacing of fasteners used in erection shall be as recommended by manufacturer subject to the approval of the Engineer. All metal shavings shall be swept from roofs on completion to prevent rusting and discoloration. Use **Long Span Pre-Painted roofing**, **0.05mm thick** or otherwise specified. Use 10mm x 1m double sided metallic film as insulator. Present actual sample for Approval of Engineer/Architect before implementation. Use Purlins and Angle bars as specified on drawings by Designer.

A. Joint Sealing Materials

Joint sealing materials shall be provided to seal all joints in and around sealing strips at ridges, eaves and valleys, bolt holes before inserting fasteners, for all flashing and elsewhere as necessary to provide watertight construction.

B. Fastening

Pre-painted roofing sheets shall be fastened to the purlins by means of mounting brackets or self-tapping screws, hexagonal head with neoprene washer per manufacturer's recommendation and approved by the Engineer.

C. End Lap

Provide a minimum end lap of 250 mm.

D. Sheet Metal Flashing

Sheet metal flashing shall be secured to roofing with cadmium plated or zinc-coated sheet metal screws in accordance with the manufacturer's recommendation and subject to the approval the Engineer.

E. Flashing

Flashing shall be approved as indicated and where necessary to make the work watertight. Flashing shall not be bent at sharp angles, but shall be worked to as large a radius as possible. Exposed edges of counter-flashings shall be folded 12mm. End-laps in counter flashing shall not be less than 75mm and shall be made watertight with plastic cement.

F. Roof Accessories

I. Drain or Overflow Pipe shall be adequately provided to all concrete roof gutters or any other concrete work that catches drains or collects rain water. Pipe shall be 25 mm G.I. Pipe spaced at two (2) meters on center or as shown in the drawings. Roof drain shall be a product of a reputable manufacturer acceptable to the Engineer.

II. Weep holes shall be provided by the Contractor to allow free flow of water to drain from one level to lower level or to outer drains as shown in the drawings or as directed by the Engineer.

III. Downspout shall be zinc coated Galvanized Iron (G.I.) for downspout flushed connected in concrete wall/columns and shall by Polyvinyl Chloride (P.V.C.) pipe or embedded in concrete as shown on the drawings or as directed by the Engineer. G.I. downspout shall not be less than 50 mm x 100 mm and PVC downspout shall not be less than 75 mm in diameter. Downspout shall be fastened to the wall at top, bottom, and at intermediate point not to exceed 1.50 m on center with leather strap and fastener of metal compatible with downspout.

IV. Gutter. Where shown in the drawings, gutter shall be zinc coated Galvanized Iron, 0.05mm thick steel sheet. Support gutter on adjustable hangers spaced not more than 75 cm. on center or as directed by the Engineer.

G. Roof Framing. See detailed drawings and shop drawings for reference.

For roof frames, use the following materials:

50mm x 50mm x 6mm Angle Bar

50mm x 50mm x 3mm Angle Bar

40mm x 40mm x 3mm Angle Bar

10mm dia. RSB (Grade 40)

150mm x 65 x 20 x 2 Purlins

Installation Workmanship

1. Sheathing – layout the roof sheets in a manner that the side overlap faces away from the prevailing wind. Provide not less than 0.30 m develop on ends and not less than 1- ½ corrugation on side laps on both sides. Secure the roofing sheets to purlins by using G.I. rivets and 1" wide G.I. Ties.

2. Gutter – a connection of gutters shall be made by using brass rivets and fully joined by nikolite lead. Provide a minimum of 1% slope toward the downspout.
3. Downspout – shall be 2" x 4" plain G.I. sheets or colored PVC pipe as approved by the Engineer.
4. Flashing – shall be plain 0.05mm thick plain G.I. sheet over corrugated roofing of not less than 0.30% overlap extended G.I. Flashing until it covers the top portion of the firewall or parapet wall.

XIV. ELECTRICAL WORKS

A. Scope. The work contained in this section includes furnishing of all labor, equipment, tools and materials and performing all operations, including cutting, channeling and chasing necessary for the installation of complete wiring and conduit system, electrical equipment and electric service connection in accordance with this specification unless otherwise required in the drawings.

B. Requirements.

General. Unless indicated or specified otherwise herein, all materials and workmanship shall conform to the specifications and to the applicable standards, codes, regulations and specifications listed herein. Workmanship shall be of the highest grade. Electrical materials shall be new and approved by the Underwriters Laboratories, Inc. wherever standards have been established by the agency. Defective equipment or equipment damage in the course of installation shall either be replaced or repaired as directed by the Engineer. The contract drawings indicate the extent and general arrangement of the conduit and wiring system. If nay departures from the contract drawings are deemed necessary by the Contractor, details of such departures and the reasons thereto shall be submitted as soon as practicable to the Engineer for approval. No departure shall made without the prior written approval of the Engineer.

C. Materials

Standard Products. The materials shall be the standard product of manufacturers regularly engaged in the production of such equipment and shall be the manufacturer's latest standard design that complies with the specifications requirements.

D. Approval of Materials

The Contractor shall submit for approval a complete description of all materials to be used in the work. The description shall include catalog numbers, illustrations, diagrams, dimensional data, etc., as required to describe fully the materials.

E. Conduit and Conduit Fittings

Conduit shall be rigid metal conduit, hot dip galvanized, conforming to NSI Standard C180-1, "American Standard Specifications for Rigid Steel Conduit, Zinc Coated", unless otherwise shown in the drawings. The conduit fittings and covers, shall be galvanized, sherardized, or cadmium plated, grey iron or malleable iron castings. Composite rubber gasket shall be provided on all openings requiring covers. Outlets and pull boxes shall be of sizes and types shown in the drawings.

F. Wires and Cables

1. Conductors in conduits shall be copper, moisture and heat-resistant rubber or thermo-plastic insulated. In dry locations, wires and cables shall be type TW for sizes 8 sq.mm and smaller and type THW for sizes 14 sq.mm and larger. In damp or wet locations as defined by the National Electrical Code/Philippine Electrical Code, wires and cables shall be type THW, for sizes 8 sq.mm and smaller; and type RHW with neoprene jacket for sizes 14 sq.mm and larger. All conductors shall have 600 volts insulation unless otherwise specified in the drawings. Wire shall be stranded copper for 8 sq.mm and larger sizes. The number and sizes shall be as specified in the drawings.

G. Outlets

1. Each outlet in the wiring or raceway system shall be provided with an outlet box to suit the conditions encountered. Boxes for exposed work or in wet locations shall be of the cast metal type having threaded hubs. Boxes for concealed work shall be the cadmium-plated or zinc-coated sheet metal type. Each box shall have sufficient volume to accommodate the number of conductors entering the box in accordance with the requirements of the National Electrical Code/Philippines Electrical Code. Boxes shall not be less than 40 mm deep unless shallower boxes are required by structural conditions that are specifically approved by the Engineer. Ceiling and bracket outlet boxes shall not be less than 100 mm octagonal except that smaller boxes may be used where required by the particular fixtures to be installed. Switch and receptacle boxes shall be approximately 100 mm x 54 mm x 40 mm. Boxes installed in concealed locations shall be set flushed by the finished surfaces and shall be provided with the proper extension rings or plaster covers where required. Boxes shall be installed in a rigid and satisfactory manner and shall be supported by bar hangers in frame construction, or shall be fastened directly with wood screws on wood. Location of outlets shown on the drawings are approximates; the Contractor shall study the building plans in relation to the spaces and equipment

surrounding the outlet so that the lighting fixtures are symmetrically located according to the room layout. When necessary, with the approval of the Engineer, outlets shall be relocated to avoid interference with mechanical equipment or structural features.

H. Pull Boxes

1. Pull boxes shall be constructed of code-gage galvanized sheet metal of not less than the minimum size required by the National Electrical Code/Philippine Electrical Code. Boxes shall be furnished with screw fastened covers. Where several feeders pass through a common pull box, the feeders shall be tagged to indicate clearly their electrical characteristics, circuit number and panel designation.

I. Device Plates

1. Device plates of the one-piece shall be provided for all outlets, to suit the devices installed. Plates for exposed work shall be of zinc-coated sheet metal having rounded or beveled edges. Plate for concealed work shall be bake lite ivory. Screws shall be o metal with oval heads, having color to match the finish of the plate. Plate shall be installed with all four edges in continuous contact with similar devices. Plaster fillings shall not be permitted. Plates shall be installed vertically, use of sectional-type device plates shall not be permitted. Device plates for telephone inter-communication outlets shall have 10 mm opening in the center.

J. Receptacles

1. Receptacle shall be of the type and rating as shown in the drawings.

1.1. Duplex Receptacles shall be rated 15 amperes, 250 volts, 2 wire, 2- pole, for flush mounting or as indicated in the drawings.

1.2. Receptacle for air conditioning units shall rated 30A, 250V, 3-wires,

2-pole grounding receptacle for flush mounting or as indicated in the drawings.

K. Panel Boards

1. Panel board shall be of the dead-front safety type conforming to the Underwritters Laboratories, Inc., standard for panel board UL67, and provide with the size and number of circuits as indicated. Panel Board shall be the automatic circuit breaker type.

1.1. Circuit Breaker shall be molded bolt-on type with frame size and trip settings as shown on the drawings. Molded case circuit breakers shall conform to NEMA standard publication AB1. Tripping mechanism shall be thermal-magnetic with interrupting capacity of 18,000 amperes similar to “Mitsubishi NF breakers C-line type” or equivalent.

L. Safety Switch

1. Safety switch shall be general duty cartridge fuse type and spring assisted positive make and break mechanism full cover interlock and quick make, quick break mechanism. The switch shall be rated 250 volts with ampere rating as indicated in the drawing.

M. Lamp and Lighting Fixtures

1. Lamp and lighting fixtures of type and sizes as specified in the drawings shall be furnished and installed completely
   1.1. Incandescent lamps shall be inside frosted lamp, 220 volts, wattage as indicated in the plan.
   1.2. Fluorescent lamp shall be pre-heat type, cool white color characteristics and shall have complete energy saver type.
   1.3. Wall switches shall be of the totally enclosed type. Bodies shall be thermo-setting plastic compound. Wiring terminals shall be of the screw type. Not more than three switches shall be installed in a single plate position.
   1.4. Fixture shall conform to Under writers Laboratories, Inc., standard UL57. Fixtures are designated by letters and illustrated on the drawings. Illustrations shall be indicative of the general type desired and shall not restrict selection to fixture of any particular manufacture. Fixtures of similar design and equivalent light

distribution and brightness characteristics having equal finish and quality may be acceptable but subject to the approval of the Engineer.

1.5. See specifications on drawings for verification of lighting and electrical fixtures and conduits. Confirm with Engineer for approval.

N. Installation

1. Conduit System. The contractor shall install and test all embedded and exposed conduit, boxes, and fittings including all necessary hardware required for the electrical power, control, communication and lighting systems as shown on the drawings. Installation of all conduits, boxes, fittings, and accessories shall conform to the requirements of the National Electrical Code (NEC), and the Philippine Electrical Code (PEC) unless otherwise specified. During installations, due precaution shall be taken to protect the conduits and threads from mechanical injury. The ends of conduits shall be sealed in an approved manner during installation, whenever the work is interrupted and upon completion, runs shall be sealed by the use of caps and discs or plugs. The seals shall be maintained, except during inspection and tests, until the conductor is pulled in. Conduits shall be checked from constructions by pulling a wooden mandrel of the proper size through the conduit, whenever required or directed by the Engineer. All boxes and fittings shall be kept closed and protected from dirt, moisture and debris.

O. Installation of Imbedded Metal Conduit

1. Each run of conduit between boxes or equipment shall be electrically continuous. Threads shall conform to the American Standard for tapered pipe threads. Conduits shall be cut square, ends reamed and threads cut with approved dies. Running or non-tapered threads shall not be used. Conduits entering slip holes in boxes shall be secured with a locknut on each side of the box wall and terminated with a bushing.
2. All joints between lengths of conduits and threaded connections to boxes, fittings, and equipment enclosures shall be made watertight.
3. Conduits shall be sloped towards drain points. Conduits shall be rigidly supported and braced to avoid shifting during placement of concrete. Conduits extending out of the floors, wall, or beams shall be at tight angles to the surface.
4. Spacing of conduits shall be such as to permit the floe of concrete between them. A minimum spacing of not less than 5 cm. shall be maintained, except where conduits enter boxes. Where conduits are placed in two or more layers or rows, the conduits in the upper or inner layers shall be placed directly over or behind the lower or outer layers, respectively.
5. Conduits terminating at the face of the concrete for initial or future extensions as exposed runs shall be terminated with plugged couplings set flush with the floor, ceiling or wall. Galvanized iron plugs shall be provided for conduits which are to be extended in the future. Where it is not practical to employ flush couplings, the conduits ends shall be suitably boxed otherwise protected and plugged.
6. Conduits running in floors and terminating at motors or other equipment mounted on concrete bases shall be brought to up to the equipment within the concrete base wherever possible.
7. Conduit boxes shall be flush with the finished wall with covers and openings easily accessible. The contractor shall remove and reset all boxes not properly installed or shifted out of line during concreting to the satisfaction of the Engineer.
8. Conduits shall have long field bends wherever possible, but shall in no case have bends of smaller radius than that given in the National Electrical Code (NEC) / Philippine Electrical Code (PEC). Bends shall be made with a bending machine, or other approved devices which will not reduce the internal diameter of the conduit or injure the protective coatings. The bend shall be free of kinks, indentations, or flattened surfaces, heat shall not be applied. Factory-made elbows shall be used only where conduits turn out of floor slabs or at conduit termination.

P. Installation of Cancelled or Exposed Conduit

Conduit concealed or exposed shall be rigidly supported at intervals of not more than 1800mm and shall have runs installed parallel or perpendicular to the walls, structural members, or intersections of vertical plains and ceiling.

Q. Wiring System

1. Wiring Methods. Wiring in rigid steel conduits shall be used or as indicated in the drawings. Wiring for general purpose location shall be in accordance with the provisions of NEC general purpose installation. Branch circuit shall be used for any branch circuits unless otherwise noted on drawings for special system drawings. The conductors terminating at each wired outlet shall be left not less than 300mm long within the outlet devices or fixtures.
2. Where two or more pairs of conductors or circuits enter an outlet, the several pairs of circuits shall be neatly spliced and made mechanically and electrically secure to one or more single or multiple conductors.

R. Conductor Installation

All power, lighting, control and alarm conductors shall be continuous from outlet to outlet and no splice and shall be made except on outlet boxes. At least 300mm of free conductor shall be left on each conductor at each outlet to make splices or joints, except where it is intended to loop through outlet without splice or joints. Splices shall be mechanically strong and have conductivity equal to that of the conductors. Each splice shall be properly soldered or clamped. Tape as required to provide installation equal to that of the conductors shall be used for stranded wire terminals. All wiring shall be color coded in accordance with the National Electrical Code. Wire and cable shall be pulled in conduit using talc as lubricant.

S. Grounding System

1. General- The Contractor shall install a complete embedded electrical grounding system as shown in the drawings and described herein which shall be permanently and effectively ground conduits and non-current carrying metal parts. The overall resistance to grounds of the entire grounding system shall not exceed 25 ohms by measurement. Resistance to ground of over 25 ohms shall be corrected by driving an additional electride parallel to the original ground rod with no further resistance measurement required.
2. General Conductor – Ground conductor shall be here, soft drawn, stranded copper cables. All joint connections within the grounding system shall be made by means of connector suited for the particular joint. The cable be clean of all dirt, grease, and oxidation before connection are made.
3. Ground Rod – Ground Rod shall be copper-clod steel of not less than 20mm in diameter, 3 meters long, driven full length into the earth. Ground wire shall be secured to the upper end of the ground rod and ground wire attached securely thereto by means of bolted connection. PVC conduit pipes of schedule 20 shall be provided to protect the ground cable from physical damage.

T. Quality Assurance Provisions

1. After the installation is completed and before final acceptance of the project, the Engineer shall conduct the operating test. Equipment shall be demonstrated to operate in accordance with the requirement of this specification. The Contractor shall furnish all instrument, tools and personnel required for the test. All defects is closed as a result of such test hat are due to the fault of the Contractor shall be remedied by the Contractor to the satisfaction of the Engineer.

   Insulation resistance test shall be conducted conforming to the requirements o the Philippine Electrical Code. Transformer test shall include ratio, polarity, coreless, exciting current, high voltage, impulse, low voltage impulse, high voltage applied and induced tests.

U. Guarantee

1. The Contractor shall guarantee all work installed under this contract to be free from all defects for a period of one (1) year after acceptance of the project and shall agree and repair and make good at his own expense. Any and all defect which may develop in his work during the time if said defects arise due to poor workmanship and materials furnish by the Contractor.
2. The contractor must provide as built plan in soft and hard copy for final layout and specifications due to revisions and other changes made from the original plan.

V. Permit and Inspection

1. The Contractor shall obtain, at his own experience, all the necessary permits and Certificate of Electrical Inspection from the proper government authorities and the operation of the system upon completion.
2. The Contractor, shall, at his own expense, all the electrical plans for his work to the necessary scale and complete them with the necessary information and requirements as required by the government approving authorities concerned in issuing permits and certificate of Electrical Inspection.

XV. PLUMBING WORKS

A. Scope. This section consist of performing essential works in furnishing and installing

Piping materials and other devices and fixtures necessary to construct and complete the plumbing system in accordance with this specification unless otherwise specified in the drawing.

B. General. The work includes furnishing and installing water piping and

Appurtenances, sanitary and drainage piping, vents, plumbing fixtures and miscellaneous devices as shown in the drawings and as specified therein. No plumbing fixture devices, or piping shall be installed that will cause a cross connection or interconnection between potable water piping and polluted drain, soil or waste water piping.

1. Standard Products. Materials and equipment furnished under this specification shall be standard products of manufacturer regularly engaged in the production of such materials or equipment and shall be manufacturer's latest standard design that complies with the specification requirements.'
2. Defective Equipment. Defective equipment or fixtures damage in the course of installation or testing shall be replaced or repaired by the contractor in a manner approved by the Engineer.
3. Proposed Changes. If departures from the contract drawings are deemed necessary by the Contractor, details of such departures, including changes in related portions of the work, and the reasons thereof, shall be submitted as soon as practicable after contract award to the Engineer for written approval. Approved departures shall be made at no additional cost.
4. Utilities. Water and drainage piping shall be extended to points outside the building as indicated. Pipes shall be capped or plugged for final connection with the service pipes.
5. Code Compliance. All materials and installation shall comply with the National Plumbing Code unless modified by the specifications.

C. Materials.

1. Soil, Waste, Drain, Vent Pipes and Fittings.

1.1 Underground soil, waste and drain piping shall be PVC Piping conforming

To the National Plumbing Code

1.2 Above ground soil waste, drain and vent piping shall be polyvinyl chloride

Pipe conforming to ASTD 2729 or as had shown in the drawing.

1.3 Flashing. Vent pipes shall be flashed and made watertight at the roof with 4 pound sheet lead or 16 ounce sheet copper, Flashing shall extend not less than 200mm from the vent pipes in all directions. Flashing shall be turned down into the pipes or hubs.

1.4 Traps. Each Fixtures and pieces of equipment requiring connections to the drainage system shall be equipped with a metal trap. Traps installed on threaded pipe shall be recess drainage pattern.

D. Water Pipe and Fittings

1. Galvanized Steel pipe for below or above ground cold and hot water lines shall conform to ASTM A120. Fittings shall be malleable-iron, zinc-coated, screwed, unless otherwise indicated in the plan. Note: Use updated materials for water lines, PPR pipes with equivalent fittings will be used. Present samples for approval.
2. Valves shall be brass or bronze with rough bodies and finished trimmings, except that valves on chromium-plated brass pipe shall be finished and chromium-plated.
3. Hose Bibbs shall be of rough brass body, with composition disc. Hand wheel, 19mm hose end and 12mm female inlet.

E. Insulation. Insulations shall be ¾-inch thick mineral fiber insulation provided with a 7-1/2 ounce standard canvass jacket material.

F. Plumbing and Fixture Trim. Plumbing and fixture trim shall be provided complete with fittings. Exposed traps and supply pipes for all fixtures and equipment shall be connected to the rough piping system at the wall, unless otherwise indicated. Floor plates, wall plates, and escutcheons shall be as required by the fixtures specified. Stops shall be provided at each fixture. Plumbing fixtures compound shall be used for fixture connection between earthenware fixtures and flanges on soil pipe. Closet volts shall be not less than 6mm in diameter and shall be equipped with chromium-plated nuts and washers. The exposed piping, fittings, and trimmings shall be chromium-plated or nickel-plated brass with polished bright surfaces.

1. Water Closets shall be as any approved quality or its equivalent. Tank Fittings shall be of approved equivalent.
2. Built-in Urinal Gutter. Built-in urinal gutter and step shall be glazed tile finish except for the step which shall be unglazed and shall be in accordance with the plans and specifications. Where shown on the drawings, the Contractor shall complete set of "American Standard" R-303, Universal Strainer with beehive grid, brass chrome-plated, for 50mm diameter C.I. Soil Pipe installation or any approved equivalent.
3. Lavatories including fittings shall be as manufactured by any approved quality or equivalent.
4. Built-in Slop Sink. Built-in slop sink shall be in accordance with the detailed drawings and as specified herein.

a. Floor and Wall ----------Glazed Tiles
b. Fittings and accessories ----------Sink Faucet

100mm x 100mm

x 50mm brass strainer

50mm diameter P-Trap

G. Other Fixtures. Other fixtures, fittings and accessories shown on or not shown on the drawings but necessary to complete the work shall be provided by the Contractor and approved by the Engineer/Architect before purchase and implementation.

H. Installation

1. Water Pipe and Fittings

1.1 Pipes shall be installed as indicated in the drawings. The pipes shall be cut accurately to measurement, established at the building by the Contractor and shall be taken not to weaken the structural portion of the building. All piping above ground shall be run parallel with the lines of the building unless otherwise shown or noted on the drawings.

1.2 Joints. After cutting and before threading, all pipes shall be reamed and shall have burrs removed. All screw joints shall be made with graphite and oil or with an approved graphite compound applied to make threads only. Threads shall be full cut, and not more than three threads on pipe shall remain exposed. Caulking of threaded joints to prevent leaks shall not be permitted. Unions shall be provided where required for disconnections.

1.3 Fittings. Branches in piping and changes in pipe sizes shall be provided with necessary fittings as shown in the drawings.

1.4 Valves. Valves shall be provided on all supplied fixtures as specified. Where valves are indicated on the drawings in connection with run-outs, risers, branches and mains, they shall be in accordance with this specification.

1.5 Insulation. All hot water piping, if any, after being tested shall be cleaned and insulated with a minimum of 19mm insulation. Chromium plated supply piping line to plumbing fixtures shall not be installed.

I. Plumbing Fixtures. Fixtures secured to concrete masonry wall shall be cleaned and insulated with aluminum of 19mm brass bolts with 20 threads to the inch and of sufficient length to extend at least 75mm into solid concrete or hollow block work; fitted with a loose tubing or sleeve inserts; shall be securely anchored and installed flushed with the finished wall; and shall be completely concealed when the fixture are installed.

1. Fixture support and fastenings. All fixtures and equipment shall be supported and fastened in a satisfactory manner.
2. Where through bolts are used, they shall be provided with plates or washer at the back set so that head, nuts and washers will be concealed by plaster. Bolts and nuts shall be hexagonal and exposed bolts, nuts, cap nuts and screw heads shall be provided with chromium plated brass washers.

J. Waste, Drain and Vent Pipe and Fittings

1. Pipes. Horizontal soil and waste pipe shall be a grade of 20% where possible, but in any case not less than 1%. Vent pipes in roof spaces shall be run as close as possible to underside of roof, with horizontal piping pitches down to stacks without forming traps in pipes using fittings as required. Where circuits vent pipe from any fixtures or line of fixture shall be connected to a vent line carrying other fixtures, the connection shall be at least 120mm above floor on which the fixtures are located to prevent the use of any vent lines as waste.
2. Fittings. All changes in pipe sizes on soil, waste lines shall be made with reducing fittings or recessed reducers. All changes in direction shall be made by the appropriate use of forty five (45) degree wyes, half wye, long sweep, quarter bend, sixth, eight or sixteenth bends, except that sanitary tees may be used on vertical stacks. Where it becomes necessary to use short radius fittings in any other locations, the approval of the Engineer shall be obtained before they are installed.
3. Union connections. Slips joint shall be permitted only in traps or in the inlet side of the trap. Tucker or hub drainage fittings shall be used for making union connection wherever practicable in connection with dry vents.
4. Joints. All joints shall be air and water tight. For joining pipes the following materials shall be used:

4.1 All PVC pipes shall be joined by the manufacturer's recommended adhesive as approved by the Engineer.

4.2 Cast Iron Pipe. All joints in bell and spigot cast iron soils, waste and vent pipes, or between east iron pipes, waste and vent pipe and threaded pipe or caulked ferrules shall be firmly packed with oakum or hemp and caulked with lead at least 25mm deep.

4.3 Threaded joints shall be American National Standard Taper screw threads with graphite and oil compound applied to the male thread. Connections between pipes and soil pipe shall be similar and the threaded pipe shall have a ring or hard coupling screwed on to form spigot end.

K. Excavation and Backfill

1. Excavating. Trenches for all underground pipes shall be excavated to the required depth and grade as shown in the drawings and in accordance with earthwork.
2. Backfilling. Pipe lines shall have been tested, inspected and approved by the Engineer prior to backfilling. Backfill materials and operation shall be in accordance with section on earthwork.

L. Quality Assurance Provisions

1. Tests. The Contractor shall conduct all tests required and shall furnish all equipment, labor and materials necessary. All defects disclosed as the result of the test shall be repaired or remedied and the system retested, until the results are satisfactory to the Engineer.

1.1 Water piping shall be subjected to a hydrostatic pressure test of 100 pounds per square inch.

1.2 Sanitary Piping. Before the installation of any fixtures, the end of the system shall be capped and all lines filled with water to the roof and allowed to stand 30 minutes without leakage. After the fixtures are set, a smoke or equivalent test shall be made using an approved apparatus. Test within building shall be made piping exposed. Underground piping shall be tested before backfilling.

XVI. ELECTRONICS WORKS

A. Scope. The work contained in this section includes furnishing of all labor, equipment, tools and materials and performing all operations, including cutting, channeling and chasing necessary for the installation of complete wiring and conduit system, electrical equipment and electric service connection in accordance with this specification unless otherwise required in the drawings.

B. Requirements.

General. Unless indicated or specified otherwise herein, all materials and workmanship shall conform to the specifications and to the applicable standards, codes, regulations and specifications listed herein. Workmanship shall be of the highest grade. Electrical and Electronics materials shall be new and approved by the Underwriters Laboratories, Inc. wherever standards have been established by the agency. Defective equipment or equipment damage in the course of installation shall either be replaced or repaired as directed by the Engineer. The contract drawings indicate the extent and general arrangement of the conduit and wiring system. If nay departures from the contract drawings are deemed necessary by the Contractor, details of such departures and the reasons thereto shall be submitted as soon as practicable to the Engineer for approval. No departure shall made without the prior written approval of the Engineer.

C. Materials

Standard Products. The materials shall be the standard product of manufacturers regularly engaged in the production of such equipment and shall be the manufacturer's latest standard design that complies with the specifications requirements, and with warranty for any repairs or replacements..

D. Approval of Materials

The Contractor shall submit for approval a complete description of all materials to be used in the work. The description shall include catalog numbers, illustrations, diagrams, dimensional data, etc., as required to describe fully the materials.

E. Conduit and Conduit Fittings

Conduit shall be of standards and approved by Engineer and complying to the desired specifications and requirements.

F. Wires and Cables

1. Conductors in conduits shall be copper, moisture and heat-resistant rubber or thermo-plastic insulated. In dry locations, wires and cables shall be type TW for sizes 8 sq.mm and smaller and type THW for sizes 14 sq.mm and larger. In damp or wet locations as defined by the National Electrical Code/Philippine Electrical Code, wires and cables shall be type THW, for sizes 8 sq.mm and smaller; and type RHW with neoprene jacket for sizes 14 sq.mm and larger. All conductors shall have 600 volts insulation unless otherwise specified in the drawings. Wire shall be stranded copper for 8 sq.mm and larger sizes. The number and sizes shall be as specified in the drawings.

G. Outlets

1. Each outlet in the wiring or raceway system shall be provided with an outlet box to suit the conditions encountered. Boxes for exposed work or in wet locations shall be of the cast metal type having threaded hubs. Boxes for concealed work shall be the cadmium-plated or zinc-coated sheet metal type. Each box shall have sufficient volume to accommodate the number of conductors entering the box in accordance with the requirements of the National Electrical Code/Philippines Electrical Code. Boxes shall not be less than 40 mm deep unless shallower boxes are required by structural conditions that are specifically approved by the Engineer. Ceiling and bracket outlet boxes shall not be less than 100 mm octagonal except that smaller boxes may be used where required by the particular fixtures to be installed. Switch and receptacle boxes shall be approximately 100 mm x 54 mm x 40 mm. Boxes installed in concealed locations shall be set flushed by the finished surfaces and shall be provided with the proper extension rings or plaster covers where required. Boxes shall be installed in a rigid and satisfactory manner and shall be supported by bar hangers in frame construction, or shall be fastened directly with wood screws on wood. Location of outlets shown on the drawings are approximates; the Contractor shall study the building plans in relation to the spaces and equipment surrounding the outlet so that the lighting fixtures are symmetrically located according to the room layout. When necessary, with the approval of the Engineer, outlets shall be relocated to avoid interference with mechanical equipment or structural features.

F. CCTV and Structured Cabling

1. CCTV cameras and other accessories must comply with the required specifications according to the Engineers details and of standard, quality tested materials. Includes Accessories.

2. All installation to be properly conducted by trained and authorized technicians and

Supervised for correct installation. Refer to the Engineer for any revisions on site.

3. After installation sales includes testing of units and other facilities related for

Approval of Engineer and owner before turn-over of product.

XVII. MECHANICAL WORKS

A. Scope. The work contained in this section includes furnishing of all labor, equipment, tools and materials and performing all operations, including cutting, channeling and chasing necessary for the installation of complete wiring and conduit system, electrical equipment and electric service connection in accordance with this specification unless otherwise required in the drawings.

B. Requirements.

General. Unless indicated or specified otherwise herein, all materials and workmanship shall conform to the specifications and to the applicable standards, codes, regulations and specifications listed herein. Workmanship shall be of the highest grade. Electrical and Electronics materials shall be new and approved by the Underwriters Laboratories, Inc. wherever standards have been established by the agency. Defective equipment or equipment damage in the course of installation shall either be replaced or repaired as directed by the Engineer. The contract drawings indicate the extent and general arrangement of the conduit and wiring system. If nay departures from the contract drawings are deemed necessary by the Contractor, details of such departures and the reasons thereto shall be submitted as soon as practicable to the Engineer for approval. No departure shall made without the prior written approval of the Engineer.

C. Materials

Standard Products. The materials shall be the standard product of manufacturers regularly engaged in the production of such equipment and shall be the manufacturer's latest standard design that complies with the specifications requirements, and with warranty for any repairs or replacements. Details of fixtures are as follows:

C.1 Fire Hose Cabinet

This includes installation and commissioning of Fire hose cabinet and all accessories included as a Completed set. All Fire code standards must be applied and followed. Only approved and Licensed materials must be installed and subject for inspection. 100 ft. minimum hose reel length is required as well as new and sealed Extinguishers. Rough ins and pipes to be of superior Quality.

D. Approval of Materials

The Contractor shall submit for approval a complete description of all materials to be used in the work. The description shall include catalog numbers, illustrations, diagrams, dimensional data, etc., as required to describe fully the materials.

E. Conduit and Conduit Fittings

Conduit shall be of standards and approved by Engineer and complying to the desired specifications and requirements.

F. Warranty and Guarantee

All fixtures to be properly tested and evaluated before turn-over and acceptance. And with Approval of Engineer and owner for acceptance. Warranty and after sales support to be provided by contractor and or Installation company.

XVIII. PAYMENT AND MEASUREMENT

A. Payment shall be made at the Contract unit price or lump sum price of the various pay items in the Bid Schedule, which payment shall constitute full compensation for furnishings all materials, labor, equipment, tools, and other construction contingencies including profit, fees, and other expenses comprising the total and complete cost of all the work involved in each work item as shown in the plans, and as specified in this technical specification and the special provisions and as directed by the Engineer. When the contract does not include a contract pay item for associated or ancillary work requires to complete the work specified in the Bid Schedule, the cost shall be considered as included in the price paid for the listed bid

B. Measurement for Payment of work covered by the various sections of the Technical Specifications shall be based on the net quantity required for the work based on the drawings unless otherwise directed by the Engineer. Allowance for any bulking, shrinkage, consolidation or loss of material shall be deemed to have been taken into account in the Contractor's unit prices. Only actual quantities of work performed shall be measured and paid for. In the cases of lump sum bid items, the value of the actual work performed shall be calculated by the Engineer and shall be the basis for progress payments.

Section VII. Drawings

Pls. see attached Drawings/ Plans

Section VIII. Bill of Quantities

Contract Reference Number*:* ***IB No. 22-07-21***
Name of the Contract: ***Construction of URGP Building – Phase II***
Location of the Contract: ***West Visayas State University***
Calendar Days: ***150 Calendar days***

Item No.	*Item Description*	*Quantity*	*Unit*	*Price ceiling (Total)*	*Unit Price*	*Total Price*
1.	***General Requirements***					
1.2	*Safety Hazards*	*1.00*	*lot*	***45,212.01***		
1.3	*As-Built Plans*	*1.00*	*lot*	***5,000.00***		
1.4	*Testing of Materials*	*1.00*	*lot*	***5,000.00***		
1.5	*Temporary Facility (site enclosure, office, etc.)*	*146.00*	*ln.m.*	***159,866.28***		
2.	***Reinforced Concrete Works (Main Building)***					
2.1	*Concreting*	*53.90*	*cu.m.*	***442,688.40***		
2.2	*Reinforcement*	*8,237.53*	*kg.*	***833,248.05***		
2.3	*Formworks & Scaffoldings*	*507.25*	*sq.m.*	***398,003.76***		
3.	***Masonry Works (Main Building)***					
3.1	*6" CHB*	*331.48*	*sq.m.*	***588,411.18***		
4.	***Reinforced Concrete Works (Façade)***					
4.1	*Concreting*	*46.00*	*cu.m.*	***378,214.20***		
4.2	*Reinforcement*	*9,218.31*	*kg.*	***944,441.92***		
4.3	*Formworks & Scaffolding*	*447.39*	*sq.m.*	***397,674.90***		
5.	***Masonry Works (Façade)***	*360.00*	*sq.m.*	***633,349.51***		
6.	***Plastering Works***	*1,141.40*	*sq.m.*	***379,418.76***		
7.	***Waterproofing Works***	*525.98*	*sq.m.*	***200,145.96***		
8.	***Metal Works***					
8.1	*Structural Steel (Roof Trusses/ Struts/ Purlins, etc.)*	*1.00*	*lot*	***1,005,924.35***		
9.	***Roofing Works***	*1.00*	*lot*	***1,178,447.26***		
10.	***Plumbing Works***	*1.00*	*lot*	***145,735.38***		
11.	***Windows***	*1.00*	*lot*	***721,944.72***		
	--Nothing Follows--					
	TOTAL BID PRICE					

Submitted by:

_____
Name of Representative of the Bidder

_____
Position

_____
Name of Bidder

_____
Date

Section IX. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

(Bidder should submit only one copy labeled "ORIGINAL")

Class "A" Documents

Legal Documents

☐ (a) Valid and updated PhilGEPS Certificate of Platinum Registration and Membership ONLY for purposes of determining eligibility in accordance with GPPB Resolution No. 015-2021. Please see attached sample of Revised PhilGEPS Certificate of Platinum Registration and Membership;

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) Philippine Contractors Accreditation Board (PCAB) License; **or** Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid; **and**

☐ (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;**

Key Personnel	***General Experience***	***Relevant Experience***
No personnel must occupy more than two (2) positions in the list of the contractor's key personnel to be assigned to the contract to be bid. The submission should include curriculum vitae of the key personnel including licenses; 1. Valid PRC license for registered Engineers, Architects and Master Plumber; 2.Certificate of Accreditation as Materials Engineer issued by DPWH and 3. Certificate of completion of DOLE prescribed training (COSH) for Safety Officer.		
Resident Engineer	*Building Construction*	*at least 3 years*
Project Manager	*Building Construction*	*at least 3 years*
Architect	*Building Construction*	*at least 3 years*
Master Plumber	*Building Construction*	*at least 3 years*
Materials Engineer	*Building Construction*	*at least 3 years*
Safety Officer	*Building Construction*	*at least 3 years*

(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**

Equipment	***Capacity***	***Number of Units***
Bar Cutter	*Standard*	*1*
Bar Bender	*Standard*	*1*
1-bagger Mixer	*1-bagger*	*1*
Welding Machine	*150-300 Amperes*	*1*
Hauling Truck	*5 cu.m.*	*1*
Concrete Vibrator	*Standard*	*2*

☐ (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 audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; **and**

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

Class "B" Documents

☐ (j) 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
(Bidder should submit only one copy labeled "ORIGINAL")

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

Other documentary requirements under RA No. 9184

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

☐ (c) 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**

☐ (d) Cash Flow by Quarter.

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 the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines[2] 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 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: _____

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

Performance Securing Declaration (Revised)

[if used as an alternative performance security but it is not required to be submitted with the Bid, as it shall be submitted within ten (10) days after receiving the Notice of Award]

REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

PERFORMANCE SECURING DECLARATION

Invitation to Bid: [Insert Reference Number indicated in the Bidding Documents]

To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, to guarantee the faithful performance by the supplier/distributor/manufacturer/contractor/consultant of its obligations under the Contract, I/we shall submit a Performance Securing Declaration within a maximum period of ten (10) calendar days from the receipt of the Notice of Award prior to the signing of the Contract.

2. I/We accept that: I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of one (1) year for the first offense, or two (2) years **for the second offense**, upon receipt of your Blacklisting Order if I/We have violated my/our obligations under the Contract;

3. I/We understand that this Performance Securing Declaration shall cease to be valid upon:
   a. issuance by the Procuring Entity of the Certificate of Final Acceptance, subject to the following conditions:
      i. Procuring Entity has no claims filed against the contract awardee;
      ii. It has no claims for labor and materials filed against the contractor; and
      iii. Other terms of the contract; or
   b. replacement by the winning bidder of the submitted PSD with a performance security in any of the prescribed forms under Section 39.2 of the 2016 revised IRR of RA No. 9184 as required by the end-user.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month] [year] at [place of execution].

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Bid Securing Declaration Form

[shall be submitted with the Bid if bidder opts to provide this form of bid security]

REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

BID SECURING DECLARATION

Project Identification No.: *[Insert number]*

To: *[Insert name and address of the Procuring Entity]*

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.

2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f),of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.

3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:

    a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
    b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
    c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of *[month] [year]* at *[place of execution]*.

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Omnibus Sworn Statement (Revised)

[shall be submitted with the Bid]

REPUBLIC OF THE PHILIPPINES)

CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. *[Select one, delete the other:]*

   [If a sole proprietorship:] I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

   [If a partnership, corporation, cooperative, or joint venture:] I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. *[Select one, delete the other:]*

   [If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

   [If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable;)];

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. *[Select one, delete the rest:]*

   [If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

   [If a partnership or cooperative:] None of the officers and members of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a corporation or joint venture:] None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and

8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
   a. Carefully examining all of the Bidding Documents;
   b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
   c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
   d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

10. **In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.**

IN WITNESS WHEREOF, I have hereunto set my hand this __ day of ___, 20__ at _____, Philippines.

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Contract Agreement Form for the Procurement of Infrastructure Projects (Revised)

[not required to be submitted with the Bid, but it shall be submitted within ten (10) days after receiving the Notice of Award]

CONTRACT AGREEMENT

THIS AGREEMENT, made this *[insert date]* day of *[insert month]*, *[insert year]* between *[name and address of PROCURING ENTITY]* (hereinafter called the "Entity") and *[name and address of Contractor]* (hereinafter called the "Contractor").

WHEREAS, the Entity is desirous that the Contractor execute *[name and identification number of contract]* (hereinafter called "the Works") and the Entity has accepted the Bid for *[contract price in words and figures in specified currency]* by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, *viz.*:

   a. Philippine Bidding Documents (PBDs);
   - i. Drawings/Plans;
   - ii. Specifications;
   - iii. Bill of Quantities;
   - iv. General and Special Conditions of Contract;
   - v. Supplemental or Bid Bulletins, if any;

   b. Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

   Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (*e.g.*, Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

   c. Performance Security;

   d. Notice of Award of Contract and the Bidder's conforme thereto; and

   e. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. **Winning bidder agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.**

3. In consideration for the sum of *[total contract price in words and figures]* or such other sums as may be ascertained, *[Named of the bidder]* agrees to *[state the object of the contract]* in accordance with his/her/its Bid.

4. The *[Name of the procuring entity]* agrees to pay the above-mentioned sum in accordance with the terms of the Bidding.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

[Insert Name and Signature] *[Insert Signatory's Legal Capacity]* *for:* *[Insert Procuring Entity]*	*[Insert Name and Signature]* *[Insert Signatory's Legal Capacity]* *for:* *[Insert Name of Supplier]*

Acknowledgment

[Format shall be based on the latest Rules on Notarial Practice]

Republic of the Philippines