

DEPARTMENT OF SCIENCE AND TECHNOLOGY
PHILIPPINE SCIENCE HIGH SCHOOL-BICOL REGION CAMPUS
TAGONGTONG, GOA, CAMARINES SUR

Procurement for the
***COMPLETION OF ACADEMIC
BUILDING III***



Republic of the Philippines
Department of Science and Technology
PHILIPPINE SCIENCE HIGH SCHOOL-BICOL REGION CAMPUS
Tagongtong, Goa, Camarines Sur



INVITATION TO BID FOR THE COMPLETION OF ACADEMIC BUILDING III

1. The **Philippine Science High School-Bicol Region Campus**, through the **GAA 2020** intends to apply the sum of **FIVE MILLION EIGHT HUNDRED FIFTY-SIX THOUSAND FIVE HUNDRED (P5,856,500.00) PESOS** being the Approved Budget for the Contract (ABC) to payments under the contract for the **COMPLETION OF ACADEMIC BUILDING III**. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The **Philippine Science High School-Bicol Region Campus** now invites bids for the completion of the three-storey **ACADEMIC** building which covers works to complete the existing structure specifically intended for academic purposes. Completion of the Works is required **within one hundred fifty (150) calendar days**. Bidders should have completed, within ten (10) years 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 Implementing Rules and Regulations (IRR) of Republic Act 9184(RA9184), otherwise known as the “ Government Procurement Reform Act”.

Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least seventy five percent (75%) interest or outstanding capital stock belonging to citizens of the Philippines.

4. Interested bidders may obtain further information from **Philippine Science High School-Bicol Region Campus** and inspect the Bidding Documents at the address given below from **7:30 AM to 4:30 PM**.
5. A complete set of Bidding Documents may be acquired by interested Bidders on **July 12, 2020** from the address 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 **Ten Thousand Pesos only (PhP 10,000.00)**.


It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

6. The **Philippine Science High School-Bicol Region Campus** will hold Pre-Bid Conference on July 20, 2020, 1:30 p.m. at the Board Room, Administration Building, Philippine Science High School-Bicol Region Campus which shall be open to prospective bidders.


7. Bids must be duly received by the BAC Secretariat at the address below on or before **August 3, 2020 at 1:30 in the afternoon**. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 18.

Bid opening shall be on August 3, 2020, 1:35 p.m. at the Board Room, Administration Building Philippine Science High School-Bicol Region Campus. Bids will be opened in the presence of the bidders' representatives who choose to attend at the address below. Late bids shall not be accepted.

8. Eligible Bidders shall submit a Certified True Copy of valid PCAB license for Size Range – Small B, License Category C & D, General Engineering.
9. The **Philippine Science High School-Bicol Region Campus** reserves the right to accept or reject any bid, to annul the bidding process, and to reject all bids at any time prior to contract award, without thereby incurring any liability to the affected bidder or bidders.
10. For further information, please refer to:


JOY MELGA. B. OLAZO
Head- BAC Secretariat

Address: Philippine Science High School-Bicol Region Campus
Tagongtong, Goa, Camarines Sur
Telefax: **09175801318**
Email Address: ***bac@brc.pshs.edu.ph***


SEVEDEO J. MALATE
BAC Chairperson

1. Documents Comprising the Bid: Eligibility and Technical Components

The **first envelope** shall contain the following **eligibility** and **technical documents**:

(a) Eligibility Documents –

Class “A” Documents

- (i) PhilGEPS Certificate of Registration and Membership in accordance with Section 8.5.2 of the IRR, except for foreign bidders participating in the procurement by a Philippine Foreign Service Office or Post, which shall submit their eligibility documents under Section 23.1 of the IRR, provided, that the winning bidder shall register with the PhilGEPS in accordance with Section 37.1.4 of the IRR;
- (ii) Statement 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

Statement of the Bidder’ s Single Largest Completed Contract (SLCC) similar to the contract to be bid, in accordance with ITB Clause 5.4.

The two statements required above shall indicate for each contract the following:

- (ii.1) name of the contract;
- (ii.2) date of the contract;
- (ii.3) contract duration;
- (ii.4) owner’ s name and address;
- (ii.5) nature of work;
- (ii.6) contractor’ s role (whether sole contractor, subcontractor, or partner in a JV) and percentage of participation;
- (ii.7) total contract value at award;
- (ii.8) date of completion or estimated completion time;
- (ii.9) total contract value at completion, if applicable;
- (ii.10) percentages of planned and actual accomplishments, if applicable; and
- (ii.11) value of outstanding works, if applicable.

The statement of the Bidder’ s SLCC shall be supported by the Notice of Award and/or Notice to Proceed, Project Owner’ s Certificate of

Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory. In case of contracts with the private sector, an equivalent document shall be submitted;

- (iii) Unless otherwise provided in the **BDS**, a valid special PCAB License in case of joint ventures, and registration for the type and cost of the contract for this Project;
- (iv) Audited financial statements, stamped “received” by the Bureau of Internal Revenue (BIR) or its duly accredited and authorized institutions, for the preceding calendar year, which should not be earlier than two (2) years from bid submission;
- (v) NFCC computation in accordance with ITB Clause 5.5.

Class “B” Documents

- (vi) If applicable, Joint Venture Agreement (JVA) in accordance with RA 4566.

(b) Technical Documents –

- (i) Bid security in accordance with **ITB** Clause 18. The Bidder shall submit Bid Securing Declaration or any form of Bid Security in an amount stated in the **BDS**:
 - (i.1) Cash or cashier’ s/manager’ s check, bank draft/guarantee or an irrevocable letter of credit issued by a universal or commercial bank;
 - (i.2) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.
- (ii) Project Requirements, which shall include the following:
 - (ii.1) Organizational chart for the contract to be bid;
 - (ii.2) List of contractor’ s 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. These personnel must meet the required minimum years of experience set in the **BDS**; and
 - (ii.3) 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, which must meet the minimum requirements for the contract set in the **BDS**; and

- (iii) Omnibus Sworn Statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in the Bidding Forms.

2. Documents Comprising the Bid: Financial Component

The **second envelope** shall contain the following **financial documents**:

- i. Lump sum bid prices, which shall include the detailed engineering cost, in prescribed Bid Form;
- ii. Detailed estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals used in coming up with the bid; and
- iii. Cash flow by the quarter and payments schedule

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Section II. Instructions to Bidders

A. General

1. Scope of Bid

- 1.2. The Procuring Entity named in the **BDS**, invites bids for the design and construction of works, as described in Section VI. Terms of Reference / Specifications.
- 1.3. The name, identification, and number of lots specific to this bidding are provided in the **BDS**. The contracting strategy and basis of evaluation of lots is described in **ITB** Clause 27.
- 1.4. The successful Bidder will be expected to complete the Works by the intended completion date specified in **SCC** Clause 1.17.

2. Source of Funds

The Procuring Entity has a budget or received funds from the Funding Source named in the **BDS**, and in the amount indicated in the **BDS**. It intends to apply part of the funds received for the Project, as defined in the **BDS**, to cover eligible payments under the Contract for the Works.

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

- 3.1. Unless otherwise specified in the **BDS**, the Procuring Entity, as well as bidders and contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. In pursuance of this policy, the Funding Source:
 - (a) defines, for purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves, others, or induce others to do so, by misusing the position in which they are placed, and includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; entering, on behalf of the Procuring Entity, into any contract or transaction manifestly and grossly disadvantageous to the same, whether or not the public officer profited or will profit thereby, and similar acts as provided in Republic Act 3019;
 - (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practices among Bidders (prior to or after Bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition;
 - (iii) "collusive practices" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Procuring Entity, designed to establish bid prices at artificial, non-competitive levels; and
 - (iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;

- (v) “ obstructive practice” is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to an administrative proceedings or investigation or making false statements to investigators in order to materially impede an administrative proceedings or investigation of the Procuring Entity or any foreign government/foreign or international financing institution into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the administrative proceedings or investigation or from pursuing such proceedings or investigation; or
 - (bb) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Entity or any foreign government/foreign or international financing institution herein.
 - (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the Contract; and
 - (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded Contract funded by the Funding Source if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing or, or in executing, a Contract funded by the Funding Source.
- 3.2. Further, the Procuring Entity will seek to impose the maximum civil, administrative, and/or criminal penalties available under the applicable laws on individuals and organizations deemed to be involved in any of the practices mentioned in **ITB** Clause 3.1(a).
- 3.3. Furthermore, the Funding Source and the Procuring Entity reserve the right to inspect and audit records and accounts of a contractor in the bidding for and performance of a contract themselves or through independent auditors as reflected in the **GCC** Clause 34.

4. Conflict of Interest

- 4.1. All Bidders found to have conflicting interests shall be disqualified to participate in the procurement at hand, without prejudice to the imposition of appropriate administrative, civil, and criminal sanctions. A Bidder may be considered to have conflicting interests with another Bidder in any of the events described in paragraphs (a) through (c) and a general conflict of interest in any of the circumstances set out in paragraphs (d) through (g) below:
- (a) A Bidder has controlling shareholders in common with another Bidder;
 - (b) A Bidder receives or has received any direct or indirect subsidy from any other Bidder;
 - (c) A Bidder has the same legal representative as that of another Bidder for purposes of this Bid;

- (d) A Bidder has a relationship, directly or through third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder or influence the decisions of the Procuring Entity regarding this bidding process;
- (e) A Bidder submits more than one bid in this bidding process. However, this does not limit the participation of subcontractors in more than one bid;
- (f) A Bidder who participated as a consultant in the preparation of the design or technical specifications of the goods and related services that are the subject of the bid; or
- (g) A Bidder who lends, or temporarily seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.

4.2. In accordance with Section 47 of the IRR of RA 9184, all Bidding Documents shall be accompanied by a sworn affidavit of the Bidder that it is not related to the Head of the Procuring Entity (HoPE), members of the Bids and Awards Committee (BAC), members of the Technical Working Group (TWG), members of the BAC Secretariat, the head of the Project Management Office (PMO) or the end-user unit, and the project consultants, by consanguinity or affinity up to the third civil degree. On the part of the Bidder, this Clause shall apply to the following persons:

- (a) If the Bidder is an individual or a sole proprietorship, to the Bidder himself;
- (b) If the Bidder is a partnership, to all its officers and members;
- (c) If the Bidder is a corporation, to all its officers, directors, and controlling stockholders;
- (d) If the Bidder is a cooperative, to all its officers, directors, and controlling shareholders or members; and
- (e) If the Bidder is a joint venture (JV), the provisions of items (a), (b), (c) or (d) of this Clause shall correspondingly apply to each of the members of the said JV, as may be appropriate.

Relationship of the nature described above or failure to comply with this Clause will result in the automatic disqualification of a Bidder.

5. Eligible Bidders

5.1. Unless otherwise indicated in the **BDS**, the following persons shall be eligible to participate in this Bidding:

- (a) Duly licensed Filipino citizens/sole proprietorships;
- (b) Partnerships duly organized under the laws of the Philippines and of which at least seventy five percent (75%) of the interest belongs to citizens of the Philippines;

- (c) Corporations duly organized under the laws of the Philippines, and of which at least seventy five percent (75%) of the outstanding capital stock belongs to citizens of the Philippines;
 - (d) Cooperatives duly organized under the laws of the Philippines.
 - (e) Persons/entities forming themselves into a JV, i.e., a group of two (2) or more persons/entities that intend to be jointly and severally responsible or liable for a particular contract: Provided, however, that, in accordance with Letter of Instructions No. 630, Filipino ownership or interest of the joint venture concerned shall be at least seventy five percent (75%): Provided, further, that joint ventures in which Filipino ownership or interest is less than seventy five percent (75%) may be eligible where the structures to be built require the application of techniques and/or technologies which are not adequately possessed by a person/entity meeting the seventy five percent (75%) Filipino ownership requirement: Provided, finally, that in the latter case, Filipino ownership or interest shall not be less than twenty five percent (25%). For this purpose, Filipino ownership or interest shall be based on the contributions of each of the members of the joint venture as specified in their JVA.
- 5.2. The Procuring Entity may also invite foreign bidders when provided for under any Treaty or International or Executive Agreement as specified in the **BDS**.
- 5.3. Government owned or controlled corporations (GOCCs) may be eligible to participate only if they can establish that they (a) are legally and financially autonomous, (b) operate under commercial law, and (c) are not attached agencies of the Procuring Entity.
- 5.4. (a) 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 Philippine Statistics Authority (PSA) consumer price index. However, contractors under Small A and Small B categories without similar experience on the contract to be bid may be allowed to bid if the cost of such contract is not more than the Allowable Range of Contract Cost (ARCC) of their registration based on the guidelines as prescribed by the PCAB.
- (b) 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 BDS.
- For this purpose, contracts similar to the Project shall be those described in the **BDS**.
- 5.5. The Bidder must submit a computation of its Net Financial Contracting Capacity (NFCC), which must be at least equal to the ABC to be bid, calculated as follows:

NFCC = [(Current assets minus current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract for this Project.

The values of the domestic bidder' s current assets and current liabilities shall be based on the latest Audited Financial Statements (AFS) submitted to the BIR.

For purposes of computing the foreign bidders' NFCC, the value of the current assets and current liabilities shall be based on their audited financial statements prepared in accordance with international financial reporting standards.

6. Bidder's Responsibilities

6.1. The Bidder or its duly authorized representative shall submit a sworn statement in the form prescribed in Section IX. Bidding Forms as required in **ITB** Clause 12.1(b)(iii).

6.2. The Bidder is responsible for the following:

- (a) Having taken steps to carefully examine all of the Bidding Documents;
- (b) Having acknowledged all conditions, local or otherwise, affecting the implementation of the contract;
- (c) Having made an estimate of the facilities available and needed for the contract to be bid, if any;
- (d) Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin/s as provided under **ITB** Clause 10.4.
- (e) Ensuring that it is not "blacklisted" or barred from bidding by the GoP or any of its agencies, offices, corporations, or LGUs, including foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the GPPB;
- (f) Ensuring that 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;
- (g) Authorizing the HoPE or its duly authorized representative/s to verify all the documents submitted;
- (h) Ensuring that the signatory 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, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary's Certificate, whichever is applicable;
- (i) Complying with the disclosure provision under Section 47 of RA 9184 and its IRR in relation to other provisions of RA 3019;
- (j) Complying with existing labor laws and standards, in the case of procurement of services. Moreover, bidder undertakes to:
 - (i) Ensure the entitlement of workers to wages, hours of work, safety and health and other prevailing conditions of work as established by national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable.

In case there is a finding by the Procuring Entity or the DOLE of underpayment or non-payment of workers' wage and wage-related benefits, bidder agrees that the performance security or portion of the

contract amount shall be withheld in favor of the complaining workers pursuant to appropriate provisions of Republic Act No. 9184 without prejudice to the institution of appropriate actions under the Labor Code, as amended, and other social legislations.

- (ii) Comply with occupational safety and health standards and to correct deficiencies, if any.

In case of imminent danger, injury or death of the worker, bidder undertakes to suspend contract implementation pending clearance to proceed from the DOLE Regional Office and to comply with Work Stoppage Order; and

- (iii) Inform the workers of their conditions of work, labor clauses under the contract specifying wages, hours of work and other benefits under prevailing national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable, through posting in two (2) conspicuous places in the establishment's premises; and
- (k) Ensuring that it 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;

Failure to observe any of the above responsibilities shall be at the risk of the Bidder concerned.

- 6.3. The Bidder, by the act of submitting its bid, shall be deemed to have inspected the site, determined the general characteristics of the contract works and the conditions for this Project and examine all instructions, forms, terms, and project requirements in the Bidding Documents.
- 6.4. It shall be the sole responsibility of the prospective bidder to determine and to satisfy itself by such means as it considers necessary or desirable as to all matters pertaining to this Project, including: (a) the location and the nature of the contract, project, or 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.
- 6.5. The Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible bidder out of the data furnished by the procuring entity. However, the Procuring Entity shall ensure that all information in the Bidding Documents, including supplemental/bid bulletins issued are correct and consistent.
- 6.6. Before submitting their bids, the Bidders are deemed to have become familiar with all existing laws, decrees, ordinances, acts and regulations of the Philippines which may affect the contract in any way.
- 6.7. The Bidder shall bear all costs associated with the preparation and submission of his bid, and the Procuring Entity will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

- 6.8. The Bidder should note that the Procuring Entity will accept bids only from those that have paid the applicable fee for the Bidding Documents at the office indicated in the Invitation to Bid.

7. Origin of Goods and Services

There is no restriction on the origin of Goods, or Contracting of Works or Services other than those prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

8. Subcontracts

- 8.1. Unless otherwise specified in the **BDS**, the Bidder may subcontract portions of the Works to an extent as may be approved by the Procuring Entity and stated in the **BDS**. However, subcontracting of any portion shall not relieve the Bidder from any liability or obligation that may arise from the contract for this Project.
- 8.2. Subcontractors must submit the documentary requirements under **ITB** Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by the Procuring Entity to be ineligible, the subcontracting of such portion of the Works shall be disallowed.
- 8.3. The Bidder may identify the subcontractor to whom a portion of the Works will be subcontracted at any stage of the bidding process or during contract implementation. If the Bidder opts to disclose the name of the subcontractor during bid submission, the Bidder shall include the required documents as part of the technical component of its bid.

B. Contents of Bidding Documents

9. Pre-Bid Conference

- 9.1. (a) If so specified in the **BDS**, a pre-bid conference shall be held at the venue and on the date indicated therein, to clarify and address the Bidders' questions on the technical and financial components of this Project.
- (b) The pre-bid conference shall be held at least twelve (12) calendar days before the deadline for the submission of and receipt of bids, but not earlier than seven (7) calendar days from the posting of the Invitation to Bid/Bidding Documents in the PhilGEPS website. If the Procuring Entity determines that, by reason of the method, nature, or complexity of the contract to be bid, or when international participation will be more advantageous to the GoP, a longer period for the preparation of bids is necessary, the pre-bid conference shall be held at least thirty (30) calendar days before the deadline for the submission and receipt of bids, as specified in the **BDS**.
- 9.2. Bidders are encouraged to attend the pre-bid conference to ensure that they fully understand the Procuring Entity's requirements. Non-attendance of the Bidder will in no way prejudice its bid; however, the Bidder is expected to know the changes and/or amendments to the Bidding Documents as recorded in the minutes of the pre-bid conference and the Supplemental/Bid Bulletin. The minutes of the pre-bid conference shall be recorded and prepared not later than five (5) calendar days after the pre-bid conference. The minutes shall be made available to prospective bidders not later than five (5) days upon written request.

- 9.3. Decisions of the BAC amending any provision of the bidding documents shall be issued in writing through a Supplemental/Bid Bulletin at least seven (7) calendar days before the deadline for the submission and receipt of bids.

10. Clarification and Amendment of Bidding Documents

- 10.1. Prospective bidders may request for clarification(s) on and/or interpretation of any part of the Bidding Documents. Such a request must be in writing and submitted to the Procuring Entity at the address indicated in the **BDS** at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.
- 10.2. The BAC shall respond to the said request by issuing a Supplemental/Bid Bulletin, to be made available to all those who have properly secured the Bidding Documents, at least seven (7) calendar days before the deadline for the submission and receipt of Bids.
- 10.3. Supplemental/Bid Bulletins may also be issued upon the Procuring Entity's initiative for purposes of clarifying or modifying any provision of the Bidding Documents not later than seven (7) calendar days before the deadline for the submission and receipt of Bids. Any modification to the Bidding Documents shall be identified as an amendment.
- 10.4. Any Supplemental/Bid Bulletin issued by the BAC shall also be posted in the PhilGEPS and the website of the Procuring Entity concerned, if available, and at any conspicuous place in the premises of the Procuring Entity concerned. It shall be the responsibility of all Bidders who have properly secured the Bidding Documents to inquire and secure Supplemental/Bid Bulletins that may be issued by the BAC. However, Bidders who have submitted bids before the issuance of the Supplemental/Bid Bulletin must be informed and allowed to modify or withdraw their bids in accordance with **ITB 23**.

C. Preparation of Bids

11. Language of Bids

The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered translator in the foreign bidder's country; and 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. The English translation shall govern, for purposes of interpretation of the bid.

12. Documents Comprising the Bid: Eligibility and Technical Components

- 12.1. Unless otherwise indicated in the **BDS**, the first envelope shall contain the following eligibility and technical documents:
- (a) Eligibility Documents –
Class "A" Documents

- (i) PhilGEPS Certificate of Registration and Membership in accordance with Section 8.5.2 of the IRR, except for foreign bidders participating in the procurement by a Philippine Foreign Service Office or Post, which shall submit their eligibility documents under Section 23.1 of the IRR, provided, that the winning bidder shall register with the PhilGEPS in accordance with Section 37.1.4 of the IRR;
- (ii) Statement 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

Statement of the Bidder' s SLCC similar to the contract to be bid, in accordance with ITB Clause 5.4.

The two statements required shall indicate for each contract the following:

- (ii.1) name of the contract;
- (ii.2) date of the contract;
- (ii.3) contract duration;
- (ii.4) owner' s name and address;
- (ii.5) nature of work;
- (ii.6) contractor' s role (whether sole contractor, subcontractor, or partner in a JV) and percentage of participation;
- (ii.7) total contract value at award;
- (ii.8) date of completion or estimated completion time;
- (ii.9) total contract value at completion, if applicable;
- (ii.10) percentages of planned and actual accomplishments, if applicable; and
- (ii.11) value of outstanding works, if applicable.

The statement of the Bidder' s SLCC shall be supported by the Notice of Award and/or Notice to Proceed, Project Owner' s Certificate of Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory. In case of contracts with the private sector, an equivalent document shall be submitted;

- (iii) Unless otherwise provided in the BDS, a valid special PCAB License in case of joint ventures, and registration for the type and cost of the contract for this Project; and
- (iv) NFCC computation in accordance with ITB Clause 5.5.

Class “ B” Documents

(v) If applicable, Joint Venture Agreement (JVA) in accordance with RA 4566.

(b) Technical Documents –

- (i) Bid security in accordance with **ITB** Clause 18. If the Bidder opts to submit the bid security in the form of:
 - (i.1) a bank draft/guarantee or an irrevocable letter of credit issued by a foreign bank, it shall be accompanied by a confirmation from a Universal or Commercial Bank; or
 - (i.2) a surety bond accompanied by a certification coming from the Insurance Commission that the surety or insurance company is authorized to issue such instruments.
- (ii) Project Requirements, which shall include the following:
 - (ii.1) Organizational chart for the contract to be bid;
 - (ii.2) List of contractor’ s 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. These personnel must meet the required minimum years of experience set in the **BDS**; and
 - (ii.3) 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, which must meet the minimum requirements for the contract set in the **BDS**; and
- (iii) Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Section IX. Bidding Forms.

13. Documents Comprising the Bid: Financial Component

- 13.1. Unless otherwise stated in the **BDS**, the financial component of the bid shall contain the following:
 - (a) Financial Bid Form, which includes bid prices and the bill of quantities, in accordance with **ITB** Clauses 15.1 and 15.3; and
 - (b) Any other document related to the financial component of the bid as stated in the **BDS**.
- 13.2. (a) Unless otherwise stated in the **BDS**, all Bids that exceed the ABC shall not be accepted.

- (b) Unless otherwise indicated in the **BDS**, for foreign-funded procurement, a ceiling may be applied to bid prices provided the following conditions are met:
 - (i) Bidding Documents are obtainable free of charge on a freely accessible website. If payment of Bidding Documents is required by the procuring entity, payment could be made upon the submission of bids.
 - (ii) The procuring entity has procedures in place to ensure that the ABC is based on recent estimates made by the engineer or the responsible unit of the procuring entity and that the estimates are based on adequate detailed engineering (in the case of infrastructure projects) and reflect the quality, supervision and risk and inflationary factors, as well as prevailing market prices, associated with the types of works or goods to be procured.
 - (iii) The procuring entity has trained cost estimators on estimating prices and analyzing bid variances. In the case of infrastructure projects, the procuring entity must also have trained quantity surveyors.
 - (iv) The procuring entity has established a system to monitor and report bid prices relative to ABC and engineer' s/procuring entity' s estimate.
 - (v) The procuring entity has established a monitoring and evaluation system for contract implementation to provide a feedback on actual total costs of goods and works.

14. Alternative Bids

- 14.1. Alternative Bids shall be rejected. For this purpose, alternative bid is an offer made by a Bidder in addition or as a substitute to its original bid which may be included as part of its original bid or submitted separately therewith for purposes of bidding. A bid with options is considered an alternative bid regardless of whether said bid proposal is contained in a single envelope or submitted in two (2) or more separate bid envelopes.
- 14.2. 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.
- 14.3. Each Bidder shall submit only one Bid, either individually or as a partner in a JV. A Bidder who submits or participates in more than one bid (other than as a subcontractor if a subcontractor is permitted to participate in more than one bid) will cause all the proposals with the Bidder' s participation to be disqualified. This shall be without prejudice to any applicable criminal, civil and administrative penalties that may be imposed upon the persons and entities concerned.

15. Bid Prices

- 15.1. The contract shall be for the whole Works, as described in **ITB** Clause 1.1 based on the priced Bill of Quantities submitted by the Bidder.
- 15.2. The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Bids not addressing or providing all of the required items in the

Bidding Documents including, where applicable, Bill of Quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Government, except those required by law or regulations to be provided for.

- 15.3. All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, prior to the deadline for submission of bids, shall be included in the rates, prices, and total bid price submitted by the Bidder.
- 15.4. All bid prices for the given scope of work in the contract as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as specified in GCC Clause 48. Upon the recommendation of the Procuring Entity, price escalation may be allowed in extraordinary circumstances as may be determined by the National Economic and Development Authority in accordance with the Civil Code of the Philippines, and upon approval by the GPPB. Furthermore, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GoP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

16. Bid Currencies

- 16.1. All bid prices shall be quoted in Philippine Pesos unless otherwise provided in the BDS. However, for purposes of bid evaluation, bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate prevailing on the day of the Bid Opening.
- 16.2. If so allowed in accordance with **ITB** Clause 16.1 the Procuring Entity for purposes of bid evaluation and comparing the bid prices will convert the amounts in various currencies in which the bid price is expressed to Philippine Pesos at the exchange rate as published in the *Bangko Sentral ng Pilipinas* (BSP) reference rate bulletin on the day of the bid opening.
- 16.3. Unless otherwise specified in the **BDS**, payment of the contract price shall be made in Philippine Pesos.

17. Bid Validity

- 17.1. Bids shall remain valid for the period specified in the **BDS** which shall not exceed one hundred twenty (120) calendar days from the date of the opening of bids.
- 17.2. In exceptional circumstances, prior to the expiration of the bid validity period, the Procuring Entity may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. The bid security described in **ITB** Clause 18 should also be extended corresponding to the extension of the bid validity period at the least. A Bidder may refuse the request without forfeiting its bid security, but his bid shall no longer be considered for further evaluation and award. A Bidder granting the request shall not be required or permitted to modify its bid.

18. Bid Security

- 18.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in an amount stated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the following schedule:

Form of Bid Security	Amount of Bid Security (Not less than the Percentage of the ABC)
<p>(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.</p> <p><i>For biddings conducted by LGUs, the cashier's/manager's check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i></p>	Two percent (2%)
<p>(b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.</p> <p><i>For biddings conducted by LGUs, the Bank Draft/ Guarantee, or irrevocable letter of credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i></p>	
<p>(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security; and/or</p>	Five percent (5%)

The Bid Securing Declaration mentioned above is an undertaking which states, among others, that the Bidder shall enter into contract with the procuring entity and furnish the performance security required under ITB Clause 32.2, within ten (10) calendar days from receipt of the Notice of Award, and commits to pay the corresponding amount as fine, and be suspended for a period of time from being qualified to participate in any government procurement activity in the event it violates any of the conditions stated therein as provided in the guidelines issued by the GPPB.

- 18.2. The bid security should be valid for the period specified in the **BDS**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

- 18.3. No bid securities shall be returned to Bidders after the opening of bids and before contract signing, except to those that failed or declared as post-disqualified, upon submission of a written waiver of their right to file a request for reconsideration and/or protest, or lapse of the reglementary period without having filed a request for reconsideration or protest. Without prejudice on its forfeiture, Bid Securities shall be returned only after the Bidder with the Lowest Calculated Responsive Bid (LCRB) has signed the contract and furnished the Performance Security, but in no case later than the expiration of the Bid Security validity period indicated in **ITB 18.2**.
- 18.4. Upon signing and execution of the contract, pursuant to **ITB 31**, and the posting of the performance security, pursuant to **ITB Clause 32**, the successful Bidder's Bid Security will be discharged, but in no case later than the Bid Security validity period as indicated in **ITB 18.2**.
- 18.5. The bid security may be forfeited:
- (a) if a Bidder:
 - (i) withdraws its bid during the period of bid validity specified in **ITB Clause 17**;
 - (ii) does not accept the correction of errors pursuant to **ITB Clause 27.3 (b)**;
 - (iii) has a finding against the veracity of the required documents submitted in accordance with **ITB Clause 28.2**;
 - (iv) submission of eligibility requirements containing false information or falsified documents;
 - (v) submission of bids that contain false information or falsified documents, or the concealment of such information in the bids in order to influence the outcome of eligibility screening or any other stage of the public bidding;
 - (vi) allowing the use of one's name, or using the name of another for purposes of public bidding;
 - (vii) withdrawal of a bid, or refusal to accept an award, or enter into contract with the Government without justifiable cause, after the Bidder had been adjudged as having submitted the LCRB;
 - (viii) refusal or failure to post the required performance security within the prescribed time;
 - (ix) refusal to clarify or validate in writing its bid during post-qualification within a period of seven (7) calendar days from receipt of the request for clarification;
 - (x) any documented attempt by a Bidder to unduly influence the outcome of the bidding in his favor;
 - (xi) failure of the potential joint venture partners to enter into the joint venture after the bid is declared successful; or

- (xii) all other acts that tend to defeat the purpose of the competitive bidding, such as habitually withdrawing from bidding, submitting late Bids or patently insufficient bid, for at least three (3) times within a year, except for valid reasons.
- (b) if the successful Bidder:
 - (i) fails to sign the contract in accordance with **ITB** Clause 31;
 - (ii) fails to furnish performance security in accordance with **ITB** Clause 32.

19. Format and Signing of Bids

- 19.1 Bidders shall submit their bids through their duly authorized representative using the appropriate forms provided in Section IX. Bidding Forms on or before the deadline specified in the **ITB** Clause 21 in two (2) separate sealed bid envelopes, and which shall be submitted simultaneously. The first shall contain the technical component of the bid, including the eligibility requirements under **ITB** Clause 12.1, and the second shall contain the financial component of the bid. This shall also be observed for each lot in the case of lot procurement.
- 19.2 Forms as mentioned in **ITB** Clause 19.1 must be completed without any alterations to their format, and no substitute form shall be accepted. All blank spaces shall be filled in with the information requested.
- 19.3 The Bidder shall prepare and submit an original of the first and second envelopes as described in **ITB** Clauses 12 and 13. In addition, the Bidder shall submit copies of the first and second envelopes. In the event of any discrepancy between the original and the copies, the original shall prevail.
- 19.4 Each and every page of the Bid Form, including the Bill of Quantities, under Section IX hereof, shall be signed by the duly authorized representative/s of the Bidder. Failure to do so shall be a ground for the rejection of the bid.
- 19.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the duly authorized representative/s of the Bidder.

20. Sealing and Marking of Bids

- 20.1 Bidders shall enclose their original eligibility and technical documents described in **ITB** Clause 12, in one sealed envelope marked “ORIGINAL - TECHNICAL COMPONENT,” and the original of their financial component in another sealed envelope marked “ORIGINAL - FINANCIAL COMPONENT,” sealing them all in an outer envelope marked “ORIGINAL BID.”
- 20.2 Each copy of the first and second envelopes shall be similarly sealed duly marking the inner envelopes as “COPY NO. ____ - TECHNICAL COMPONENT” and “COPY NO. ____ - FINANCIAL COMPONENT” and the outer envelope as “COPY NO. ____,” respectively. These envelopes containing the original and the copies shall then be enclosed in one single envelope.
- 20.3 The original and the number of copies of the bid as indicated in the **BDS** shall be typed or written in ink and shall be signed by the Bidder or its duly authorized representative/s.

20.4. All envelopes shall:

- (a) contain the name of the contract to be bid in capital letters;
- (b) bear the name and address of the Bidder in capital letters;
- (c) be addressed to the Procuring Entity' s BAC in accordance with **ITB** Clause 20.1;
- (d) bear the specific identification of this bidding process indicated in the **ITB** Clause 1.2; and
- (e) bear a warning “ DO NOT OPEN BEFORE...” the date and time for the opening of bids, in accordance with **ITB** Clause 21.

20.5. Bid envelopes that are not properly sealed and marked, as required in the bidding documents, shall not be rejected, but the Bidder or its duly authorized representative shall acknowledge such condition of the bid as submitted. The BAC or the Procuring Entity shall assume no responsibility for the misplacement of the contents of the improperly sealed or marked bid, or for its premature opening.

D. Submission and Opening of Bids

21. Deadline for Submission of Bids

Bids must be received by the Procuring Entity' s BAC at the address and on or before the date and time indicated in the **BDS**.

22. Late Bids

Any bid submitted after the deadline for submission and receipt of bids prescribed by the Procuring Entity, pursuant to **ITB** Clause 21, shall be declared “ Late” and shall not be accepted by the Procuring Entity. The BAC shall record in the minutes of Bid Submission and Opening, the Bidder' s name, its representative and the time the late bid was submitted.

23. Modification and Withdrawal of Bids

23.1. The Bidder may modify its bid after it has been submitted; provided that the modification is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Bidder shall not be allowed to retrieve its original bid, but shall be allowed to submit another bid equally sealed and properly identified in accordance with Clause 20, linked to its original bid marked as “ TECHNICAL MODIFICATION” or “ FINANCIAL MODIFICATION” and stamped “ received” by the BAC. Bid modifications received after the applicable deadline shall not be considered and shall be returned to the Bidder unopened.

23.2. A Bidder may, through a Letter of Withdrawal, withdraw its bid after it has been submitted, for valid and justifiable reason; provided that the Letter of Withdrawal is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Letter of Withdrawal must be executed by the authorized representative of the Bidder identified in the Omnibus Sworn Statement, a copy of which should be attached to the letter.

23.3. Bids requested to be withdrawn in accordance with **ITB** Clause 23.1 shall be returned unopened to the Bidders. A Bidder, who has acquired the bidding documents may

also express its intention not to participate in the bidding through a letter which should reach and be stamped by the BAC before the deadline for submission and receipt of bids. A Bidder that withdraws its bid shall not be permitted to submit another bid, directly or indirectly, for the same contract.

- 23.4. No bid may be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Financial Bid Form. Withdrawal of a bid during this interval shall result in the forfeiture of the Bidder's bid security, pursuant to **ITB** Clause 18.5, and the imposition of administrative, civil, and criminal sanctions as prescribed by RA 9184 and its IRR.

24. Opening and Preliminary Examination of Bids

- 24.1. The BAC shall open the Bids in public, immediately after the deadline for the submission and receipt of bids in public, as specified in the BDS. In case the Bids cannot be opened as scheduled due to justifiable reasons, the BAC shall take custody of the Bids submitted and reschedule the opening of Bids on the next working day or at the soonest possible time through the issuance of a Notice of Postponement to be posted in the PhilGEPS website and the website of the Procuring Entity concerned.
- 24.2. Unless otherwise specified in the BDS, the BAC shall open the first bid envelopes and determine each Bidder's compliance with the documents prescribed in ITB Clause 12, using a non-discretionary "pass/fail" criterion. If a Bidder submits the required document, it shall be rated "passed" for that particular requirement. In this regard, bids that fail to include any requirement or are incomplete or patently insufficient shall be considered as "failed". Otherwise, the BAC shall rate the said first bid envelope as "passed".
- 24.3. Unless otherwise specified in the BDS, immediately after determining compliance with the requirements in the first envelope, the BAC shall forthwith open the second bid envelope of each remaining eligible Bidder whose first bid envelope was rated "passed." The second envelope of each complying Bidder shall be opened within the same day. In case one or more of the requirements in the second envelope of a particular bid is missing, incomplete or patently insufficient, and/or if the submitted total bid price exceeds the ABC unless otherwise provided in **ITB** Clause 13.2, the BAC shall rate the bid concerned as "failed." Only bids that are determined to contain all the bid requirements for both components shall be rated "passed" and shall immediately be considered for evaluation and comparison.
- 24.4. Letters of Withdrawal shall be read out and recorded during bid opening, and the envelope containing the corresponding withdrawn bid shall be returned to the Bidder unopened.
- 24.5. All members of the BAC who are present during bid opening shall initial every page of the original copies of all bids received and opened.
- 24.6. In the case of an eligible foreign bidder as described in **ITB**, the following Class "A" Documents may be substituted with the appropriate equivalent documents, if any, issued by the country of the foreign bidder concerned, which shall likewise be uploaded and maintained in the PhilGEPS in accordance with Section 8.5.2 of the IRR.:

- a) Registration certificate from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or CDA for cooperatives;
 - b) Mayor' s/Business permit issued by the local government where the principal place of business of the Bidder is located; and
 - c) Audited Financial Statements showing, among others, the prospective Bidder' s total and current assets and liabilities stamped "received" by the Bureau of Internal Revenue or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two years from the date of bid submission.
- 24.7. Each partner of a joint venture agreement shall likewise submit the document required in **ITB** Clause 12.1(a)(i). Submission of documents required under **ITB** Clauses 12.1(a)(ii) to 12.1(a)(iv) by any of the joint venture partners constitutes compliance.
- 24.8. The Procuring Entity shall prepare the minutes of the proceedings of the bid opening that shall include, as a minimum: (a) names of Bidders, their bid price (per lot, if applicable, and/or including discount, if any), bid security, findings of preliminary examination, and whether there is a withdrawal or modification; and (b) attendance sheet. The BAC members shall sign the abstract of bids as read.
- 24.8. The Bidders or their duly authorized representatives may attend the opening of bids. The BAC shall ensure the integrity, security, and confidentiality of all submitted bids. The Abstract of Bids as read and the minutes of the Bid Opening shall be made available to the public upon written request and payment of a specified fee to recover cost of materials.
- 24.9 To ensure transparency and accurate representation of the bid submission, the BAC Secretariat shall notify in writing all Bidders whose bids it has received through its PhilGEPS-registered physical address or official e-mail address. The notice shall be issued within seven (7) calendar days from the date of the bid opening.

E. Evaluation and Comparison of Bids

25. Process to be Confidential

- 25.1. Members of the BAC, including its staff and personnel, as well as its Secretariat and TWG, are prohibited from making or accepting any kind of communication with any Bidder regarding the evaluation of their bids until the issuance of the Notice of Award, unless otherwise allowed in the case of **ITB** Clause 26.
- 25.2. Any effort by a Bidder to influence the Procuring Entity in the Procuring Entity' s decision in respect of bid evaluation, bid comparison or contract award will result in the rejection of the Bidder' s bid.

26. Clarification of Bids

To assist in the evaluation, comparison and post-qualification of the bids, the Procuring Entity may ask in writing any Bidder for a clarification of its bid. All responses to requests for clarification shall be in writing. Any clarification submitted by a Bidder in respect to its bid and that is not in response to a request by the Procuring Entity shall not be considered

27. Detailed Evaluation and Comparison of Bids

- 27.1. The Procuring Entity will undertake the detailed evaluation and comparison of Bids which have passed the opening and preliminary examination of Bids, pursuant to **ITB** Clause 24, in order to determine the Lowest Calculated Bid.
- 27.2. The Lowest Calculated Bid shall be determined in two steps:
- (a) The detailed evaluation of the financial component of the bids, to establish the correct calculated prices of the bids; and
 - (b) The ranking of the total bid prices as so calculated from the lowest to highest. The bid with the lowest price shall be identified as the Lowest Calculated Bid.
- 27.3. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all bids rated “ passed,” using non-discretionary “ pass/fail” criterion. The BAC shall consider the following in the evaluation of bids:
- (a) Completeness of the bid. Unless the **BDS** allows partial bids, bids not addressing or providing all of the required items in the Schedule of Requirements including, where applicable, bill of quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Procuring Entity, except those required by law or regulations to be provided for; and
 - (b) Arithmetical corrections. Consider computational errors and omissions to enable proper comparison of all eligible bids. It may also consider bid modifications. Any adjustment shall be calculated in monetary terms to determine the calculated prices.
- 27.4. Based on the detailed evaluation of bids, those that comply with the above-mentioned requirements shall be ranked in the ascending order of their total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, to identify the Lowest Calculated Bid. Total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, which exceed the ABC shall not be considered, unless otherwise indicated in the **BDS**.
- 27.5. The Procuring Entity’ s evaluation of bids shall be based on the bid price quoted in the Bid Form, which includes the Bill of Quantities.
- 27.6. Bids shall be evaluated on an equal footing to ensure fair competition. For this purpose, all Bidders shall be required to include in their bids the cost of all taxes, such as, but not limited to, value added tax (VAT), income tax, local taxes, and other fiscal levies and duties which shall be itemized in the bid form and reflected in the detailed estimates. Such bids, including said taxes, shall be the basis for bid evaluation and comparison.
- 27.7. If so indicated pursuant to **ITB** Clause 1.2. Bids are being invited for individual lots or for any combination thereof, provided that all Bids and combinations of Bids 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 prices quoted shall correspond to all of the requirements specified for each lot. Bid Security as required by **ITB** Clause 18 shall be submitted for each contract (lot) separately. The basis for evaluation of lots is specified in **BDS** Clause 27.3.

28. Post Qualification

28.1. The BAC shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the Lowest Calculated Bid complies with and is responsive to all the requirements and conditions specified in **ITB** Clauses 5, 12, and 13.

28.2. 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**.

Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the Bidder for award. Provided in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the bid security in accordance with Section 69 of the IRR of RA 9184.

28.3. The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted pursuant to **ITB** Clauses 12 and 13, as well as other information as the Procuring Entity deems necessary and appropriate, using a non-discretionary "pass/fail" criterion, which shall be completed within a period of twelve (12) calendar days.

28.4. If the BAC determines that the Bidder with the Lowest Calculated Bid passes all the criteria for post-qualification, it shall declare the said bid as the LCRB, and recommend to the HoPE the award of contract to the said Bidder at its submitted price or its calculated bid price, whichever is lower, subject to **ITB** Clause 30.3.

28.5. A negative determination shall result in rejection of the Bidder's bid, in which event the Procuring Entity shall proceed to the next Lowest Calculated Bid, with a fresh period to make a similar determination of that Bidder's capabilities to perform satisfactorily. If the second Bidder, however, fails the post qualification, the procedure for post qualification shall be repeated for the Bidder with the next Lowest Calculated Bid, and so on until the LCRB is determined for recommendation of contract award.

28.6. Within a period not exceeding fifteen (15) calendar days from the determination by the BAC of the LCRB and the recommendation to award the contract, the HoPE or his duly authorized representative shall approve or disapprove the said recommendation.

28.7. In the event of disapproval, which shall be based on valid, reasonable, and justifiable grounds as provided for under Section 41 of the IRR of RA 9184, the HoPE shall notify the BAC and the Bidder in writing of such decision and the grounds for it. When applicable, the BAC shall conduct a post-qualification of the Bidder with the next Lowest Calculated Bid. A request for reconsideration may be filed by the Bidder with the HoPE in accordance with Section 37.1.3 of the IRR of RA 9184.

29. Reservation Clause

- 29.1. Notwithstanding the eligibility or post-qualification of a Bidder, the Procuring Entity concerned reserves the right to review its qualifications at any stage of the procurement process if it has reasonable grounds to believe that a misrepresentation has been made by the said Bidder, or that there has been a change in the Bidder's capability to undertake the project from the time it submitted its eligibility requirements. Should such review uncover any misrepresentation made in the eligibility and bidding requirements, statements or documents, or any changes in the situation of the Bidder which will affect its capability to undertake the project so that it fails the preset eligibility or bid evaluation criteria, the Procuring Entity shall consider the said Bidder as ineligible and shall disqualify it from submitting a bid or from obtaining an award or contract.
- 29.2. Based on the following grounds, the Procuring Entity reserves the right to reject any and all Bids, declare a Failure of Bidding at any time prior to the contract award, or not to award the contract, without thereby incurring any liability, and make no assurance that a contract shall be entered into as a result of the bidding:
- (a) If there is *prima facie* evidence of collusion between appropriate public officers or employees of the Procuring Entity, or between the BAC and any of the Bidders, or if the collusion is between or among the Bidders themselves, or between a Bidder and a third party, including any act which restricts, suppresses or nullifies or tends to restrict, suppress or nullify competition;
 - (b) If the Procuring Entity's BAC is found to have failed in following the prescribed bidding procedures; or
 - (c) For any justifiable and reasonable ground where the award of the contract will not redound to the benefit of the GOP as follows:
 - (i) If the physical and economic conditions have significantly changed so as to render the project no longer economically, financially or technically feasible as determined by the HoPE;
 - (ii) If the project is no longer necessary as determined by the HoPE; and
 - (iii) If the source of funds for the project has been withheld or reduced through no fault of the Procuring Entity.
- 29.3. In addition, the Procuring Entity may likewise declare a failure of bidding when:
- (a) No bids are received;
 - (b) All prospective Bidders are declared ineligible;
 - (c) All bids fail to comply with all the bid requirements, fail post-qualification; or
 - (d) The Bidder with the LCRB refuses, without justifiable cause, to accept the award of contract, and no award is made in accordance with Section 40 of the IRR of RA 9184.

F. Award of Contract

30. Contract Award

- 30.1. Subject to **ITB** Clause 28, the HoPE or its duly authorized representative shall award the contract to the Bidder whose bid has been determined to be the LCRB.
- 30.2. Prior to the expiration of the period of bid validity, the Procuring Entity shall notify the successful Bidder in writing that its bid has been accepted, through a Notice of Award duly received by the Bidder or its representative personally or by registered mail or electronically, receipt of which must be confirmed in writing within two (2) days by the Bidder with the LCRB and submitted personally or sent by registered mail or electronically to the Procuring Entity.
- 30.3. Notwithstanding the issuance of the Notice of Award, award of contract shall be subject to the following conditions:
 - (a) Submission of the following documents within ten (10) calendar days from receipt of the Notice of Award:
 - (i) In the case of procurement by a Philippine Foreign Service Office or Post, the PhilGEPS Registration Number of the winning foreign Bidder; or
 - (ii) Valid PCAB license and registration for the type and cost of the contract to be bid for foreign bidders when the Treaty or International or Executive Agreement expressly allows submission of the PCAB license and registration for the type and cost of the contract to be bid as a pre-condition to the Award;
 - (b) Posting of the performance security in accordance with **ITB** Clause 32;
 - (c) Signing of the contract as provided in **ITB** Clause 31; and
 - (d) Approval by higher authority, if required, as provided in Section 37.3 of the IRR of RA 9184.

31. Signing of the Contract

- 31.1. At the same time as the Procuring Entity notifies the successful Bidder that its bid has been accepted, the Procuring Entity shall send the Contract Form to the Bidder, which Contract has been provided in the Bidding Documents, incorporating therein all agreements between the parties.
- 31.2. Within ten (10) calendar days from receipt of the Notice of Award, the successful Bidder shall post the required performance security, sign and date the contract and return it to the Procuring Entity.
- 31.3. The Procuring Entity shall enter into contract with the successful Bidder within the same ten (10) calendar day period provided that all the documentary requirements are complied with.
- 31.4. The following documents shall form part of the contract:

- (a) Contract Agreement;
- (b) Bidding Documents;
- (c) Winning Bidder' s bid, including the Technical and Financial Proposals, and all other documents/statements 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;
- (d) Performance Security;
- (e) Notice of Award of Contract; and
- (f) Other contract documents that may be required by existing laws and/or specified in the **BDS**.

32. Performance Security

- 32.1. To guarantee the faithful performance by the winning Bidder of its obligations under the contract, it shall post a performance security within a maximum period of ten (10) calendar days from the receipt of the Notice of Award from the Procuring Entity and in no case later than the signing of the contract.
- 32.2. The Performance Security shall be denominated in Philippine Pesos and posted in favor of the Procuring Entity in an amount not less than the percentage of the total contract price in accordance with the following schedule:

Form of Performance Security	Amount of Performance Security (Not less than the Percentage of the Total Contract Price)
<p>(a) Cash or cashier' s/manager' s check issued by a Universal or Commercial Bank.</p> <p><i>For biddings conducted by the LGUs, the Cashier' s/Manager' s Check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i></p>	Ten percent (10%)
<p>(b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.</p> <p><i>For biddings conducted by the LGUs, Bank Draft/Guarantee, or Irrevocable Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i></p>	

(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Thirty percent (30%)
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32.3. Failure of the successful Bidder to comply with the above-mentioned requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security, in which event the Procuring Entity shall have a fresh period to initiate and complete the post qualification of the second Lowest Calculated Bid. The procedure shall be repeated until LCRB is identified and selected for recommendation of contract award. However if no Bidder passed post-qualification, the BAC shall declare the bidding a failure and conduct a re-bidding with re-advertisement, if necessary.

33. Notice to Proceed

Within seven (7) calendar days from the date of approval of the Contract by the appropriate government approving authority, the Procuring Entity shall issue the Notice to Proceed (NTP) together with a copy or copies of the approved contract to the successful Bidder. All notices called for by the terms of the contract shall be effective only at the time of receipt thereof by the successful Bidder.

34. Protest Mechanism

Decision of the procuring entity at any stage of the procurement process may be questioned in accordance with Sections 55 of the IRR of RA 9184.

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause	
1.1	<p>The Procuring Entity is <i>Philippine Science High School-Bicol Region Campus</i></p> <p>The name of the Contract is <i>Completion of Academic Building III</i></p> <p>The identification number of the Contract is</p>
2	<p>The Funding Source is:</p> <p>The Government of the Philippines (GoP) through <i>General Appropriations Act (GAA) 2020</i> in the amount of EIGHT MILLION PESOS (Php 8,000,000.00) only</p> <p>The name of the Project is <i>COMPLETION OF ACADEMIC BUILDING III</i></p>
3.1	No further instructions.
5.1	No further instructions.
5.2	Bidding is restricted to eligible bidders as defined in ITB Clause 5.1.
5.4 (a)	No further instructions.
5.4 (b)	Similar contracts shall refer to contracts for academic building/school building projects with at least 50% of the ABC.
8.1	"Subcontracting is not allowed.
8.2	"Not applicable."
9.1	The Procuring Entity will hold a pre-bid conference for this Project on <i>July 20, 2020 @ 1:30 PM at Board Room, Administration Building, Philippine Science High School – Bicol Region Campus.</i>
10.1	<p>The Procuring Entity' s address is:</p> <p>Philippine Science High School-Bicol Region Campus Tagongtong, Goa, Camarines Sur Telefax: (054) 871-2280 Cell phone 09175801318/09175061316 Email Address: <i>bac@brc.pshs.edu.ph</i></p> <p>Contact Person: SEVEDEO J. MALATE BAC Chairperson</p>
10.4	No further instructions.

12.1	No further instructions.																					
12.1 (a)(iii)	No further instructions.																					
12.1(b)(ii.2)	<p>The minimum work experience requirements for key personnel are the following:</p> <table><tr><td><u>Key Personnel</u></td><td><u>General Experience</u></td><td><u>Relevant Experience</u></td></tr><tr><td colspan="3"><i>Construction Stage</i></td></tr><tr><td>a. Civil Engineer</td><td rowspan="3">}</td><td rowspan="3">at least 5 years experience</td></tr><tr><td>b. Electrical Engineer</td></tr><tr><td>c. Mechanical Engineer</td></tr><tr><td>d. Materials Engineer</td><td rowspan="2">}</td><td rowspan="2">at least 3 years experience</td></tr><tr><td>c. Foreman</td></tr><tr><td colspan="3">d. Safety Officer (accredited safety practitioner by the Department of Labor and Employment (DOLE) and has undergone the prescribed 40 hour Construction Safety and Health Training (COSH)</td></tr><tr><td colspan="3"><p><i>The above key personnel listed are required. The CONTRACTOR may, as needed and at its own expense, add additional professionals and/or support personnel for the optimal performance of all Construction Services, for the PROJECT. Prospective bidders shall attach each individual' s resume and PRC license of the (professional) staff, proof of qualifications, and related documents as necessary.</i></p></td></tr></table>	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>	<i>Construction Stage</i>			a. Civil Engineer	}	at least 5 years experience	b. Electrical Engineer	c. Mechanical Engineer	d. Materials Engineer	}	at least 3 years experience	c. Foreman	d. Safety Officer (accredited safety practitioner by the Department of Labor and Employment (DOLE) and has undergone the prescribed 40 hour Construction Safety and Health Training (COSH)			<p><i>The above key personnel listed are required. The CONTRACTOR may, as needed and at its own expense, add additional professionals and/or support personnel for the optimal performance of all Construction Services, for the PROJECT. Prospective bidders shall attach each individual' s resume and PRC license of the (professional) staff, proof of qualifications, and related documents as necessary.</i></p>		
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	<p>The minimum major equipment requirements are:</p> <table><tr><td>Equipment</td><td>Capacity</td><td>Number of Units</td></tr><tr><td>Delivery truck.</td><td></td><td>1</td></tr><tr><td>Welding machine</td><td></td><td>1</td></tr><tr><td>Cutting Outfit</td><td></td><td>1</td></tr><tr><td>Electric Drill</td><td></td><td>1</td></tr><tr><td>Electric Grinder</td><td></td><td>1</td></tr></table>	Equipment	Capacity	Number of Units	Delivery truck.		1	Welding machine		1	Cutting Outfit		1	Electric Drill		1	Electric Grinder		1			
Equipment	Capacity	Number of Units																				
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Cutting Outfit		1																				
Electric Drill		1																				
Electric Grinder		1																				
13.1	“ No additional Requirements”																					
13.1(b)	<p>This shall include all of the following documents:</p> <p>1) Bid prices in the Bill of Quantities;</p> <p>2) Detailed estimates, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up</p>																					

	<p>with the Bid; and</p> <p>3) Cash flow by quarter or payment schedule.</p>
13.2	The ABC is FIVE MILLION EIGHT HUNDRED FIFTY-SIX THOUSAND FIVE HUNDRED PESOS (Php 5,856,500.00). Any bid with a financial component exceeding this amount shall not be accepted.
14.2	“No further instructions.”
15.4	No further instruction.
16.1	The bid prices shall be quoted in Philippine Pesos.
16.3	No further instructions.
17.1	Bids will be valid until <i>120 calendar days, December 1, 2020</i>
18.1	<p>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:</p> <ol style="list-style-type: none"> 1. The amount of not less than P 117,130.00 (2% of ABC), if bid security is in cash, cashier’ s/manager’ s check, bank draft/guarantee or irrevocable letter of credit; 2. The amount of not less <i>than P 292,825.00 (/ 5% of ABC)</i>, if bid security is in Surety Bond.
18.2	The bid security shall be valid until <i>120 calendar days, December 1, 2020.</i>
20.3	Each Bidder shall submit [1] original and [3] copies of the first and second components of its bid.
21	<p>The address for submission of bids is</p> <p style="text-align: center;">Philippine Science High School – Bicol Region Campus Tagongtong, Goa, Camarines Sur</p> <p>The deadline for submission of bids is <i>August 3, 2020 at 1:30 in the afternoon.</i></p>
24.1	<p>The place of bid opening is</p> <p style="text-align: center;">Philippine Science High School – Bicol Region Campus Tagongtong, Goa, Camarines Sur</p> <p>The date and time of bid opening is <i>August 3, 2020 at 1:35 in the morning.</i></p>
24.2	No further instructions.
24.3	No further instructions.
27.3	Partial bid is not allowed. 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.
27.4	No further instructions.
28.2	<i>Valid PCAB License for Small B-License Category C & D, General Engineering</i>
31.4 (f)	List of additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the Department of Labor and Employment, and PERT/CPM or other acceptable tools of project scheduling.

Section IV. General Conditions of Contract

1. Definitions

For purposes of this Clause, boldface type is used to identify defined terms.

- 1.1. The **Arbiter** is the person appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in **GCC** Clause 21.
- 1.2. **Bill of Quantities** refers to a list of the specific items of the Work and their corresponding unit prices, lump sums, and/or provisional sums.
- 1.3. The **Completion Date** is the date of completion of the Works as certified by the Procuring Entity's Representative, in accordance with **GCC** Clause 49.
- 1.4. The **Contract** is the contract between the Procuring Entity and the Contractor to execute, complete, and maintain the Works.
- 1.5. The **Contract Effectivity Date** is the date of signing of the Contract. However, the contractor shall commence execution of the Works on the Start Date as defined in **GCC** Clause 1.28.
- 1.6. The **Contract Price** is the price stated in the Notice of Award and thereafter to be paid by the Procuring Entity to the Contractor for the execution of the Works in accordance with this Contract
- 1.7. **Contract Time Extension** is the allowable period for the Contractor to complete the Works in addition to the original Completion Date stated in this Contract.
- 1.8. The **Contractor** is the juridical entity whose proposal has been accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded.
- 1.9. The **Contractor's Bid** is the signed offer or proposal submitted by the Contractor to the Procuring Entity in response to the Bidding Documents.
- 1.10. **Days** are calendar days; months are calendar months.
- 1.11. **Dayworks** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
- 1.12. A **Defect** is any part of the Works not completed in accordance with the Contract.
- 1.13. The **Defects Liability Certificate** is the certificate issued by Procuring Entity's Representative upon correction of defects by the Contractor.
- 1.14. The **Defects Liability Period** is the one year period between contract completion and final acceptance within which the Contractor assumes the responsibility to undertake the repair of any damage to the Works at his own expense.

- 1.15 **Drawings** are graphical presentations of the Works. They include all supplementary details, shop drawings, calculations, and other information provided or approved for the execution of this Contract.
- 1.16 **Equipment** refers to all facilities, supplies, appliances, materials or things required for the execution and completion of the Work provided by the Contractor and which shall not form or are not intended to form part of the Permanent Works.
- 1.17 The **Intended Completion Date** refers to the date specified in the **SCC** when the Contractor is expected to have completed the Works. The Intended Completion Date may be revised only by the Procuring Entity's Representative by issuing an extension of time or an acceleration order.
- 1.18 **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- 1.19 The **Notice to Proceed** is a written notice issued by the Procuring Entity or the Procuring Entity's Representative to the Contractor requiring the latter to begin the commencement of the work not later than a specified or determinable date.
- 1.20 **Permanent Works** are all permanent structures and all other project features and facilities required to be constructed and completed in accordance with this Contract which shall be delivered to the Procuring Entity and which shall remain at the Site after the removal of all Temporary Works.
- 1.21 **Plant** refers to the machinery, apparatus, and the like intended to form an integral part of the Permanent Works.
- 1.22 The **Procuring Entity** is the party who employs the Contractor to carry out the Works stated in the **SCC**.
- 1.23 The **Procuring Entity's Representative** refers to the Head of the Procuring Entity or his duly authorized representative, identified in the **SCC**, who shall be responsible for supervising the execution of the Works and administering this Contract.
- 1.24 The **Site** is the place provided by the Procuring Entity where the Works shall be executed and any other place or places which may be designated in the **SCC**, or notified to the Contractor by the Procuring Entity's Representative as forming part of the Site.
- 1.25 **Site Investigation Reports** are those that were included in the Bidding Documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- 1.26 **Slippage** is a delay in work execution occurring when actual accomplishment falls below the target as measured by the difference between the scheduled and actual accomplishment of the Work by the Contractor as established from the work schedule. This is actually described as a percentage of the whole Works.
- 1.27 **Specifications** means the description of Works to be done and the qualities of materials to be used, the equipment to be installed and the mode of construction.
- 1.28 The **Start Date**, as specified in the **SCC**, is the date when the Contractor is obliged to commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

- 1.29 A **Subcontractor** is any person or organization to whom a part of the Works has been subcontracted by the Contractor, as allowed by the Procuring Entity, but not any assignee of such person.
- 1.30 **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Permanent Works.
- 1.31 **Work(s)** refer to the Permanent Works and Temporary Works to be executed by the Contractor in accordance with this Contract, including (i) the furnishing of all labor, materials, equipment and others incidental, necessary or convenient to the complete execution of the Works; (ii) the passing of any tests before acceptance by the Procuring Entity's Representative; (iii) and the carrying out of all duties and obligations of the Contractor imposed by this Contract as described in the **SCC**.

2. Interpretation

- 2.1. In interpreting the Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of this Contract unless specifically defined. The Procuring Entity's Representative will provide instructions clarifying queries about the Conditions of Contract.
- 2.2. If sectional completion is specified in the **SCC**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3. The documents forming this Contract shall be interpreted in the following order of priority:
- a) Contract Agreement;
 - b) Bid Data Sheet;
 - c) Instructions to Bidders;
 - d) Addenda to the Bidding Documents;
 - e) Special Conditions of Contract;
 - f) General Conditions of Contract;
 - g) Specifications;
 - h) Bill of Quantities; and
 - i) Drawings.

3. Governing Language and Law

- 3.1. This Contract has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. All correspondence and other documents pertaining to this Contract which are exchanged by the parties shall be written in English.

- 3.2. This Contract shall be interpreted in accordance with the laws of the Republic of the Philippines.

4. Communications

Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is received by the concerned party.

5. Possession of Site

- 5.1. On the date specified in the **SCC**, the Procuring Entity shall grant the Contractor possession of so much of the Site as may be required to enable it to proceed with 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.
- 5.2. If possession of a portion is not given by the date stated in the SCC Clause 5.1, 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 shall be in accordance with **GCC** Clause 47.
- 5.3. The Contractor shall bear all costs and charges for special or temporary right-of-way required by it in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by it for purposes of the Works.
- 5.4. The Contractor shall allow the Procuring Entity's Representative and any person authorized by the Procuring Entity's Representative access to the Site and to any place where work in connection with this Contract is being carried out or is intended to be carried out.

6. The Contractor's Obligations

- 6.1. The Contractor shall carry out the Works properly and in accordance with this Contract. The Contractor shall provide all supervision, labor, Materials, Plant and Contractor's Equipment, which may be required. All Materials and Plant on Site shall be deemed to be the property of the Procuring Entity.
- 6.2. The Contractor shall commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program of Work submitted by the Contractor, as updated with the approval of the Procuring Entity's Representative, and complete them by the Intended Completion Date.
- 6.3. The Contractor shall be responsible for the safety of all activities on the Site.
- 6.4. The Contractor shall carry out all instructions of the Procuring Entity's Representative that comply with the applicable laws where the Site is located.
- 6.5. The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the **SCC**, 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.

- 6.6. If the Procuring Entity's Representative asks the Contractor to remove a member of the Contractor's staff or work force, for justifiable cause, the Contractor shall ensure that the person leaves the Site within seven (7) days and has no further connection with the Work in this Contract.
- 6.7. During Contract implementation, the Contractor and his subcontractors shall abide at all times by all labor laws, including child labor related enactments, and other relevant rules.
- 6.8. The Contractor shall submit to the Procuring Entity for consent the name and particulars of the person authorized to receive instructions on behalf of the Contractor.
- 6.9. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Procuring Entity between the dates given in the schedule of other contractors particularly when they shall require access to the Site. The Contractor shall also provide facilities and services for them during this period. The Procuring Entity may modify the schedule of other contractors, and shall notify the Contractor of any such modification thereto.
- 6.10. Should anything of historical or other interest or of significant value be unexpectedly discovered on the Site, it shall be the property of the Procuring Entity. The Contractor shall notify the Procuring Entity's Representative of such discoveries and carry out the Procuring Entity's Representative's instructions in dealing with them.

7. Performance Security

- 7.1. 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 Contractor shall furnish the performance security in any of the forms prescribed in **ITB** Clause 32.2.
- 7.2. The performance security posted in favor of the Procuring Entity shall be forfeited in the event it is established that the Contractor is in default in any of its obligations under the Contract.
- 7.3. The performance security shall remain valid until issuance by the Procuring Entity of the Certificate of Final Acceptance.
- 7.4. The performance security may be released by the Procuring Entity and returned to the Contractor after the issuance of the Certificate of Final Acceptance subject to the following conditions:
 - (a) There are no pending claims against the Contractor or the surety company filed by the Procuring Entity;
 - (b) The Contractor has no pending claims for labor and materials filed against it; and
 - (c) Other terms specified in the **SCC**.
- 7.5. The Contractor shall post an additional performance security following the amount and form specified in **ITB** Clause 32.2 to cover any cumulative increase of more than ten percent (10%) over the original value of the contract as a result of amendments to order or change orders, extra work orders and supplemental agreements, as the case

may be. The Contractor shall cause the extension of the validity of the performance security to cover approved contract time extensions.

- 7.6. In case of a reduction in the contract value or for partially completed Works under the contract which are usable and accepted by the Procuring Entity the use of which, in the judgment of the implementing agency or the Procuring Entity, will not affect the structural integrity of the entire project, the Procuring Entity shall allow a proportional reduction in the original performance security, provided that any such reduction is more than ten percent (10%) and that the aggregate of such reductions is not more than fifty percent (50%) of the original performance security.
- 7.7. Unless otherwise indicated in the **SCC**, the Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to Act 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.

8. Subcontracting

- 8.1. Unless otherwise indicated in the **SCC**, the Contractor cannot subcontract Works more than the percentage specified in **BDS** Clause 8.1.
- 8.2. Subcontracting of any portion of the Works does not relieve the Contractor of any liability or obligation under this Contract. The Contractor 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.
- 8.3. If subcontracting is allowed. The contractor may identify its subcontractor during contract implementation stage. Subcontractors disclosed and identified during the bidding may be changed during the implementation of this Contract. In either case, subcontractors must submit the documentary requirements under ITB Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by any Procuring Entity to be eligible, the subcontracting of such portion of the Works shall be disallowed.

9. Liquidated Damages

- 9.1. The Contractor shall pay liquidated damages to the Procuring Entity for each day that the Completion Date is later than the Intended Completion Date. The applicable liquidated damages is at least one-tenth (1/10) of a percent of the cost of the unperformed portion for every day of delay. The total amount of liquidated damages shall not exceed ten percent (10%) of the amount of the contract. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor' s liabilities. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of this Contract, the Procuring Entity may rescind or terminate this Contract, without prejudice to other courses of action and remedies available under the circumstances.
- 9.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer of the Procuring Entity shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

10. 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.

11. The Procuring Entity, Licenses and Permits

The Procuring Entity shall, if requested by the Contractor, assist him in applying for permits, licenses or approvals, which are required for the Works.

12. Contractor' s Risk and Warranty Security

12.1. The Contractor shall assume full responsibility for the Works from the time project construction commenced up to final acceptance by the Procuring Entity and shall be held responsible for any damage or destruction of the Works except those occasioned by *force majeure*. The Contractor shall be fully responsible for the safety, protection, security, and convenience of his personnel, third parties, and the public at large, as well as the Works, Equipment, installation, and the like to be affected by his construction work.

12.2. The defects liability period for infrastructure projects shall be one year from contract completion up to final acceptance by the Procuring Entity. During this period, the Contractor shall undertake the repair works, at his own expense, of any damage to the Works on account of the use of materials of inferior quality within ninety (90) days from the time the HoPE has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the Procuring Entity shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.

12.3. Unless otherwise indicated in the **SCC**, in case the Contractor fails to comply with the preceding paragraph, 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.

12.4. After final acceptance of the Works by the Procuring Entity, the Contractor shall be held responsible for “ Structural Defects,” *i.e.*, major faults/flaws/deficiencies in one or more key structural elements of the project which may lead to structural failure of the completed elements or structure, or “ Structural Failures,” *i.e.*, where one or more key structural elements in an infrastructure facility fails or collapses, thereby rendering the facility or part thereof incapable of withstanding the design loads, and/or endangering the safety of the users or the general public:

- (a) Contractor – Where Structural Defects/Failures arise due to faults attributable to improper construction, use of inferior quality/substandard materials, and any violation of the contract plans and specifications, the contractor shall be held liable;
- (b) Consultants – Where Structural Defects/Failures arise due to faulty and/or inadequate design and specifications as well as construction supervision, then the consultant who prepared the design or undertook construction supervision for the project shall be held liable;
- (c) Procuring Entity' s Representatives/Project Manager/Construction Managers and Supervisors – The project owner' s representative(s), project manager, construction manager, and supervisor(s) shall be held liable in cases where the Structural Defects/Failures are due to his/their willful intervention in

altering the designs and other specifications; negligence or omission in not approving or acting on proposed changes to noted defects or deficiencies in the design and/or specifications; and the use of substandard construction materials in the project;

- (d) Third Parties - Third Parties shall be held liable in cases where Structural Defects/Failures are caused by work undertaken by them such as leaking pipes, diggings or excavations, underground cables and electrical wires, underground tunnel, mining shaft and the like, in which case the applicable warranty to such structure should be levied to third parties for their construction or restoration works.
- (e) Users - In cases where Structural Defects/Failures are due to abuse/misuse by the end user of the constructed facility and/or non-compliance by a user with the technical design limits and/or intended purpose of the same, then the user concerned shall be held liable.

12.5. The warranty against Structural Defects/Failures, except those occasioned on force majeure, shall cover the period specified in the **SCC** reckoned from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity.

12.6. The Contractor shall be required to put up a warranty security in the form of cash, bank guarantee, letter of credit, GSIS or surety bond callable on demand, in accordance with the following schedule:

Form of Warranty	Amount of Warranty Security Not less than the Percentage (%) of Total Contract Price
(a) Cash or letter of credit issued by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank	Five Percent (5%)
(b) Bank guarantee confirmed by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank	Ten Percent (10%)
(c) Surety bond callable upon demand issued by GSIS or any surety or insurance company duly certified by the Insurance Commission	Thirty Percent (30%)

12.7. The warranty security shall be stated in Philippine Pesos and shall remain effective for one year from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity, and returned only after the lapse of said one year period.

12.8. In case of structural defects/failure occurring during the applicable warranty period provided in **GCC** Clause 12.5, the Procuring Entity shall undertake the necessary restoration or reconstruction works and shall be entitled to full reimbursement by the parties found to be liable for expenses incurred therein upon demand, without prejudice to the filing of appropriate administrative, civil, and/or criminal charges

against the responsible persons as well as the forfeiture of the warranty security posted in favor of the Procuring Entity.

13. 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.

14. Procuring Entity' s Risk

14.1. From the Start Date until the Certificate of Final Acceptance has been issued, the following are risks of the Procuring Entity:

- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to:
 - (i) any type of use or occupation of the Site authorized by the Procuring Entity after the official acceptance of the works; or
 - (ii) negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or contracted to him except the Contractor.
- (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity' s design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

15. Insurance

15.1. The Contractor shall, under his name and at his own expense, obtain and maintain, for the duration of this Contract, the following insurance coverage:

- (a) Contractor' s All Risk Insurance;
- (b) Transportation to the project Site of Equipment, Machinery, and Supplies owned by the Contractor;
- (c) Personal injury or death of Contractor' s employees; and
- (d) Comprehensive insurance for third party liability to Contractor' s direct or indirect act or omission causing damage to third persons.

15.2. The Contractor shall provide evidence to the Procuring Entity' s Representative that the insurances required under this Contract have been effected and shall, within a reasonable time, provide copies of the insurance policies to the Procuring Entity' s Representative. Such evidence and such policies shall be provided to the Procuring Entity' s through the Procuring Entity' s Representative.

15.3. The Contractor shall notify the insurers of changes in the nature, extent, or program for the execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of this Contract and shall produce to the Procuring Entity' s Representative the insurance policies in force including the receipts for payment of the current premiums.

The above insurance policies shall be obtained from any reputable insurance company approved by the Procuring Entity's Representative.

- 15.4. If the Contractor fails to obtain and keep in force the insurances referred to herein or any other insurance which he may be required to obtain under the terms of this Contract, the Procuring Entity may obtain and keep in force any such insurances and pay such premiums as may be necessary for the purpose. From time to time, the Procuring Entity may deduct the amount it shall pay for said premiums including twenty five percent (25%) therein from any monies due, or which may become due, to the Contractor, without prejudice to the Procuring Entity exercising its right to impose other sanctions against the Contractor pursuant to the provisions of this Contract.
- 15.5. In the event the Contractor fails to observe the above safeguards, the Procuring Entity may, at the Contractor's expense, take whatever measure is deemed necessary for its protection and that of the Contractor's personnel and third parties, and/or order the interruption of dangerous Works. In addition, the Procuring Entity may refuse to make the payments under GCC Clause 40 until the Contractor complies with this Clause.
- 15.6. The Contractor shall immediately replace the insurance policy obtained as required in this Contract, without need of the Procuring Entity's demand, with a new policy issued by a new insurance company acceptable to the Procuring Entity for any of the following grounds:
 - (a) The issuer of the insurance policy to be replaced has:
 - (i) become bankrupt;
 - (ii) been placed under receivership or under a management committee;
 - (iii) been sued for suspension of payment; or
 - (iv) been suspended by the Insurance Commission and its license to engage in business or its authority to issue insurance policies cancelled; or
 - (v) Where reasonable grounds exist that the insurer may not be able, fully and promptly, to fulfill its obligation under the insurance policy.

16. Termination for Default of Contractor

- 16.1. The Procuring Entity shall terminate this Contract for default when any of the following conditions attend its implementation:
 - (i) Due to the Contractor's fault and while the project is on-going, it has incurred negative slippage of fifteen percent (15%) or more in accordance with Presidential Decree 1870, regardless of whether or not previous warnings and notices have been issued for the Contractor to improve his performance;
 - (ii) Due to its own fault and after this Contract time has expired, the Contractor incurs delay in the completion of the Work after this Contract has expired; or

- (iii) The Contractor:
 - (i) abandons the contract Works, refuses or fails to comply with a valid instruction of the Procuring Entity or fails to proceed expeditiously and without delay despite a written notice by the Procuring Entity;
 - (ii) does not actually have on the project Site the minimum essential equipment listed on the bid necessary to prosecute the Works in accordance with the approved Program of Work and equipment deployment schedule as required for the project;
 - (iii) does not execute the Works in accordance with this Contract or persistently or flagrantly neglects to carry out its obligations under this Contract;
 - (iv) neglects or refuses to remove materials or to perform a new Work that has been rejected as defective or unsuitable; or
 - (v) sub-lets any part of this Contract without approval by the Procuring Entity.

16.2. All materials on the Site, Plant, Works, including Equipment purchased and funded under the Contract shall be deemed to be the property of the Procuring Entity if this Contract is rescinded because of the Contractor's default.

17. Termination for Default of Procuring Entity

The Contractor may terminate this Contract with the Procuring Entity if the works are completely stopped for a continuous period of at least sixty (60) calendar days through no fault of its own, due to any of the following reasons:

- (a) Failure of the Procuring Entity to deliver, within a reasonable time, supplies, materials, right-of-way, or other items it is obligated to furnish under the terms of this Contract; or
- (b) The prosecution of the Work is disrupted by the adverse peace and order situation, as certified by the Armed Forces of the Philippines Provincial Commander and approved by the Secretary of National Defense.

18. Termination for Other Causes

- 18.1. The Procuring Entity may terminate this Contract, in whole or in part, at any time for its convenience. The HoPE may terminate this Contract for the convenience of the Procuring Entity if he has determined the existence of conditions that make Project Implementation economically, financially or technically impractical and/or unnecessary, such as, but not limited to, fortuitous event(s) or changes in law and National Government policies.
- 18.2. The Procuring Entity or the Contractor may terminate this Contract if the other party causes a fundamental breach of this Contract.
- 18.3. Fundamental breaches of Contract shall include, but shall not be limited to, the following:

- (a) The Contractor stops work for twenty eight (28) days when no stoppage of work is shown on the current Program of Work and the stoppage has not been authorized by the Procuring Entity' s Representative;
 - (b) The Procuring Entity' s Representative instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within twenty eight (28) days;
 - (c) The Procuring Entity shall terminate this Contract if the Contractor is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity and/or the Contractor. In the case of the Contractor's insolvency, any Contractor's Equipment which the Procuring Entity instructs in the notice is to be used until the completion of the Works;
 - (d) A payment certified by the Procuring Entity' s Representative is not paid by the Procuring Entity to the Contractor within eighty four (84) days from the date of the Procuring Entity' s Representative' s certificate;
 - (e) The Procuring Entity' s Representative gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Procuring Entity' s Representative;
 - (f) The Contractor does not maintain a Security, which is required;
 - (g) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the **GCC** Clause 9; and
 - (h) 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, the following:
 - (i) corrupt, fraudulent, collusive, coercive, and obstructive practices as defined in **ITB** Clause 3.1(a), unless otherwise specified in the SCC;
 - (ii) drawing up or using forged documents;
 - (iii) using adulterated materials, means or methods, or engaging in production contrary to rules of science or the trade; and
 - (iv) any other act analogous to the foregoing.
- 18.4. The Funding Source or the Procuring Entity, as appropriate, will seek to impose the maximum civil, administrative and/or criminal penalties available under the applicable law on individuals and organizations deemed to be involved with corrupt, fraudulent, or coercive practices.
- 18.5. When persons from either party to this Contract gives notice of a fundamental breach to the Procuring Entity' s Representative in order to terminate the existing contract

for a cause other than those listed under **GCC** Clause 18.3, the Procuring Entity' s Representative shall decide whether the breach is fundamental or not.

- 18.6. If this Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

19. Procedures for Termination of Contracts

- 19.1. The following provisions shall govern the procedures for the termination of this Contract:

- (a) Upon receipt of a written report of acts or causes which may constitute ground(s) for termination as aforementioned, or upon its own initiative, the Procuring Entity shall, within a period of seven (7) calendar days, verify the existence of such ground(s) and cause the execution of a Verified Report, with all relevant evidence attached;
- (b) Upon recommendation by the Procuring Entity, the HoPE shall terminate this Contract only by a written notice to the Contractor conveying the termination of this Contract. The notice shall state:
 - (i) that this Contract is being terminated for any of the ground(s) aforementioned, and a statement of the acts that constitute the ground(s) constituting the same;
 - (ii) the extent of termination, whether in whole or in part;
 - (iii) an instruction to the Contractor to show cause as to why this Contract should not be terminated; and
 - (iv) special instructions of the Procuring Entity, if any.

The Notice to Terminate shall be accompanied by a copy of the Verified Report;

- (c) Within a period of seven (7) calendar days from receipt of the Notice of Termination, the Contractor shall submit to the HoPE a verified position paper stating why the contract should not be terminated. If the Contractor fails to show cause after the lapse of the seven (7) day period, either by inaction or by default, the HoPE shall issue an order terminating the contract;
- (d) The Procuring Entity may, at anytime before receipt of the Contractor' s verified position paper described in item (c) above withdraw the Notice to Terminate if it is determined that certain items or works subject of the notice had been completed, delivered, or performed before the Contractor' s receipt of the notice;
- (e) Within a non-extendible period of ten (10) calendar days from receipt of the verified position paper, the HoPE shall decide whether or not to terminate this Contract. It shall serve a written notice to the Contractor of its decision and, unless otherwise provided in the said notice, this Contract is deemed terminated from receipt of the Contractor of the notice of decision. The termination shall only be based on the ground(s) stated in the Notice to Terminate; and

- (f) The HoPE may create a Contract Termination Review Committee (CTRC) to assist him in the discharge of this function. All decisions recommended by the CTRC shall be subject to the approval of the HoPE.
- 19.2. Pursuant to Section 69(f) of RA 9184 and without prejudice to the imposition of additional administrative sanctions as the internal rules of the agency may provide and/or further criminal prosecution as provided by applicable laws, the procuring entity shall impose on contractors after the termination of the contract the penalty of suspension for one (1) year for the first offense, suspension for two (2) years for the second offense from participating in the public bidding process, for violations committed during the contract implementation stage, which include but not limited to the following:
- (a) Failure of the contractor, due solely to his fault or negligence, to mobilize and start work or performance within the specified period in the Notice to Proceed (“ NTP”);
 - (b) Failure by the contractor to fully and faithfully comply with its contractual obligations without valid cause, or failure by the contractor to comply with any written lawful instruction of the procuring entity or its representative(s) pursuant to the implementation of the contract. For the procurement of infrastructure projects or consultancy contracts, lawful instructions include but are not limited *to* the following:
 - (i) Employment of competent technical personnel, competent engineers and/or work supervisors;
 - (ii) Provision of warning signs and barricades in accordance with approved plans and specifications and contract provisions;
 - (iii) Stockpiling in proper places of all materials and removal from the project site of waste and excess materials, including broken pavement and excavated debris in accordance with approved plans and specifications and contract provisions;
 - (iv) Deployment of committed equipment, facilities, support staff and manpower; and
 - (v) Renewal of the effectivity dates of the performance security after its expiration during the course of contract implementation.
 - (c) Assignment and subcontracting of the contract or any part thereof or substitution of key personnel named in the proposal without prior written approval by the procuring entity.
 - (d) Poor performance by the contractor or unsatisfactory quality and/or progress of work arising from his fault or negligence as reflected in the Constructor's Performance Evaluation System (“ CPES”) rating sheet. In the absence of the CPES rating sheet, the existing performance monitoring system of the procuring entity shall be applied. Any of the following acts by the Contractor shall be construed as poor performance:
 - (i) Negative slippage of 15% and above within the critical path of the project due entirely to the fault or negligence of the contractor; and

- (ii) Quality of materials and workmanship not complying with the approved specifications arising from the contractor's fault or negligence.
- (e) Willful or deliberate abandonment or non-performance of the project or contract by the contractor resulting to substantial breach thereof without lawful and/or just cause.

In addition to the penalty of suspension, the performance security posted by the contractor shall also be forfeited.

20. Force Majeure, Release From Performance

- 20.1. For purposes of this Contract the terms “*force majeure*” and “fortuitous event” may be used interchangeably. In this regard, a fortuitous event or *force majeure* shall be interpreted to mean an event which the Contractor could not have foreseen, or which though foreseen, was inevitable. It shall not include ordinary unfavorable weather conditions; and any other cause the effects of which could have been avoided with the exercise of reasonable diligence by the Contractor.
- 20.2. If this Contract is discontinued by an outbreak of war or by any other event entirely outside the control of either the Procuring Entity or the Contractor, the Procuring Entity’s Representative shall certify that this Contract has been discontinued. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all works carried out before receiving it and for any Work carried out afterwards to which a commitment was made.
- 20.3. If the event continues for a period of eighty four (84) days, either party may then give notice of termination, which shall take effect twenty eight (28) days after the giving of the notice.
- 20.4. After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the materials and Plant reasonably delivered to the Site, adjusted by the following:
 - (a) any sum to which the Contractor is entitled under GCC Clause 28;
 - (b) the cost of his suspension and demobilization;
 - (c) any sum to which the Procuring Entity is entitled.
- 20.5. The net balance due shall be paid or repaid within a reasonable time period from the time of the notice of termination.

21. Resolution of Disputes

- 21.1. If any dispute or difference of any kind whatsoever shall arise between the parties in connection with the implementation of the contract covered by the Act and this IRR, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 21.2. If the Contractor believes that a decision taken by the Procuring Entity’s Representative was either outside the authority given to the Procuring Entity’s Representative by this Contract or that the decision was wrongly taken, the decision

shall be referred to the Arbiter indicated in the **SCC** within fourteen (14) days of the notification of the Procuring Entity' s Representative' s decision.

- 21.3. Any and all disputes arising from the implementation of this Contract covered by the R.A. 9184 and its IRR shall be submitted to arbitration in the Philippines according to the provisions of Republic Act No. 876, otherwise known as the “ Arbitration Law” and Republic Act 9285, otherwise known as the “ Alternative Dispute Resolution Act of 2004” : *Provided, however*, That, disputes that are within the competence of the Construction Industry Arbitration Commission to resolve shall be referred thereto. The process of arbitration shall be incorporated as a provision in this Contract that will be executed pursuant to the provisions of the Act and its IRR: *Provided, further*, That, by mutual agreement, the parties may agree in writing to resort to other alternative modes of dispute resolution.

22. Suspension of Loan, Credit, Grant, or Appropriation

In the event that the Funding Source suspends the Loan, Credit, Grant, or Appropriation to the Procuring Entity, from which part of the payments to the Contractor are being made:

- (a) The Procuring Entity is obligated to notify the Contractor of such suspension within seven (7) days of having received the suspension notice.
- (b) If the Contractor has not received sums due it for work already done within forty five (45) days from the time the Contractor' s claim for payment has been certified by the Procuring Entity' s Representative, the Contractor may immediately issue a suspension of work notice in accordance with **GCC** Clause 45.2.

23. Procuring Entity' s Representative' s Decisions

- 23.1. Except where otherwise specifically stated, the Procuring Entity' s Representative will decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.
- 23.2. The Procuring Entity' s Representative may delegate any of his duties and responsibilities to other people, except to the Arbiter, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

24. Approval of Drawings and Temporary Works by the Procuring Entity' s Representative

- 24.1. All Drawings prepared by the Contractor for the execution of the Temporary Works, are subject to prior approval by the Procuring Entity' s Representative before its use.
- 24.2. The Contractor shall be responsible for design of Temporary Works.
- 24.3. The Procuring Entity' s Representative' s approval shall not alter the Contractor' s responsibility for design of the Temporary Works.
- 24.4. The Contractor shall obtain approval of third parties to the design of the Temporary Works, when required by the Procuring Entity.

25. Acceleration and Delays Ordered by the Procuring Entity' s Representative

- 25.1. When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Procuring Entity' s Representative will obtain priced proposals

for achieving the necessary acceleration from the Contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date will be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.

- 25.2. If the Contractor's Financial Proposals for an acceleration are accepted by the Procuring Entity, they are incorporated in the Contract Price and treated as a Variation.

26. Extension of the Intended Completion Date

- 26.1. The Procuring Entity's Representative shall extend the Intended Completion Date if a Variation is issued which makes it impossible for the Intended Completion Date to be achieved by the Contractor without taking steps to accelerate the remaining work, which would cause the Contractor to incur additional costs. No payment shall be made for any event which may warrant the extension of the Intended Completion Date.
- 26.2. The Procuring Entity's Representative shall decide whether and by how much to extend the Intended Completion Date within twenty one (21) days of the Contractor asking the Procuring Entity's Representative for a decision thereto after fully submitting all supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

27. Right to Vary

- 27.1. The Procuring Entity's Representative with the prior approval of the Procuring Entity may instruct Variations, up to a maximum cumulative amount of ten percent (10%) of the original contract cost.
- 27.2. Variations shall be valued as follows:
- (a) At a lump sum price agreed between the parties;
 - (b) where appropriate, at rates in this Contract;
 - (c) in the absence of appropriate rates, the rates in this Contract shall be used as the basis for valuation; or failing which
 - (d) at appropriate new rates, equal to or lower than current industry rates and to be agreed upon by both parties and approved by the HoPE.

28. Contractor's Right to Claim

If the Contractor incurs cost as a result of any of the events under **GCC** Clause 13, the Contractor shall be entitled to the amount of such cost. If as a result of any of the said events, it is necessary to change the Works, this shall be dealt with as a Variation.

29. Dayworks

- 29.1. Subject to **GCC** Clause 43 on Variation Order, 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.

29.2. All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Procuring Entity' s Representative. Each completed form shall be verified and signed by the Procuring Entity' s Representative within two days of the work being done.

29.3. The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

30. Early Warning

30.1. The Contractor shall warn the Procuring Entity' s Representative at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Procuring Entity' s Representative may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

30.2. The Contractor shall cooperate with the Procuring Entity' s Representative in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Procuring Entity' s Representative.

31. Program of Work

31.1. Within the time stated in the **SCC**, the Contractor shall submit to the Procuring Entity' s Representative for approval a Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works.

31.2. An update of the Program of Work shall show the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

31.3. 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.

31.4. The Procuring Entity' s Representative' s approval of the Program of Work shall not alter the Contractor' s obligations. The Contractor may revise the Program of Work and submit it to the Procuring Entity' s Representative again at any time. A revised Program of Work shall show the effect of any approved Variations.

31.5. When the Program of Work is updated, the Contractor shall provide the Procuring Entity' s Representative with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

31.6. All Variations shall be included in updated Program of Work produced by the Contractor.

32. Management Conferences

- 32.1. Either the Procuring Entity' s Representative or the Contractor may require the other to attend a Management Conference. The Management Conference shall review the plans for remaining work and deal with matters raised in accordance with the early warning procedure.
- 32.2. The Procuring Entity' s Representative shall record the business of Management Conferences and provide copies of the record to those attending the Conference and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Procuring Entity' s Representative either at the Management Conference or after the Management Conference and stated in writing to all who attended the Conference.

33. Bill of Quantities

- 33.1. The Bill of Quantities shall contain items of work for the construction, installation, testing, and commissioning of work to be done by the Contractor.
- 33.2. The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.
- 33.3. If the final quantity of any work done differs from the quantity in the Bill of Quantities for the particular item and is not more than twenty five percent (25%) of the original quantity, provided the aggregate changes for all items do not exceed ten percent (10%) of the Contract price, the Procuring Entity' s Representative shall make the necessary adjustments to allow for the changes subject to applicable laws, rules, and regulations.
- 33.4. If requested by the Procuring Entity' s Representative, the Contractor shall provide the Procuring Entity' s Representative with a detailed cost breakdown of any rate in the Bill of Quantities.

34. Instructions, Inspections and Audits

- 34.1. The Procuring Entity' s personnel shall at all reasonable times during construction of the Work be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of the construction.
- 34.2. If the Procuring Entity' s Representative instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no defect, the test shall be a Compensation Event.
- 34.3. The Contractor shall permit the Funding Source named in the **SCC** to inspect the Contractor' s accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Funding Source, if so required by the Funding Source.

35. Identifying Defects

The Procuring Entity' s Representative shall check the Contractor' s work and notify the Contractor of any defects that are found. Such checking shall not affect the Contractor' s responsibilities. The Procuring Entity' s Representative may instruct the Contractor to search uncover defects and test any work that the Procuring Entity' s Representative considers below standards and defective.

36. Cost of Repairs

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability Periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

37. Correction of Defects

- 37.1. The Procuring Entity's Representative shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which is One (1) year from project completion up to final acceptance by the Procuring Entity's Representative.
- 37.2. Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified in the Procuring Entity's Representative's notice.
- 37.3. The Contractor shall correct the defects which he notices himself before the end of the Defects Liability Period.
- 37.4. The Procuring Entity shall certify that all defects have been corrected. If the Procuring Entity considers that correction of a defect is not essential, he can request the Contractor to submit a quotation for the corresponding reduction in the Contract Price. If the Procuring Entity accepts the quotation, the corresponding change in the SCC is a Variation.

38. Uncorrected Defects

- 38.1. The Procuring Entity shall give the Contractor at least fourteen (14) days notice of his intention to use a third party to correct a Defect. If the Contractor does not correct the Defect himself within the period, the Procuring Entity may have the Defect corrected by the third party. The cost of the correction will be deducted from the Contract Price.
- 38.2. The use of a third party to correct defects that are uncorrected by the Contractor will in no way relieve the Contractor of its liabilities and warranties under the Contract.

39. Advance Payment

- 39.1. 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.
- 39.2. The advance payment shall be made only upon the submission to and acceptance by the Procuring Entity of an irrevocable standby letter of credit of equivalent value from a commercial bank, a bank guarantee or a surety bond callable upon demand, issued by a surety or insurance company duly licensed by the Insurance Commission and confirmed by the Procuring Entity.
- 39.3. The advance payment shall be repaid by the Contractor by an amount equal to the percentage of the total contract price used for the advance payment.
- 39.4. The contractor may reduce his standby letter of credit or guarantee instrument by the amounts refunded by the Monthly Certificates in the advance payment.

- 39.5. The Procuring Entity will provide an Advance Payment on the Contract Price as stipulated in the Conditions of Contract, subject to the maximum amount stated in SCC Clause 39.1.

40. Progress Payments

- 40.1. The Contractor may submit a request for payment for Work accomplished. Such request 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.
- 40.2. The Procuring Entity shall deduct the following from the certified gross amounts to be paid to the contractor as progress payment:
- (a) Cumulative value of the work previously certified and paid for.
 - (b) Portion of the advance payment to be recouped for the month.
 - (c) Retention money in accordance with the condition of contract.
 - (d) Amount to cover third party liabilities.
 - (e) Amount to cover uncorrected discovered defects in the works.
- 40.3. Payments shall be adjusted by deducting therefrom the amounts for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Procuring Entity's Representative within twenty eight (28) days from the date each certificate was issued. No payment of interest for delayed payments and adjustments shall be made by the Procuring Entity.
- 40.4. The first progress payment may be paid by the Procuring Entity to the Contractor provided that at least twenty percent (20%) of the work has been accomplished as certified by the Procuring Entity's Representative.
- 40.5. Items of the Works for which a price of "0" (zero) has been entered will not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

41. Payment Certificates

- 41.1. The Contractor shall submit to the Procuring Entity's Representative monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 41.2. The Procuring Entity's Representative shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 41.3. The value of Work executed shall:
- (a) be determined by the Procuring Entity's Representative;
 - (b) comprise the value of the quantities of the items in the Bill of Quantities completed; and

(c) include the valuations of approved variations.

- 41.4. The Procuring Entity's Representative may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

42. Retention

- 42.1. The Procuring Entity shall retain from each payment due to the Contractor an amount equal to a percentage thereof using the rate as specified in GCC Sub-Clause 42.2.
- 42.2. Progress payments are subject to retention of ten percent (10%), referred to as the "retention money." Such retention shall be based on the total amount due to the Contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of Works, as determined by the Procuring Entity, are completed. If, after fifty percent (50%) completion, the Work is satisfactorily done and on schedule, no additional retention shall be made; otherwise, the ten percent (10%) retention shall again be imposed using the rate specified therefor.
- 42.3. The total "retention money" shall be due for release upon final acceptance of the Works. The Contractor may, however, request the substitution of the retention money for each progress billing with irrevocable standby letters of credit from a commercial bank, bank guarantees or surety bonds callable on demand, of amounts equivalent to the retention money substituted for and acceptable to the Procuring Entity, provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the ten (10%) percent retention shall be made. Said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of the Government shall be valid for a duration to be determined by the concerned implementing office/agency or Procuring Entity and will answer for the purpose for which the ten (10%) percent retention is intended, *i.e.*, to cover uncorrected discovered defects and third party liabilities.
- 42.4. On completion of the whole Works, the Contractor may substitute retention money with an "on demand" Bank guarantee in a form acceptable to the Procuring Entity.

43. Variation Orders

- 43.1. Variation Orders may be issued by the Procuring Entity to cover any increase/decrease in quantities, including the introduction of new work items that are not included in the original contract or reclassification of work items that are either due to change of plans, design or alignment to suit actual field conditions resulting in disparity between the preconstruction plans used for purposes of bidding and the "as staked plans" or construction drawings prepared after a joint survey by the Contractor and the Procuring Entity after award of the contract, provided that the cumulative amount of the Variation Order does not exceed ten percent (10%) of the original project cost. The addition/deletion of Works should be within the general scope of the project as bid and awarded. The scope of works shall not be reduced so as to accommodate a positive Variation Order. A Variation Order may either be in the form of a Change Order or Extra Work Order.
- 43.2. A Change Order may be issued by the Procuring Entity to cover any increase/decrease in quantities of original Work items in the contract.

- 43.3. An Extra Work Order may be issued by the Procuring Entity to cover the introduction of new work necessary for the completion, improvement or protection of the project which were not included as items of Work in the original contract, such as, where there are subsurface or latent physical conditions at the site differing materially from those indicated in the contract, or where there are duly unknown physical conditions at the site of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the Work or character provided for in the contract.
- 43.4. Any cumulative Variation Order beyond ten percent (10%) shall be subject of another contract to be bid out if the works are separable from the original contract. In exceptional cases where it is urgently necessary to complete the original scope of work, the HoPE may authorize a positive Variation Order go beyond ten percent (10%) but not more than twenty percent (20%) of the original contract price, subject to the guidelines to be determined by the GPPB: *Provided, however*, That appropriate sanctions shall be imposed on the designer, consultant or official responsible for the original detailed engineering design which failed to consider the Variation Order beyond ten percent (10%).
- 43.5. In claiming for any Variation Order, the Contractor shall, within seven (7) calendar days after such work has been commenced or after the circumstances leading to such condition(s) leading to the extra cost, and within twenty-eight (28) calendar days deliver a written communication giving full and detailed particulars of any extra cost in order that it may be investigated at that time. Failure to provide either of such notices in the time stipulated shall constitute a waiver by the contractor for any claim. The preparation and submission of Variation Orders are as follows:
- (a) If the Procuring Entity's representative/Project Engineer believes that a Change Order or Extra Work Order should be issued, he shall prepare the proposed Order accompanied with the notices submitted by the Contractor, the plans therefore, his computations as to the quantities of the additional works involved per item indicating the specific stations where such works are needed, the date of his inspections and investigations thereon, and the log book thereof, and a detailed estimate of the unit cost of such items of work, together with his justifications for the need of such Change Order or Extra Work Order, and shall submit the same to the HoPE for approval.
 - (b) The HoPE or his duly authorized representative, upon receipt of the proposed Change Order or Extra Work Order shall immediately instruct the appropriate technical staff or office of the Procuring Entity to conduct an on-the-spot investigation to verify the need for the Work to be prosecuted and to review the proposed plan, and prices of the work involved.
 - (c) The technical staff or appropriate office of the Procuring Entity shall submit a report of their findings and recommendations, together with the supporting documents, to the Head of Procuring Entity or his duly authorized representative for consideration.
 - (d) The HoPE or his duly authorized representative, acting upon the recommendation of the technical staff or appropriate office, shall approve the Change Order or Extra Work Order after being satisfied that the same is justified, necessary, and in order.

- (e) The timeframe for the processing of Variation Orders from the preparation up to the approval by the Procuring Entity concerned shall not exceed thirty (30) calendar days.

44. Contract Completion

Once the project reaches an accomplishment of ninety five (95%) of the total contract amount, the Procuring Entity may create an inspectorate team to make preliminary inspection and submit a punch-list to the Contractor in preparation for the final turnover of the project. Said punch-list will contain, among others, the remaining Works, Work deficiencies for necessary corrections, and the specific duration/time to fully complete the project considering the approved remaining contract time. This, however, shall not preclude the claim of the Procuring Entity for liquidated damages.

45. Suspension of Work

- 45.1. The Procuring Entity shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary, due to *force majeure* or any fortuitous events or for failure on the part of the Contractor to correct bad conditions which are unsafe for workers or for the general public, to carry out valid orders given by the Procuring Entity or to perform any provisions of the contract, or due to adjustment of plans to suit field conditions as found necessary during construction. The Contractor shall immediately comply with such order to suspend the work wholly or partly.
- 45.2. The Contractor or its duly authorized representative shall have the right to suspend work operation on any or all projects/activities along the critical path of activities after fifteen (15) calendar days from date of receipt of written notice from the Contractor to the district engineer/regional director/consultant or equivalent official, as the case may be, due to the following:
 - (a) There exist right-of-way problems which prohibit the Contractor from performing work in accordance with the approved construction schedule.
 - (b) Requisite construction plans which must be owner-furnished are not issued to the contractor precluding any work called for by such plans.
 - (c) Peace and order conditions make it extremely dangerous, if not possible, to work. However, this condition must be certified in writing by the Philippine National Police (PNP) station which has responsibility over the affected area and confirmed by the Department of Interior and Local Government (DILG) Regional Director.
 - (d) There is failure on the part of the Procuring Entity to deliver government-furnished materials and equipment as stipulated in the contract.
 - (e) Delay in the payment of Contractor's claim for progress billing beyond forty-five (45) calendar days from the time the Contractor's claim has been certified to by the procuring entity's authorized representative that the documents are complete unless there are justifiable reasons thereof which shall be communicated in writing to the Contractor.
- 45.3. In case of total suspension, or suspension of activities along the critical path, which is not due to any fault of the Contractor, the elapsed time between the effectivity of the

order suspending operation and the order to resume work shall be allowed the Contractor by adjusting the contract time accordingly.

46. Payment on Termination

- 46.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Procuring Entity's Representative shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.
- 46.2. If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Procuring Entity's Representative shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.
- 46.3. The net balance due shall be paid or repaid within twenty eight (28) days from the notice of termination.
- 46.4. If the Contractor has terminated the Contract under **GCC** Clauses 17 or 18, the Procuring Entity shall promptly return the Performance Security to the Contractor.

47. Extension of Contract Time

- 47.1. Should the amount of additional work of any kind or other special circumstances of any kind whatsoever occur such as to fairly entitle the contractor to an extension of contract time, the Procuring Entity shall determine the amount of such extension; provided that the Procuring Entity is not bound to take into account any claim for an extension of time unless the Contractor has, prior to the expiration of the contract time and within thirty (30) calendar days after such work has been commenced or after the circumstances leading to such claim have arisen, delivered to the Procuring Entity notices in order that it could have investigated them at that time. Failure to provide such notice shall constitute a waiver by the Contractor of any claim. Upon receipt of full and detailed particulars, the Procuring Entity shall examine the facts and extent of the delay and shall extend the contract time completing the contract work when, in the Procuring Entity's opinion, the findings of facts justify an extension.
- 47.2. No extension of contract time shall be granted the Contractor due to (a) ordinary unfavorable weather conditions and (b) inexcusable failure or negligence of Contractor to provide the required equipment, supplies or materials.
- 47.3. Extension of contract time may be granted only when the affected activities fall within the critical path of the PERT/CPM network.
- 47.4. No extension of contract time shall be granted when the reason given to support the request for extension was already considered in the determination of the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection.

47.5. Extension of contract time shall be granted for rainy/unworkable days considered unfavorable for the prosecution of the works at the site, based on the actual conditions obtained at the site, in excess of the number of rainy/unworkable days pre-determined by the Procuring Entity in relation to the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection, and/or for equivalent period of delay due to major calamities such as exceptionally destructive typhoons, floods and earthquakes, and epidemics, and for causes such as non-delivery on time of materials, working drawings, or written information to be furnished by the Procuring Entity, non-acquisition of permit to enter private properties or non-execution of deed of sale or donation within the right-of-way resulting in complete paralyzation of construction activities, and other meritorious causes as determined by the Procuring Entity's Representative and approved by the HoPE. Shortage of construction materials, general labor strikes, and peace and order problems that disrupt construction operations through no fault of the Contractor may be considered as additional grounds for extension of contract time provided they are publicly felt and certified by appropriate government agencies such as DTI, DOLE, DILG, and DND, among others. The written consent of bondsmen must be attached to any request of the Contractor for extension of contract time and submitted to the Procuring Entity for consideration and the validity of the Performance Security shall be correspondingly extended.

48. Price Adjustment

Except for extraordinary circumstances as determined by NEDA and approved by the GPPB, no price escalation shall be allowed. Nevertheless, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GoP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

49. Completion

The Contractor shall request the Procuring Entity's Representative to issue a certificate of Completion of the Works, and the Procuring Entity's Representative will do so upon deciding that the work is completed.

50. Taking Over

The Procuring Entity shall take over the Site and the Works within seven (7) days from the date the Procuring Entity's Representative issues a certificate of Completion.

51. Operating and Maintenance Manuals

51.1. If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the **SCC**.

51.2. If the Contractor does not supply the Drawings and/or manuals by the dates stated in the **SCC**, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative shall 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																			
1.17	The Intended Completion Date is 150 calendar days .																		
1.22	The Procuring Entity is <i>Philippine Science High School – Bicol Region Campus</i>																		
1.23	The Procuring Entity’ s Representative is <i>ENGR. LORVI B. PAGOROGON</i> <i>Campus Director</i>																		
1.24	The Site is located at <i>Tagongtong, Goa, Camarines Sur</i>																		
1.28	The Start Date is <i>the date of receipt of Notice to Proceed (NTP)</i>																		
1.31	<i>The Works consist of completion of laboratory and technology building which includes all additions necessary to implement the whole set of approved plans, working drawings and specifications for the project.</i> <i>All items shown on the Plans but not mentioned in the Specifications shall be included. Discrepancies shall be verified with the Procuring Entity.</i>																		
2.2	<i>Not Applicable</i>																		
5.1	The Procuring Entity shall give possession of all parts of the Site to the Contractor <i>upon NTP</i> .																		
6.5	<p>The Contractor shall employ the following Key Personnel:</p> <p>The minimum work experience requirements for key personnel are the following:</p> <table><tr><td><u>Key Personnel</u></td><td><u>General Experience</u></td><td><u>Relevant Experience</u></td></tr><tr><td colspan="3">Construction Stage</td></tr><tr><td>a. Civil Engineer</td><td rowspan="3">}</td><td rowspan="3">at least 5 years experience</td></tr><tr><td>b. Electrical Engineer</td></tr><tr><td>c. Mechanical Engineer</td></tr><tr><td>d. Materials Engineer</td><td rowspan="2">}</td><td rowspan="2">at least 3 years experience</td></tr><tr><td>c. Foreman</td></tr><tr><td colspan="3">d. Safety Officer (accredited safety practitioner by the Department of Labor and Employment (DOLE) and has undergone the prescribed 40 hour Construction Safety and Health Training (COSH)</td></tr></table> <p><i>The above key personnel listed are required. The CONTRACTOR may, as</i></p>	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>	Construction Stage			a. Civil Engineer	}	at least 5 years experience	b. Electrical Engineer	c. Mechanical Engineer	d. Materials Engineer	}	at least 3 years experience	c. Foreman	d. Safety Officer (accredited safety practitioner by the Department of Labor and Employment (DOLE) and has undergone the prescribed 40 hour Construction Safety and Health Training (COSH)		
<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>																	
Construction Stage																			
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c. Mechanical Engineer																			
d. Materials Engineer	}	at least 3 years experience																	
c. Foreman																			
d. Safety Officer (accredited safety practitioner by the Department of Labor and Employment (DOLE) and has undergone the prescribed 40 hour Construction Safety and Health Training (COSH)																			

	<p><i>needed and at its own expense, add additional professionals and/or support personnel for the optimal performance of all Construction Services, for the PROJECT. Prospective bidders shall attach each individual' s resume and PRC license of the (professional) staff, proof of qualifications, and related documents as necessary.</i></p> <p><i>[NOTE: The names of the Key Personnel and their designation shall be filled out by winning contractor prior to contract signing.]</i></p>
7.4 (c)	"No further instructions."
7.7	No further instructions.
8.1	No further instructions.
10	The site investigation reports are:
12.3	No further instructions.
12.5	Fifteen (15) years.
13	<i>if the Contractor is a joint venture, " All partners to the joint venture shall be jointly and severally liable to the Procuring Entity."</i>
18.3(h)(i)	No further instructions.
21.2	The Arbiter is:
29.1	Day works are applicable at the rate shown in the Contractor' s original Bid.
31.1	The Contractor shall submit the Program of Work to the Procuring Entity' s Representative within ten (10) calendar days of delivery of the Notice of Award.
31.3	<p>The period between Program of Work updates is <i>fifteen (15) days</i>.</p> <p>The amount to be withheld for late submission of an updated Program of Work is _____.</p>
34.3	The Funding Source is the <i>Government of the Philippines.</i>
39.1	The amount of the advance payment is <i>15% of the Contract Price.</i>
40.1	Materials and equipment delivered on the site but not completely put in place shall be included for payment.
51.1	The date by which " as built" drawings are required is before full payment of the contract.
51.2	The amount to be withheld for failing to produce " as built" drawings and/or operating and maintenance manuals by the date required is ____.

Section VI. Specifications

TECHNICAL SPECIFICATIONS

Section IV PROJECT : COMPLETION OF ACADEMIC BUILDING III

PROCURING ENTITY : PHILIPPINE SCIENCE HIGH SCHOOL-BICOL REGION CAMPUS

LOCATION : BGY. TAGONGTONG, GOA, CAMARINES

OUTLINE OF GENERAL CONSTRUCTION
--

INTENT AND APPLICATION OF THE PROVISIONS OF THIS SECTION

A. The Scope of Work covered with in these Specifications is the completion of the three-storey

PSHS-BRC ACADEMIC BUILDING III, Bgy. Tagongtong, Goa, Camarines Sur , Philippines.

B. This section is prepared in a concise manner, the intention of which is to save time and effort in locating important contents within these Specifications.

C. Execution of this Section shall be coordinated and harmonized to each corresponding elaborated section of these same specifications.

D. The Scope of Work covered with in these Specifications is the completion of the three-storey

PSHS-BRC ACADEMIC BUILDING III, Bgy. Tagongtong, Goa, Camarines Sur , Philippines.

E. This section is prepared in a concise manner, the intention of which is to save time and effort in locating important contents within these Specifications.

F. Execution of this Section shall be coordinated and harmonized to each corresponding elaborated section of these same specifications.

G. **In case discrepancies exist between this Section and its corresponding elaborated sections, notify the Procuring Entity immediately for clarification; their decision shall be final.**

H. The Contractor shall bear the responsibility of checking all the numbers and units as indicated in the Bill of Quantities. It is understood that the Contractor shall supply and install the required units in accordance with the Plans and the Specifications.

I. In their bid proposal, the bidders may propose materials or equipment or makes other than those specified in the BOQ and/or Specifications, provided they are of equivalent specifications and functionalities.

J. During project implementation, the winning bidder/contractor may propose substitution of material so equipment or makes other than those specified in the Contract documents shall be subject to the approval of the Procuring Entity for the following reasons only:

1. That the materials or equipment proposed for substitution is equal or superior to the materials or equipment specified in construction efficiency and utility provided that any and all costs relative there of shall be shouldered by the Contractor.
2. Or that the materials or equipment specified cannot be delivered to the job site on time to complete the work of the other Contractors due to conditions beyond the control of the Contractor.
3. In case of a price difference, the Procuring Entity shall receive all benefits of the difference in cost involved in any substitution and the Contract shall be altered by Change Order to credit the Procuring Entity with any savings so obtained.

H. ***To receive consideration, request(s) for substitution shall be accompanied by documentary proof of equality or difference in price and delivery, if any, in the form of certified quotations and guaranteed date of delivery from suppliers of either the proposed substituted materials or equipment.***

II

GENERAL CONDITIONS OF PLANS AND SPECIFICATIONS

The execution of this Specification, Plans and other related Contract Documents shall be subjected to the rules and regulations as provided in the General Conditions of the Contract. **The Plans and specifications shall be interpreted by the Procuring Entity and or his/her representative.** The Contractor is enjoined to confer with the Procuring Entity on items for clarification before submitting his bid. No excuses shall be entertained for misinterpretation of the Plans and specifications after the award of contract. All work as deemed required by the Procuring Entity shall be carried out properly by the Contractor.

- A. The Contractor shall consult the Procuring Entity on portion of the work not mentioned in the Specification and not illustrated on the Plans. He shall not work without proper instruction or detailed plans approved by the Procuring Entity, otherwise he shall be responsible for the in acceptance of the work done without details. In such case, the Contractor shall make good the work at his own expense.
- B. No alteration or addition shall be allowed without the consent and proper documentation approved by the Procuring Entity, even such change is ordered by the Procuring Entity. The Contractor shall bring the case to the Procuring Entity. Request for approval of such changes, alteration, deviation of work shall not be done without the consent of the Procuring Entity. Changes may be presented to the Procuring Entity in the form of shop drawings.

TWO (2) SET of clean Plans and specification shall always be kept at the job site to be available to the Procuring Entity or their representative upon his request during the construction.

III

SCOPE OF WORK

- a. The Contractor shall conduct thorough inspection of the existing jobsite conditions.
- b. The scope of work shall include all additions necessary in order to implement the whole set of approved Plans, Working Drawings and Specifications.
- c. The Contractor shall secure and do all the leg work necessary for all pertinent permits needed for the Procuring Entity to occupy and use the building,

- d. The Contractor shall construct All Architectural, Structural, Electrical, Sanitary/Plumbing, Mechanical/Fire Protection works in accordance with the Plans and Specifications. All items shown on the Plans but not mentioned in the Specifications shall be included. Discrepancies shall be verified with the Procuring Entity.
- e. The Contractor shall construct All Architectural, Structural, Electrical, Sanitary/Plumbing, Mechanical /Fire Protection works in accordance with the Plans and Specifications. All items shown on the Plans but not mentioned in the Specifications shall be included. Discrepancies shall be verified with the Procuring Entity.
- f. The Contractor shall submit details and shop drawings, templates, and schedules required for the coordination of the work of the various trades. Drawings should include information on all working dimensions, arrangement and sectional views, connections and materials.
- g. **Final Cleaning As Pre-requisite To Final Acceptance:** Final cleaning of the work by a reputable building maintenance company shall be employed by the General Contractor prior to the Procuring Entity' s final inspection for certification of final acceptance. Final Cleaning shall be applied on each surface or unit of work and shall be of condition expected for a first class building cleaning and maintenance program.
- h. The Contractor shall be responsible for the safety and safe working practices of its respective employees, servants and agents.
- i. The Procuring Entity may at anytime without invalidating the Contract make changes by altering, adding to or deducting from the work as covered by the drawings, specifications, and general scope in written instructions. Provisions under General Conditions of the contract cover such circumstances.

III

SUMMARY OF MATERIALS AND FINISHES

GENERAL NOTES:

1. Bidders are limited to the choice of brand, make, source, manufacturer, installer or specialty trade contractors specified herein.
2. When an or equal is placed immediately after the specified material, the bidder is allowed to make substitution. The procuring entity, however, reserved the right to accept or reject the proposed substitute.

3. Samples of materials and latest catalogue of fixtures, fittings, accessories and equipment specified herein shall be submitted to the procuring entity for verification and approval before purchase and installation.
4. Samples of finishing materials and finishes are to be submitted for approval before fabrication and or use.
5. Kiln dried lumber shall come from the processing plant approved procuring entity.

I. Carpentry		
A.	<p>Rough Carpentry:</p> <p>a. Seasoned Lawaan, immersed in</p> <p>colorless PENTACHLOROPHENOL</p> <p>or CHLORDANE 1 or SOLIGNUM</p> <p>for a minimum of 24 hrs.</p>	For solid door frames
B.	<p>Fiber Cement Board</p> <p>a. Hardieflex Fiber Cement Board</p>	For Drywall Partition
C.	<p>Plywood:</p> <p>a. ¾ " Marine Plywood</p> <p>b. Laminated MDF Board (oak)</p>	<p>For Soldering Table Base, Cabinets And Bookshelves</p> <p>For Laptop Table, with siding treatment.</p>

V. Hardware	
A. Door knob: a. Stainless Lever Type Door Knob B. Hinges: a. 3"x3" Loose Pin Door Hinges others: a. Stainless Door Handle	For solid panel doors For solid panel doors For solid panel doors
b. Chrome T-Bar pull handle	For Glass Door
c. Stainless Top Pivot	For Glass Door
d. Stainless hinges/ stopper	For Glass Door
e. Stainless lower Corner with	For Glass Door
Floor spring	
VII. Glass and Glazing	
A. Wall Partition: a. FD-100 Aluminum Frame Powder Coated – Matte Black b. Frameless Glass Swing Door	Verify plans ----- -----

XI. Plumbing	
	<p>For sanitary lines</p> <p>a. 3/4"dia.PPR Pipe -----</p> <p>b. 3/4"dia.PPR Coupling/Socket -----</p> <p>c. 3/4"x1/2"dia.PPR Reducer -----</p> <p>d. 1/2"dia.PPR Pipe -----</p> <p>e. 1/2"dia.PPR Coupling/Socket -----</p> <p>f. 1/2"dia.Female PPR Connector -----</p> <p>g. 1/2"dia.Male PPR Connector -----</p> <p>h. 1/2"dia.x90deg.Treaded Elbow -----</p> <p>i. 1/2"dia.x90deg.Plain Elbow -----</p> <p>j. 1/2"dia.x90deg.Treaded Tee -----</p> <p>k. 1/2"dia.x90deg.Plain Tee -----</p> <p>l. 1/2"dia.PPR Stop valve -----</p> <p>m. 1/2"dia.PPR End Cap -----</p> <p>n. Check Valve</p> <p>o. Gate Valve</p>

IX. Finishes	
<p>A. Paints:</p> <p>a. GTO Body Filler</p> <p>b. Semi-gloss White</p> <p>d. QDEPaint</p> <p>B. Floor Finishes:</p> <p>a. .60m x .60 Hi-Gloss Tiles</p>	<p>For solid panel doors</p> <p>For interior walls</p> <p>For Steel</p> <p>Verify plans</p>

XI. Plumbing	
<p>a. 3/4" dia.PPR Pipe</p> <p>b. 3/4" dia.PPR Coupling/Socket</p> <p>c. 3/4"x1/2" dia.PPR Reducer</p> <p>d. 1/2" dia.PPR Pipe</p> <p>e. 1/2" dia.PPR Coupling/Socket</p> <p>f. 1/2" dia.Female PPR Connector</p> <p>g. 1/2" dia.Male PPR Connector</p> <p>h. 1/2" dia.x90deg.Treaded Elbow</p> <p>i. 1/2" dia.x90deg.Plain Elbow</p> <p>j. 1/2" dia.x90deg.Treaded Tee</p> <p>k. 1/2" dia.x90deg.Plain Tee</p> <p>l. 1/2" dia.PPR Stop valve</p> <p>m. 1/2" dia.PPR End Cap</p> <p>n. Check Valve</p> <p>o. Gate Valve</p>	<p>For sanitary lines</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p>

XII. Electrical

a. # 12 TW Stranded Wire	For wiring
b. # 10 TW Stranded Wire	-----

c. # 8 TW Stranded Wire	-----
d. # 6 TW Stranded Wire	-----
e. # 1/0 TW Stranded Wire	-----
	For conduits
a. 3" , 1 1/2" , 1" , 3/4" , 1/2" Conduit	-----
b. 1.25"dia. Coupling	-----
d. 1.25"dia. Locknut	-----
e. 1.25"dia. Bushing	-----
f. 1"dia. Rigid Steel Conduit	-----
h. 1.25"dia. Coupling	-----
i. 1.25"dia. Locknut	-----
j. 1.25"dia. Bushing	-----
k. 1/2"dia. Flexible Pipe	-----
l. 3/4"dia. Flexible Pipe	-----
m. 1/2"dia. Long Sweep Elbow	-----
n. 3/4"dia. Long Sweep Elbow	-----
o. 1/2"dia. PVC Clips	-----
p. 3/4"dia. PVC Clips	-----
q. 400cc UPVC Solvent	-----
r. 1"dia. PVC Electrical Pipe	-----
s. 3/4"dia. PVC Electrical Pipe	-----

t. 1/2" dia. PVC Electrical Pipe

	For electrical boxes
a. 8 Holes Panel Board	-----
b. 8"x8" Metal Box	-----
<hr/>	
c. 4"x4" Junction Box	-----
d. 2"x4" Utility box	-----
e. electric tape	-----
f. Rubber Tape	
	For breakers
a. 15 Amps Safety Breaker	-----
b. 20 Amps Circuit Breaker	-----
c. 30 Amps Circuit Breaker	-----
d. 40 Amps Circuit Breaker	-----
e. 60 Amps Circuit Breaker	-----

XIII. Mechanical	
a. Fire Hose Cabinet b. Sprinkle Head (Pendent Type) c. 10 lbs. Fire Extinguisher	Verify Plans ----- ----- -----

CHAPTER I

CARPENTRY

PART 1 – GENERAL

1.1 SCOPE OF WORKS

The works to be done under this Item consist of furnishing all required materials, fabricated woodwork, tools, equipment and labor and performing all operations necessary for the satisfactory completion of all carpentry and joinery works in strict accord with the applicable drawings, details and these Specifications.

PART 2 – PRODUCTS

2.1 MATERIAL REQUIREMENTS

A. Lumber

Lumber of the different species herein specified for the various of the structure shall be well seasoned, sawn straight , sun-dried or kiln-dried and free from defects such as loose and unsound knots, pitch, pockets, sapwood, cracks and other imperfections impairing its strength, durability and appearance.

B. Grades of Lumber and Usage

1. **Stress grade lumber** is seasoned, close- grained and high quality umber of the specified specie, free from defects and suitable for sustaining heavy load.
2. Stress grade lumber shall be used for wooden structural members subject to heavy loads, and for sub-floor framing imbedded or in contact with concrete and masonry.
3. **Select grade lumber** of the specified specie is generally of high quality of good appearance, without imperfections, and suitable for use without waste due to defects and suitable also for natural finish.
4. **Select grade lumber** shall be used for flooring, sidings, fascia and base boards, trims, molding, millwork, railings, stairs, cabinet work, shelves, doors, windows, and frame of openings.
5. Common grade lumber has minimum tight medium knot not larger than 25 mm in diameter, with minimal imperfections, without sapwood, without decay, insect holes, and suitable for use with some waste due to minor defects and suitable also for paint finish.
6. Common grade lumber shall be used for light framework for walls and partitions, ceiling joists and nails.

C. Lumber Species and Usage

Unless otherwise specified on the Plans, the following lumber species shall be used as indicated:

1. **Lawaan(*select grade*)** for door frames/panels set in wooden framework, for trellis, cabinet work, shelves, flooring and sidings.

D. Moisture Content

1. Rough Lumber for framing and siding boards shall be air-dried or sun-dried such that its moisture content shall not exceed 22 percent.

2. Dressed lumber for exterior and interior finishing for doors and windows, millwork, cabinet work and flooring boards shall be kiln dried having no moisture content in excess of 14 percent at the time of its installation.

E. Substitution in Lumber Specie

1. Any lumber equally good for the purpose intended may be substituted for the specified kind subject to the prior approval of the supervising Engineer. Provided that the substitution shall be of an equal or better specie acceptable to the supervising Engineer.
2. In case of substitution with better specie, no additional cost there for shall be allowed to the Contractor.

F. Plywood

Plywood shall be of good grade and made of laminated wood strips bonded together with water resistant

resin glue.

1. The laminated glue core shall be finished both faces with select grade tanguile, red lawaan veneers or equivalent not less than 2 mm thick, similarly bonded to the core.
2. The plywood of not less than 19 mm thick shall be free from defects such as split in veneer, buckling or warping and shall conform to the requirements of the Philippine Trade Standards 631-02.
3. Thickness of a single layer of laminae shall not be less than 2 mm. The laminae shall be superimposed in layers with grains crossing at right angles in successive layers to produce stiffness.
4. The face veneers shall be rotary cut from selected grade timber. The laminae and face veneers shall be bonded with water resistant resin glue, hot pressed and pressure treated.
5. Ordinary tanguile, red lawaan, palosapis or equivalent grade with good quality face veneers, 6 mm thick shall be used for double walling and ceiling not exposed to moisture.

G. Material Other than Lumber

1. Glue

Shall be from water resistant resins which, upon hardening, shall not dissolve nor lose its bond or holding power even when soaked with water for extended period.

Glue powder form shall be in soaked container and shall be without evidence of lumping or deterioration in quality.

2. Fasteners

Nails, screw, bolts and straps shall be provided and used where suitable for fixing carpentry and joinery works. All fasteners shall be brand new and of adequate size to ensure rigidity of connections.

Nails of adequate size shall be steel wire, diamond-pointed, ribbed shank and bright finish.

Screw of adequate size shall be cadmium or brass plated steel with slotted head.

Lag Screw of adequate size, for anchoring heavy timber framing in concrete or masonry, shall be galvanized steel.

Bolts and nuts shall be of steel having a yield point of not less than 245 Mpa. Bolts shall have square heads and provided with standard flat steel washers and hexagonal nuts and provided with standard flat steel washers and hexagonal nuts.

Threads shall conform to American coarse thread series. The threaded portion shall be long enough such that the nut can be tightened against the bolted members without any need for blocking.

The threaded bolt shall be finished smooth for ease of engaging and turning of nut.

Wrought Iron Straps or Angles, when required in conjunction with bolts or lag screws to provide proper anchorage shall be of the shape and size shown on Plans.

PART 3 – EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

1.

Quality of Materials

All materials to be incorporated in the carpentry and joinery works shall be of approved quality specified. Before using, all materials shall have been inspected and inspected and accepted by supervising Architect or Engineer.

2. Storage and Protection of Materials

- a. Lumber and other materials shall be protected from dampness during and after delivery at the site.
- b. Materials shall be delivered well in advance of actual need and in adequate quantity to preclude delay in the work.
- c. Lumber shall be piled in orderly stack at least 15.0 cm. above the ground and at sheltered place where it will be of least obstruction to work.

3. Shop Drawing

Complete Shop Drawings with essential dimensions and details of construction, as may be required by the supervising Architect or Engineer in connection with carpentry and joinery work, shall be submitted for approval before proceeding with the work.

4. Rough Carpentry

Rough carpentry covers timber structural framing for roof, flooring, siding, partition and ceiling.

- a. Framing shall be *stress grade or common grade lumber* of the specie specified. Rough carpentry shall be done true to lines, levels and dimensions. It shall be squared, aligned, plumbed and well fitted at joints.

- b. Trusses and other roof framing shall be assembled, fitted and set to exact location and slope indicated on the Plans.
- c. Fasteners, connectors and anchors of appropriate type, size and number shall be provided and fitted where necessary.
- d. Structural members shall not be cut, bored or notched for the passage of conduits or pipes without prior approval of the supervising Architect or Engineer.
- e. Members damaged by such cutting or boring shall be reinforced by means of specifically formed and

approved steel plates or shapes. Otherwise, damaged structural members shall be removed and replaced to the satisfaction of the Architect or Engineer.
- f. Timber framing in contact with concrete or masonry shall be treated with termite proofing solution and after drying coated with bituminous paint.

5. Finished Carpentry

Finished carpentry covers work on flooring, siding and ceiling boards, stairs, cabinets, fabricated

woodwork, millwork and trims.

- a. Framing lumber shall be selected grade, free from defects and where exposed in finished work, shall be selected for color and grain.
- b. Joints of framing shall be tenoned, mortised or doweled where suitable, closely fitted and secured with water resistant resin glue. Exterior joints shall be mitered and interior angles coped.

- c. Panels shall be fitted to allow for construction or expansion and insure that the panels remain in place without warping, splitting and opening joints.
- d. Exposed edges of plywood or plywood for cabinets shall be provided with select grade hardwood strips, rabbetted as necessary, glued in place and secured with finishing nails. To prevent splitting, hardwood for trims shall be drilled before fastening with nails or screws.
- e. Fabricated woodwork shall be done preferably at the shop. It shall be done true to details and profiles indicated on the Plans.
- f. Where set against concrete or masonry, woodwork shall be installed after curing is completed.
- g. Exposed wood surfaces shall be free from disfiguring defects such as raised grains, stains, uneven planning, sanding, tool marks and scratches.
- h. Exposed surfaces shall be machine or hand sanded to an even smooth surface, ready for finish.

6. Fasteners

- a. **Nails** shall not be driven closer together than one half their length unless driven in bored holes, or closer to the edge of the timber than one quarter their length.
- b. Nails shall penetrate by at least half their length into the timber farthest from the head. End distance, edge distance and spacing of nails shall be such as to avoid splitting of wood.
- c. **Lag Screw** shall be set into pre-bored lead holes and not driven. The lead hole for the hank shall have the same diameter as the shank and the same depth as the unthreaded portion of the shank.
- d. The **lead hole** for the threaded portion shall have a diameter equal to about 75% of the diameter of the shank and the same length as the threaded portion.
- e. **Lengths of bolts** shall be enough to extend through the nut and an allowance for nut tightening.
- f. All nuts shall be accessible for servicing by wrenches.
- g. Bolts shall be set into drill holes suitably sized enough for snug fit.

7. Pressure Treated Lumber and Plywood

- a. Lumber, plywood and plyboard specified a treated with wood preservative shall be preservative shall be pressured treated with water borne preservative as Wolman Salt, Boliden Salt or Tanalith H-R.
- b. Pressure treatment shall meet the standards set by the American Wood Preserves Association per publication C 2-77, or the Philippine Trade Standards PTS 243-02.000 as to penetration and amount of chemicals retained in the treated lumber.
- c. Final retention of chemicals in the wood shall be a minimum of 5.6 kg/m³
- d. Pressure treated lumber shall be accompanied by a certification of pressure treatment from the wood preserving plant as to the pressure treatment, sizes and quantity of wood treated.
- e. Notwithstanding the presentation of said certification, the supervising Architect or Engineer may require physical inspection and undertake borings to ascertain penetration of preservative into the wood.
- f. Each boring should show penetration of not less than 2.5 centimeters.

8. Rat Proofing

- a. Enclosed hollow spaces between wooden flooring and ceiling and between double sidings or partitions shall be made rat proof in accordance with Department of Health Requirements.
- b. Hollow space between wooden flooring and ceiling shall be rendered rat-proof by laying continuous strips of galvanized iron sheet or 10 mm wire mesh, about 25 cm wide and centered along floor

plates or sills of partitions and exterior walls.

- c. The rat proofing strips shall be sandwiched between floor joists/ plates and sills of partitions or sidings. The strips shall be nailed to the top of joists as well as to underside of sills and floor boards.
- d. This part of the rat proofing may be omitted whenever it is clear that an equally effective protection is provided by concrete or tile floors or by the upper surface of reinforced concrete or tile floors or by the upper surface of reinforced concrete or steel directly supporting the sidings.
- e. All exterior openings between adjoining floor joist and girders or beam that might give rats direct access into the hollow space inside, shall we not closed by the fascia board or the like, be covered with strips of the same rat proofing material of sufficient size to close entirely the opening in question.
- f. Double sidings or partitions as well as furred posts are made rat proof by lining the inner face of the board or panel sheeting with continuous vertical strips of the aforementioned rat proofing material up to a height of at least 30 cm from the base of the partition, siding or furred post. The lower edge of the rat proofing sheet shall be in contact with the floor throughout its entire length.

9. Measurement and Payment

- a. Carpentry and Joinery Work shall be measured per complete item supplied, installed and accepted.
- b. Payment shall be based on the measured quantity of each completed item and the Unit Bid Price as quoted in the Bid Proposal.
- c. Such unit bid price shall be inclusive of all plant, materials, labor, overhead, profit and other incidental expenses in connection with the finished work.
- d. Structural timber framework for roofing, flooring, partition and siding shall be measured on the basis of lumber board feet involved and paid for based on the quoted bid price per board foot. Such bid price shall be inclusive of fasteners needed to complete the framework.
- e. Flooring and siding boards, base and fascia boards, solid panels, stairs, handrails and trims shall be measured on the basis of number of board feet involved and paid for based on the corresponding quoted unit bid price per board foot.

- f. Double walling for partitions and sidings shall be measured on the basis of the area involved in square meters and paid for based on the quoted unit bid price per square meter.
- g. Ceiling boards shall be measured based on the area involved in square meters. Payment shall be based on the quoted unit bid price per square meter. Such unit bid price shall be inclusive of the cost of nailers, hangers and fasteners.
- h. Cabinets shall be measured based on the area involved in square meters. Payment shall be based on the number of units completed and the unit bid price per unit.
- i. Incidental work for the main items on carpentry and joinery work such as wood preservation, rat proofing and any other items necessary to complete the work but not specifically mentioned in the Bill of Quantities contained in the Bid Proposal shall be deemed to be covered by the unit or lump sum prices quoted for the other items of work listed in said Bill of Quantities.

Pay Item Number	Description	Unit of Measure
Item-1	Structural timber framework	-----Bd. -----Ft.
Item-2	Flooring, and siding boards, Base and Fascia boards, solid Panels, stair, handrails and trims-----	Bd. Ft.
Item-3	Double walling-----	Sq. M.
Item-4	Tables, and other Furnitures -----	Sq. M.
Item-5	Cabinets -----	Each

CHAPTER II

HARDWARE

PART 1 – GENERAL

1.1 SCOPE OF WORK

This Item shall consist of furnishing and installing all building hardware required to ensure rigidity of joints or connections of the different parts of the structure and equipment in a satisfactory operating condition parts of the structure such as doors, windows, cabinets, lockers, drawers and other similar operating parts as indicated on the plans and in accordance with this Specifications.

1. The contractor shall provide all rough hardware required for the completion of the work, including nails, spikes, bolts, log screws, etc. and shall provide and fit in place all finishing hardware hereinafter specified-put on in the most improved manner with screws to match the finish.
2. The contractor shall provide and fit in place all hardware not herein specifically mentioned but necessary to leave the work complete. All such hardware should there be any, shall conform in every respect to the balance of the hardware herein specified.
3. Finishing hardware, suitable to the service required to fully equip in the most satisfactory operative condition, for all doors, windows transom sashes, screen doors and windows, closet, built-in cabinets 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 adoptable to the finishing, shape or size of members requiring the hardware, suitable types having as applicable the same operation and quality as the corresponding individual types specified shall be furnished.

PART 2 – PRODUCTS

2.1 MATERIAL REQUIREMENTS

A. Rough Hardware

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

B. Finishing Hardware

All finishing hardware consisting of locksets, latches, bolts and other devices, door closers, knobs, handles, hinges and other similar hardware shall be first class quality available locally and conforming with the following Specifications.

1. Door Locksets

Door locks appropriate for particular functions shall be of durable construction, preferably the product of reputable manufacturer for consistent quality and master keying.

2. Hinge

Hinge unless otherwise indicated on the Plans shall be brass coated wrought iron steel for interior Solid doors and stainless steel for Glass Doors

3. Double Swing Frameless Glass Door Hardware

All Hardwares for frameless glass door shall be Stainless steel and shall be of first class quality.

4. Fastenings

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.

5. Exposed Items of Hardware

- a. After hardware has been properly fitted, all exposed items such as knobs platers, pulls, locks, etc., shall be removed until final coat of painters finish has been applied, and then hardware installed.

- b. Other items of hardware, unless to be painted over 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 has been applied, after which such protective cover shall be removed.

2.2 PLACING ORDER OF HARWARE

1. The contractor shall place his order for all hardware early in order to avoid delay in the job.
2. No request for extension of time shall be entertained by the Owner due to this delay and
3. No substitution of hardware shall be allowed due to negligence of contractor on this matter.

PART 3 – EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

A. Door Knobs, and Latch Strikes

1. All lock and latch strikes shall be installed in door frames at the same height from the floor.
2. Door knobs shall be located so that the center of the knob is 95 centimeters from the finished floor and or as directed by the supervising Engineer.

B. Butt Hinges

1. Each panel of hinged doors shall be hung on two (2) butts for doors 1.50 m. or less in height.
2. Three (3) butts, over 1.50 m. high and not over 2.10 m. Four (4) butts above 2.10 m. in height.
3. Doors of a greater height than 2.10 m. unless otherwise specified shall be hung on an additional one butt for each 65 centimeters or fraction thereof.

Thickness of door	Width of door	Size of Butt Hinges
21 or 25 mm (7/8-1")	90 cm.	63 mm (2-1/2")
28 mm (1-1/8")	90 cm	75 x 75 mm (3" x 3")
35 mm (1-3/8")	90 cm	88 x 88 mm (3-1/2")
44 mm (1-3/4")	90 cm	100 x 100 mm (4" x 4")
56 mm x 63 mm	90 cm	125 x 125 mm (5" X 5")

4. Where the size of the butt hinges is not sufficient to allow door to clear door trim in open position, same shall be increased.

C. Counters, Shelves, Cabinets, Lockers, etc.

1. Other hardware not covered by previous specifications for all wooden counters, shelves, cabinets, drawers, cabinet doors, closet doors, cup abroad, or wall cabinets, glass show cases, storage shelves, work tables, lockers and all other woodwork and interior finishing of similar nature indicated on plans are included in this contract.
2. It shall be done in accordance with detail drawings and full size details which shall be requested by the Contractor from the supervising Engineer, well ahead of their installation.
3. The Contractor shall furnish and install all necessary hardware for all the above work, complete and suitable to the service required to fully equip them in very satisfactory operative condition in strict accordance with this section of the Specifications and the applicable drawings
4. All modification in hardware required by reason of construction indicated shall be made to provide specific operative functional requirements.
5. All hingers that are needed shall be steel brass plated and of the size suitable for the purpose. Use Hager, Stanley, Kwikset or Corbin or an approved equivalent.
6. All necessary hardware for all woodwork specified above such as bolts, automatic catches, cylinder locks, drawer pulls, cabinet and closet door pull knots, push or cover plates, strikes, holder, indicators, push or pull bars, drawer locks, etc., shall be cast bronze or brass chromium finished in accordance with the specifications.
7. Their sizes shall be suitable for the purpose approved by the Procuring entity or in accordance with those shown and specified in the full size details.
8. Schedule of all hardware to be purchased by the Contractor shall be submitted first to the supervising Engineer for approval before ordering them.
9. All hardware shall be brought to the job in original package. Samples shall accompany schedules.

D. Butt Hinges Make

For all doors on Butt Hinges, unless otherwise specified, use botton stop butts, Hager, Sanley, Kwikset or

approved equivalent highly polished and plated with non raising pin for door opening outside.

E. Cabinet Door Catch and Pull

1. Each cabinet door sash shall be provided with a door pull, Corbin No. 4374, extruded brass, chrome finish, or approved.
2. Cabinet doors with locks shall be provided with elbow-catches, Corbin No. 01623 cast bronze or approved equal on the inactive sash.
3. Cabinet doors not provided with locks shall be provided and fitted with fraction catches.
4. Sliding cabinet doors shall be provided with drawer pulls of the flush type, cast brass or bronze.

F. Drawer Pull Locks

1. Each drawer shall be provided with pulls of the type specified for cabinet doors.
2. The Contractor shall provide and set complete, ready for operation, one pin tumbler cylinder lock of the medium of standard type, for each door in accordance with the schedule below.
3. U.S. Standard finishes as specified shall apply to all locks used “ Russwin, Yale, Corbin, Weiser, Schalge of the Standard type, or the approved equivalent.
4. The trade mark and plate numbers given herein are to designate only the quality, type, operation, materials and style or design required.
5. Schedule of Locksets: (In this Item, specify the name if door lock as to the brand, serial number,

color, and what particular door is to be installed such as: main door, bed room, toilet, etc.)

G. Master Key and Grand Master Key

1. All lock shall be Master keyed as stated on the above schedule of lockset and grand master keying for the whole building.
2. Before placing the purchase order for door locks, it shall comply with the manufacturer' s requirements regarding the master keying for the locks.
3. The keying for this project shall be in accordance with the requirement of the Owner.
4. Supply of Keys:

D-1	Grand Master Key	-----	6
		each	
D-2	Master Key-----		3 each
D-3	Keys for each lock	-----	3
		each	

As specification writer, you can make your own specification as to the number, quality and type.

This is only a guide how you will prepare your specifications.

5. Other doors not included in this schedule, but necessary to leave the works complete, shall be

provided and fitted complete, by the Contractor with one lockset suitable to the service required and depending under which type and finish of each door lock, shall be classified by the Architect or Engineer.

CHAPTER III

DOORS

A. WOOD FRAMED DOORS

PART 1 – GENERAL

1.1 SCOPE OF WORKS

The work includes furnishing and installation of all wood doors and frames and all appurtenances complete in place.

PART 2 – PRODUCTS

2.1 MATERIAL REQUIREMENTS

A. Wood panel doors shall be made of solid, kiln dried, Tanguile wood stiles, rails, mullions, beads and panels, 45 mm thick, unless otherwise specified.

B. All door frames shall be made of solid, kiln dried, Tanguile wood. Joints shall be mortise and tenon, joined with an approved type of glue. Wood work shall be as shown on the drawings, sanded, filled, resanded, and finished as specified in Section 33035, Painting.

PART 3 – EXECUTION

3.1 FINISH

After fabrication and before installation, all wood doors and frames shall be coated with an approved synthetic resin clear sealer and shall be protected from damage until installation.

3.2 INSTALLATION

All wood doors and frames shall be fitted plumb and square in walls and openings by means of screws and expansion shields, as shown on the Drawings.

PART 1 –

GENERAL

1.1 SCOPE OF WORKS

The scope of work under this Item is the same as that of Aluminum Semi-Frameless Glass Partitions and Frameless Glass Doors and also the Material and construction Requirements of Section 11-1 and 11-2 of this chapter respectively.

PART 2 – PRODUCT

2.1 MATERIAL REQUIREMENTS (as shown in schedule of Doors & Windows)

A. Powder Coated Aluminum Frame Semi-Frameless Glass Wall Partition (12mm tempered glass)

B. Frameless Glass Double Swing Door (12mm tempered glass)

Panels shall be connected at corners with miter joint fixed rigidly to ensure weather tightness.

A. Cleaning

1. The contractor does not only protect all entrance units during the construction phase but shall also be responsible for removal of protective materials and cleaning the aluminum surface including glazing before work is accepted by the supervising Architect or Engineer.
2. Aluminum shall be thoroughly cleaned with kerosene or gasoline diluted with water and then wipes surface using clean cloth rags.
3. No abrasive cleaning materials shall be permitted is cleaning aluminum surfaces.

PART 3 - EXECUTION

All panels shall be set plumb and true to line in openings. The joints between the window frame and masonry shall be carefully caulked.

CHAPTER IV

GLASS AND GLAZING

PART 1 – GENERAL

1.1 SCOPE OF WORKS

This Item consists of furnishing all glass and glazing materials, labor, tools, plant and equipment required in undertaking the proper installation as shown on the Plans and in accordance with this Specification.

PART 2 – PRODUCTS

2.1 MATERIAL REQUIREMENTS

All glass and glazing materials shall be delivered at jobsite with labels affixed indicating quality, make, type and thickness. Each glass in glazed position shall resist a design pressure of 244 kilograms per square meter.

A. Clear Glass

1. Tempered clear glass for use at interior/exterior wall aluminium doors and windows. Glass shall conform to ASTM C1036, Type 1, Class 1.
2. 12 mm heat-strengthened glass for use at frameless door panels and window panels.

B. Glazing Materials

1. Glazing materials for glass installation may be:
 - a. Bulk compound such as mastic that are elastic and non-skinning compound.

- b. Putties- wood sash putty, or metal sash quality.
 - c. Sealant- shall be chemically compatible with setting blocks, edge blocks and sealing tapes.
- 2. Performed Sealant such as:
 - a. Synthetic polymer- shall be base sealant that is resilient or non-resilient type.
 - b. Performed Gasket- shall be compression or structural type.
- 3. Setting and Edge Blocks shall be made of lead or neoprene, chemically compatible with sealant.
- 4. Accessories like glazing clips, shims spacer strips etc. shall be made from non-corroding metal accessories.

PART 3 – EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

- 1. Safety precaution and procedure shall be observed in determining the sizes and in providing the required clearances by measuring the actual opening to receive the glass.
- 2. Movable items or parts shall be kept in a closed and locked position until after the glazing compound has thoroughly set.
- 3. All glass sheets shall be bedded, back puttied, secured in place and face puttied. Secure glass in aluminum frame with non-corrosive clips except where glazing beads are required.
- 4. Apply putty in uniformly straight lines, with accurately formed bevels and clean cut corners, and then remove excess putty from glass and frames.
- 5. Set glass in hollow metal doors and in metal frames of interior partitions in felt channel insets or bedded in putty to prevent any rattle.
 - a. Secure glass in wood doors and wooden frames with glazing stops.
 - b. Secure stops on doors with screws.

6. Glass breakage caused in executing the work or by faulty installation shall be replaced by the Contractor without extra cost.
7. Improperly installed glass which does not fully meet the requirements of its grade, will not be accepted and shall be replaced without extra cost.
8. The Contractor shall provide and install complete set ready or use mirrors in all comfort rooms and elsewhere shown on the Plans. The size and location for each mirror shall be as indicated on the Plans or as directed by the Engineer.

A. Workmanship

1. All glass shall be accurately cut to fit openings and set with equal bearing on the entire width of plane.
2. Putty shall be neatly run in straight lines parallel with inside of glazing rebate.
3. Corners shall be carefully made. All excess putty shall be removed and surfaces left clean.
4. Apply a thin of putty to rebate and set glass. Apply putty by pressing into an even bed secured.
5. Place spring wire or angle glazing clips and run face putty. Remove excess putty from other side flush with edge of rebate.

B. Cleaning

Clean all glass on both sides after putty has been applied completely. Do not disturb edge of putty with

scraper. At completion of work leave glass and glazing works free from cracks and rattles and clean on both sides.

C. Samples

The Contractor shall submit for approval duplicate sample (15 cm. X 25 cm.) of each type of glass bearing manufacturer' s label and a can of each type of putty.

CHAPTER V

FINISHES

A.PAINTING

PART 1 – GENERAL

1.1 SCOPE OF WORK

This item shall consist of furnishing all paints, enamels, varnishes and other products to be used including labor, tools and equipment required as shown on the Plans and in accordance with this Specification.

PART 2 – PRODUCT

2.1 MATERIAL REQUIREMENTS

- a. All paint materials shall meet the requirements of the Standard Specification of the Standardization Committee on supplies.
- b. All paint materials shall be delivered on the job-site in their original containers with labels and seals unbroken.
- c. Manufacture or brand of painting materials to be used shall either be Dutch Boy, Davies, Boysen or any equivalent approved by the designing Architect.

Kind of Paint	Intended use
Flat latex white	interior ceiling
Semi-gloss	interior and exterior walls
Clear Gloss Lacquer	for wood use
QDE Paint	for Steel use

Traffic
Paint

for PWD Symbol

1. Tinting color

Tinting colors shall be first grade pigments ground in alkyd resin, which disperse and mix easily with paint to produce colors desired.

2. Patching Compound

Patching compound shall be fine powder material that can be mixed into putty consistency with oil base primers and paints to fill minor surface dents and imperfection.

3. Natural Wood paste Filler

Wood paste filler shall be quality filler ready mixed in can for filling and sealing open grains of interior wood. It shall produce a level finish for succeeding coats of paint, varnish or lacquer and other related products.

4. Wood Stain

Wood stain shall contain colored pigments and oil which penetrate the wood and provide a rich and lasting protective stain.

5. Varnish

Varnish shall be extremely durable clear coating, highly resistant to wear and tear without cracking, peeling, whitening, spotting, with minimum loss of gloss for maximum period of time.

6. Lacquer

Lacquer shall be clear gloss, solid nitrocellulose base specially formulated for the use in the tropics. It shall exhibit fast solvent release and dries to a hard but flexible film with high gloss effect.

7. Sanding Sealer

Sanding sealer shall be quality sealer for wood surfaces that provides a non-absorbent base for color treatment which are applied on it. It shall exhibit good hold out and sealing properties, fast drying and easy to smooth by sandpaper.

8. Glazing Putty

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

9. Concrete Neutralizer

Neutralizer shall be quality surface conditioner to be diluted with water to neutralize lime activity in new exterior and interior concrete surfaces improving paint adhesion and durability.

10. Silicon Water Repellant

Silicone water repellent shall be transparent water shield especially formulated to repel rain and moisture on exterior masonry surfaces.

PART 3 – EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

The Contractor prior to commencement of the work shall be examine the surfaces to be applied with paints, enamels, varnishes, lacquers, sanding sealers and other related products in order not to jeopardize the quality and appearance of painting and finishing work

A. SURFACE PREPARATION

1. Surface Examination

No exterior paint or interior finishing shall be done under condition which may jeopardize the quality of appearance of the painting finishing.

2. Preparation

- a. All surfaces to receive paint should be cleaned and in proper condition. Wood work shall be sandpapered and dusted clean, all knot holes, pitch pockets, or sappy portions shall be shellacked or sealed with knot-sealer.
- b. Nail holes, cracks or defects shall be carefully puttied after the first coat with putty matching color of the stain or paint.

3. Interior Woodworks

Finishing shall be sandpapered between coats. Cracks, holes or imperfections in plaster shall be filled with patching plaster and smoothed off to match adjoining surfaces.

4. Plaster or Masonry

- a. Masonry or plaster shall be completely dried before any sealer or paint is applied.
- b. After the primer sealer coat is dried, all visible suction spots shall be toughed up before the succeeding coats are applied.
- c. Work shall not be continued until after all spots have been sealed. In the presence of high alkali conditions, surfaces shall be washed to neutralize the alkali.

5. Metals

- a. Metal shall be clean, dry and free from mill scale, oil, grease and rust.
- b. Unprimed galvanized metal shall be primed with quality epoxy metal primer paint, red lead, or red oxide primer.
- c. Cleaned metal shall be primed with quality epoxy metal primer paint, red lead, or red oxide primer.

6. Concrete and brick surface

The surface shall be wire brushed clean. Glazed surface and those with traces of patching compound shall sand papered or acid etched before applying a primer.

7. Cleaning Methods

a) **Sunblasting** – There are three general method used in sunblasting:

- 1. *Conventional dry sandblasting* – The sand is not recycled. However, respirators and other safety precautions shall be observed since environment restrictions on dry blasting are becoming increasingly severe.
- 2. *Vacuum Sandblasting* – This method reduces health hazard, the sand is recovered outright. It is however costlier and less efficient compared with the dry blasting method. The vacuum method is useful inside shops and in areas where dust might damage machineries.
- 3. *Wet Sandblasting* – This method reduces the hazard of dust and maybe required by legal restrictions. The wet sand and residues accumulate on ledges and other flat areas where rinsing operation is necessary.

- b) **Wire Brushing and Scraping** – Power and hand wire brushing shall be used on small jobs in the cleaning areas after sandblasting and on surfaces where sandblasting is not feasible.
- c) **Power Tools** – Power tools such as rotary wire and disc tools, rotary impact chippers and needles sealers shall be used if sandblasting is not feasible.
- d) **Water Blasting** – Water blasting shall be used in cleaning and removing old paint from large masonry surfaces. It is generally used and acceptable for health and environmental requirements.
- e) **Acid-etching** – use an acid solution with or without detergent to roughen a dense glazed surface. Rise thoroughly the acid-etched surface to remove the residual soluble reaction of calcium and magnesium chloride which affect the adhesion and stability of latex paint in particular.
- f) **Paint remover** – Both the conventional solvent base and the water rinse able types of paint removers may be used to removed old paint. Most paint removers contain was, this wax shall be removed completely before painting for it destroy adhesion and inhibit the drying of paint.
- g) **Alkali Cleaning** – Alkali cleaners shall not be used in masonry surfaces adjacent to aluminum, stainless steel or galvanized metal.

Surfaces which are cleaned by alkali cleaners must be thoroughly rinse and clean with water. Residual alkali and detergents can cause greater damage to paint of they are not removed completely.

8. Surfaces Conditioning

- a. All surfaces shall be in proper condition to receive the paint finish. Woodwork shall be hand -sanded smooth and dusted clean, with knotholes pitch pockets or sappy portions sealed with natural wood filler.
- b. Nail holes, cracks or defects shall be carefully puttied after the first coat matching the color of paint.
- c. Interior woodworks shall be sand-papered between coats. Cracks holes or imperfections in plaster shall be filled with patching plaster and smoothed off match adjoining surfaces.
- d. Concrete and masonry surfaces shall be coated with concrete neutralizer and allowed to dry before any painting primer is applied.
- e. When surface is dried, apply first coating. Hairline cracks and unevenness shall be patched and sealed with approved putty or patching compound. After all defects are corrected, apply the finish coats as specified on the Plan in accordance with the approved color scheme.
- f. Metals shall be clean, dry and free from mill scale and rust. Removed all grease and oil from surfaces. Wash, unprimed galvanized metal with etching solution and allow it to dry.
- g. Metal surfaces shall be primed with red oxide, red lead or epoxy primer as specified before final coat is applied.

In addition, the contractor shall undertake the following:

1. Voids, cracks, and other kind of defects, shall be repaired with proper patching materials and finished flush with the surrounding surfaces.
2. Marred or damaged shop coats on metal shall be spot primed with appropriate metal primer.
3. No painting and varnishing works shall be done during rainy or damp weather.
4. Varnish should not be applied when the temperature is too hot or cold. Allow appropriate ventilation during application and drying period.

5. All hardware shall be protected or removed prior to painting and varnishing operation.

9. Application

- a. Paints when applied by brush shall be none fluid, thick enough to lay down an adequate film of wet paint. Brush marks shall flawed out after the application of paint.
- b. Paints prepared for application by roller must be similar to brushing paint. It must be non sticky when thinned to spaying viscosity to break up easily into droplets.
- c. Paint is atomized by high pressure pumping rather than broken up by the large volume of air mixed with it. This procedure changes the required properties of the paint.

10. Workmanship

- a. All works shall be performed by experienced and skilled craftsmen to assure finished work of first class quality, appearance and durability.
- b. All paints, and other coating shall be mixed and applied strictly in accordance with the manufacturers printed instructions.

11. Mixing and thinning

- a. At the time of application, paint shall show no sign of deterioration. Paint shall be thoroughly stirred, strained and kept at uniform consistency during application.
- b. When thinning is necessary, this may be done immediately prior to application in accordance with the manufacturer' s directions, but not in excess of 1 pint of suitable thinner per gallons of paint.
- c. Kerosene shall not be use as paint thinner. Paints of different manufacturer shall not be mixed together.

12. Storage

- a. All materials to be used under this item shall be stored in a single place to be designated by the Architect and such place shall be kept neat and clean at all time.
- b. Necessary precautions to avoid fire must be observed by removing oily rags, waste, etc. at the end of daily work.

13. Cleaning

- a. All cloths and cotton waste which are fire hazards shall be placed in the metal container or destroyed at the end of daily works.
- b. Upon completion of the work, all staging, scaffolding and paint containers shall be removed and disposed.
- c. Paint drips, oil or stains on adjacent surfaces shall be removed and the entire job left clean and acceptable to the supervising Architect or Engineer.

B. CERAMIC TILES

SCOPE OF WORK

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

A-1 MATERIALS REQUIREMENTS

A. Ceramic tiles

1. Ceramic tiles and trims shall be made of clay or a mixture of clay and other materials which is called the body of the tile classified by ASTM C-242 as to their degree of water absorption.
2. Ceramic tiles and trims are manufactured either by dust pressed process or by plastic process in which the clays are made plastic by mixing with water, shaped by extrusion or in models and then fired.

B. Unglazed tile and trim

1. Unglazed tiles shall be hard dense tile of homogeneous composition. Its color and characteristics are determined by the materials used in the body, the method of manufacture and the thermal treatment. Unless otherwise specified, used unglazed tiles for all floors as indicated on the plan.
2. Trims are manufactured to match wall tile color, texture and to coordinate with it in dimension.
3. These are shaped in various ceramic trim units such as caps, bases coves, bull-nose, corners, angles, etc. that are necessary for edging or making a transition between intersecting surfaces.

C. Synthetic granite white tiles

A-2 CONSTRUCTION REQUIREMENTS

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

A. Surfaces Preparation

1. Mortar mix for scratch coat and setting bed shall consist of one part Portland cement $\frac{1}{4}$ parts sand by volume.
2. Surface to receive tile must be level, true to elevation, dry, free from dirt, oil and other kinds of ointments.
3. Allow at least seven days curing of scratch coat and setting bed installation work shall be allowed to proceed until unsatisfactory conditions are corrected.
4. Thoroughly dampen surfaces of masonry or concrete before scratch coat is applied.

5. On masonry surfaces apply first a thin coat with pressure, then bring it out sufficiently to compensate for the major irregularities of the surfaces to a thickness not less than 10 mm at any point.
6. Evenly rake the scratch coat to provide good mechanical key before the mortar mix has fully hardened.

B. Installation of Ceramic Unglazed Wall Tiles

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

1. Determine and mark layouts of ceramic tiles as to joint location, position of trims and fixtures so as to minimize cutting less than one half size of the tile.
2. Thoroughly dampen surface of wall but not to saturate the surfaces,
3. Apply a bond coat mix with consistency of cream paste 1.5 mm thick to the wall surface or to the back of the tile to be laid.
4. Lay the tiles true to profile then exert pressure and tamp tile surface before the bond coat mix has initially set.
5. Continue with the next fill tile to be laid and pressed firmly upon the setting bed tamped until flush and in placed of the other tiles.
6. Intersections and returns shall be formed accurately using the appropriate trim.
7. All lines shall be kept straight and true to profiles, plumbed and internal corners rounded using the appropriate trims.

C. Installation of Vitrified Unglazed Floor Tiles

1. Before tile is laid to the floor, surface shall be tested for levelness or uniformity of slope by flooding it with water. Area where water ponds are filled and leveled, shall be tested again before the setting bed is applied.
2. Established the lines of borders and center of the walls of the field work in both directions to permit the pattern to be laid with a minimum cutting of tiles.

3. Clean concrete sub-floor then moisten but do not soak. Then, sprinkle dry cement over the surface and spread the mortar 0ont the setting bed.
4. Apply and spread mortar mix for setting bed and tamp to assure good bond over the entire area to be laid with tile.
5. Pitch floor to drain as shown on Plans or as directed by the Architect or Engineer.
6. Allow the setting bed to set sufficiently, then spread a bond of coat over the surfaced and lay the tile.

D. Grouting and Pointing.

1. Before grouting of joints, tiles shall have been laid in place for at least 24 hours. Grouting mortar shall be white Portland cement or blended with pigments to acquire the color appropriate for the ceramic tiles.
2. Grouting mortar shall be applied over the tile by float or squeegee stroked diagonally across the joints.
3. Removed excess mortar with a wet sponge stroked diagonally or in circular motion after 12-15 minutes.
4. Follows with a barely damp or dry sponge to removed remaining haze while smoothing all grouted joints.

E. Cleaning

1. Clean ceramic tiles surfaces thoroughly as possible upon completion of grouting.
2. Removed all grout haze observing tile manufacturer' s instructions as to the use of acid or chemical cleaners.
3. Rinse tile thoroughly with clean water before and after using chemical cleaners.
4. Polish surface of tile with soft cloth.

F. Protection

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

A-2 CONSTRUCTION REQUIREMENTS

A. Installation

Installation of the tiles shall not commence until the work of other trade, including painting has been completed.

1. The Contractor shall carefully examine all surfaces over which the tiles are to be set.
2. Floor surfaces that are to receive vinyl tile shall be clean; thoroughly dry; smooth; firm and sound; free from oil, paint, wax, dirt, and other damaging materials.

C. Tile Laying Design

- 1.The tile laying design shall be indicated on Plans and in the colors selected and approved by the Engineer for each area.
- 2.All joints shall be parallel to wall lines except otherwise indicated on plan.
- 3.Where line patterns of tile run perpendicular to lines of other tiles, they shall be laid truly at right angles.

D. Adhesive

- 1.Adhesive shall be applied in accordance with the adhesive manufacturer' s printed directions unless specified of directed otherwise.
- 2.Smoking, the use of open flames, and other sources of ignitions are strictly prohibited in the area where solvent containing adhesives are being used or laid.

E. Application of the Tiles

- 1.Start in the center of the room or work area and work from the center towards the edges.
- 2.Keep tile lines and joints square, symmetrical, tight and even and keep each floor in a true, level plane, except where indicated as sloped.
- 3.Vary edge width as necessary to maintain full size tiles in the field but no edges tile shall be less than one half the field tile size, except where irregular shaped rooms make it impossible.

F. Cutting

- 1.Cut vinyl floor tile to and fit around all permanent fixtures, pipes and outlets.
- 2.Cut edges, fit and scribe to walls and partition after flooring has been applied.

G. Edges Strips

- 1.Provide edging strips where flooring terminates at points higher at doorways where thresholds are provided.
- 2.Edges strip shall be extruded aluminum butt type and beveled at exposed edges.
- 3.The top surface of the metal strips shall be finished flush with the tiles.
- 4.Secure strips at the end and between at about 20cm. apart with screws.
- 5.Submit samples of metal strips for approval before application and installation.

H. Cleaning and Waxing

After the vinyl tiles and accessories are laid and set, it shall be cleaned with a cleaner as recommended by the manufacturer and coat of approved seal polish.

H. Protection

After the floor has been waxed, they shall be carefully protected against damage, either with heavy building paper or by keeping traffic off the floors until the area is ready for use.

CHAPTER VI

PLUMBING

PART 1 – GENERAL

SCOPE OF WORK

This Item shall consist of furnishing all materials, tools, equipment and fixtures required as shown on the Plans for the satisfactory performance of the entire plumbing system including installation in accordance with the latest edition of the National Plumbing Code, and this Specification.

PART 2 – PRODUCT

2.1 MATERIAL REQUIREMENTS

All piping materials, fixtures and appliances fitting accessories whether specifically mentioned or not but necessary to complete this Item shall be furnished and installed.

A. Plastic Pipes

1. Unless otherwise specified or shown on drawings all tube pipes to be use in this project shall be plastic or synthetic materials.

2. For rigid type of connections, the following shall be used: Polyvinyl Chloride (PVC); Chlorinated Polyvinyl Chloride (CPVC); Unplasticized Polyvinyl Chloride (uPVC); Acrylonitrile Butadiene Styrene (ABS); Polypropylene (PP) and **Polypropylene Random (PPR) pipes for plumbing lines.**
3. For flexible connections either of the following shall be used: Polyethylene (PE) and Polybutylene (PB)
4. The PE and PB tubes are in coil form available up to 150 meters long in coil form shall be used for underground water connections.
5. Plastic pipe shall be of quality made by reputable manufacturers free from defects, and shall be true, smooth and cylindrical, the inner and outer surfaces being nearly concentric as practicable.
6. They shall be in all aspect, sound and perfectly molded free from laps, pin holes or other reasonably square to their axes.
7. Pipes and fittings for sanitary and potable water lines as approved alternate shall be unplasticized Polyvinyl Chloride Pipes and fittings (uPVC).
8. Pipes and fittings shall be made of virgin materials conforming to specification requirements defined in ASTM D-2241 and PNS 65: 1986.
9. Fittings shall be molded type and designed for solvent cement joint connection for water lines and rubber O-ring seal joint for sanitary lines.

B. Plumbing Fixtures and Fittings

1. All fittings and trimmings for fixtures shall be chromium plated and polished brass unless otherwise approved.
2. Exposed traps and supply pipes for fixtures shall be connected to the roughing-in, piping system at the wall unless otherwise indicated on the Plans.
3. Built in fixtures shall be watertight with provision of water supply and drainage outlet, fittings and trap seal.

4. Unless otherwise specified, all plumbing fixtures shall be made of vitreous complete with fittings.
 - a. Water closet shall be vitreous china, free standing toilet combination, round front bottom outlet siphon vortex or wash-down bowl with extended rear self and closed coupled tank with cover complete with fittings and mounting accessories.
 - b. Lavatory shall be vitreous china, wall hung with rear overflow and cast in soap dishes, pocket hanger with integral china brackets, complete with twin faucets, supply pipes, p-trap and mounting accessories.
 - c. Where indicated on the Plans, the counter top model make and color shall be approved by the designing Architect.
 - d. Urinal shall be vitreous china, wall hung wash-out urinal with extended shields and integral flush spreader, concealed wall hanger pockets, 19 mm top spud complete with fitting and mounting accessories. Model make color shall be approved by the designing Architect.

C. Special Plumbing Fixtures

5. Kitchen sink shall be made of stainless self rimming, single compartment complete with supply fittings, strainer traps, dual control lever and other accessories.
6. Laboratory sink shall be made of cast iron metal with white porcelain finish with single compartment, flat rim edge, 75 x 53 cm complete with supply fittings, strainer, trap and other accessories.
7. Scrub-up sink shall be made of cast iron white porcelain finish with 3 compartment X-ray processing tank, drain plug, open sanding drain 19 mm inlet spud complete with stand and mounting accessories.
8. Built-in appliances such as urinal, lavatory and slope sink shall be installed as indicated on the Plans. Exposed surfaces to be tile wainscotings complete with fitting accessories required as practiced in this specialty trade.
9. Squat Bowl(s) shall be vitreous china, wash down with integral foot treads, pail flush type. Color, make and type to be approved by the designing Architect.

10. Grease Traps shall be made of cast bronze with detachable and mounting accessories.

D. Fire Protection System

1. Fire hose cabinets shall be locally available consisting of 38 mm diameter valve hose rack with 30

mmnipple rubber hose cable with square nozzle 38 mm diameter brass, chromium plated.
2. Fire Standpipe system shall consists of risers and hose valves. Standpipe shall be extra strong black iron.
3. Valves to be used shall be high grade cast bronze mounted with standing 79.40 kg. working pressure.
4. Fire extinguisher shall be portable, suitable for Class A, B,C, fires, mounted inside the cabinet. Cabinet shall be full flush mounting door with aluminum trim for glass plate.
5. Frame and box shall be made of gauge 14 galvanized iron sheets with white interior and red exterior baked enamel finish over the well prepared primer.
6. Cabinet shall be wall mounted and size to accommodate the defined components.
7. Yard hydrant where shown on the Plans shall match the Integrated Fire Department requirements. Outlet shall be single 63 mm diameter gate valves with chain connected caps.
8. Built in appliances such as urinal, lavatory and slope sink shall be installed as indicated on the Plans. Exposed surfaces to be tile wainscotings complete with fitting accessories required as practiced in this specialty trade.

PART 3 – EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

The Contractor before any installation work is started shall carefully examine the Plans and investigate actual structural and finishing work condition affecting all his work. Where actual condition necessities are arrangement of the approved pipe layout, the Contractor shall prepare Plan(s) of the proposed pipe layout for approval by the supervising Engineer.

A. Fire Standpipe System

Fire standpipe system shall consist of risers and hose valve. Standpipe shall be extra strong black iron.

Valves shall be of high grade cast bronze quality approved by the Underwriter' s specifications.

B. Valves and Hose Bibs

Valves shall be provided on all supplied fixture as herein specified.

- a. The cold water connections to the domestic hot water heaters shall be provided with gate valves and the return circulation connection shall have gate and check valve.
- b. All connection to domestic hot water heaters shall be equipped with unions between valve and tanks.
- c. Valve shall not be installed with its stem below the horizontal elevation. All valves shall be gate valves unless otherwise indicated on the Plans.
- d. Valves up to 50 mm diameter shall be threaded ends, rough bodies and finished trimmings, except those on chromium plated brass pipe.
- e. Valves 63 mm in diameter and larger shall have iron bodies, brass mounted and shall have either screws or flange ends.

- f. Hose bibs shall be made of brass with 12 mm inlet threads hexagonal shoulders and 19 mm male.

C. Fixtures, Equipment and Fastenings

- a. All fixtures and equipment shall be supported and fastened in a safe and satisfactory workmanship as practiced.
- b. All fixtures required to be wall mounted on concrete or concrete hollow block wall shall be fasten with brass expansion bolts.
- c. Expansion bolts shall be 6 mm diameter with 20 mm threads into solid concrete, fitted with tubing or sleeves of proper length to acquire extreme rigidity.
- d. Inserts shall be rigidly secured, anchored and properly concealed and flushed into the walls.
- e. Bolts and nuts shall be horizontally mounted and exposed. It shall be provided with washers and chromium plate finish.

D. Pipe Hangers, Inserts and Supports

- 1. Pipe hangers shall be wrought iron malleable iron pipe spaced not more than 1.50 meters apart for horizontal runs of pipe.
- 2. Chains, straps, perforated turn-buckles or other approved means of adjustment except the turn-buckles may be omitted for hangers on soil or waste lines or individual toilet rooms to maintain stacks when spaced does not permit.
- 3. Trapeze hangers may be used in lieu of separate hangers on pipe running parallel to and closed to each other.
- 4. Inserts shall be cast steel of the type to receive machine bolt or nut after installation. Insert permit adjustment of the bolts in one horizontal direction and shall be installed before the pouring of concrete.

5. Wrought iron clamps or collars to support vertical runs of pipe shall be spaced not more than 3.0 m. apart or as indicated on the Plan.

E. Plates and Flashing

- a. Plates to cover exposed pipes through floor finished, walls, or ceiling shall be fitted with chromium plated cast brass plates or chromium plated cast iron or steel plates on ferrous pipes.
- b. Plates shall be large enough to cover and close the hole around the area where pipes passes. It shall be properly installed to insure permanence.
- c. Roof areas penetrated by vent pipes shall be rendered water tight by lead sheet flashing and counter flashing. It shall extend at least 15 cm. above the pipe and 30 cm along the roof

F. Protection and Cleaning

- a. During installation of fixtures and accessories and until final acceptance, fixtures shall be protected with strippable plastic or other approved means to maintain fixtures in perfect conditions.
- b. All exposed metal surfaces shall be polished clean and free of grease, dirt or other foreign materials after the completion.
- c. Upon completion, thoroughly clean all fixtures and accessories to leave the work in a polished condition.

G. Inspection, Warranty Test and Disinfection

- a. All pipes, fittings, traps, fixtures, appurtenances and equipment of the plumbing and drainage system shall be inspected and approved by the supervising Engineer to assure compliance with all requirements of applicable Codes and Regulations referred to in this Specifications.

H. Drainage System Test

- a. The entire drainage and venting system shall have all the necessary openings which can be plugged to permit the entire system to be filled with water to the level of the highest stack vent above the roof.
- b. The system shall hold this water for a full 30 minutes during which time there shall be no drop greater than 10 mm.
- c. Where only a portion of the system is to be tested, the test shall be conducted in the same manner as described for the entire system.
- d. If and when the Architect or Engineer decides that an additional test is needed, such as air to smoke test on the drainage system, the Contactor shall perform such test without any additional cost.

I. Water Test on System

- a. Upon completion of the rough-in and before connecting fixtures, the entire cold water piping system shall be tested at a hydrostatic pressure 1-1/2 times the expected working pressure in the system during operation and remained tight and leaked proofed.
- b. Where piping system is to be concealed, the piping system shall be separately in manner similar to that described for the entire system and in the presence of the Engineer or his duly designated representative.

J. Defective Work

- a. All defective work, materials replaced and tested will be repeated until satisfactory performance is attained.
- b. Any material replaced for the satisfactory performance of the system made shall be at the expense of the Contractor.
- c. Caulking of screwed joints or holes will not be permitted.

K. Disinfection

- a. The entire distribution system shall be thoroughly flushed and treated with Chlorine before it is operated for human use.

- b. Disinfection materials shall be liquid Chlorine or Hypochlorite and shall be introduced in a manner approved as practiced for water distribution system.
- c. After contact period of not less than 16 hours, the heavily chlorinated water shall be flushed from the system with potable water.
- d. Valves for the water distribution system shall be opened and closed several times during the 16 hours Chlorination treatment period.

L. As-Built Drawings

- a. Upon completion of the work, the Contractor shall submit two sets of prints with all As-Built changes shown on the drawings in a neat workmanship manner.
- b. Such prints shall show changes or actual installation and conditions of the plumbing system in comparison with the original drawings.

CHAPTER VII

ELECTRICAL

PART 1 – GENERAL

1.1 SCOPE OF WORKS

The work under this Division consist of furnishings all materials, equipment, tools, labor and all other services necessary to complete and make ready for operation the Electrical Power and Lighting System described below and or indicated in the Electrical Plans in accordance with the latest edition of the Philippine Electrical Code and this Specifications and General Conditions of the Contract.

1.2 CONSTRUCTION REQUIREMENTS

1. Furnishing and installation of underground service entrance, conduits and conductors, and all items required by local utility power company' s policy, rules and regulations.
2. Furnishing and installation of panel boards at location indicated on the plan and electrical riser layout, including all accessories required.
3. Furnishing and installation of feeder and branch circuit conductors with the necessary conduits, approved type of fittings and devices as indicated in the electrical plans.
4. Furnishing and installation of all types of utilization devices, outlets and walls witches with properly installed cover plate.
5. Furnishing of all lighting fixtures, conduits, including service entrance duct, terminal cabinet and utility boxes.

1.3 CODES, REGULATIONS AND STANDARDS

1. The installation and equipment shall conform to good engineering practices and in particular comply with the requirements laid down in the following documents or its equivalent which are mandatory and modified only by specific agreement.

Philippine Electrical Code -----
----- PEC Underwriter' s Laboratory, Inc. -
-----UL National Electrical
Manufacturers Association ----- NEMA
Local Utility Power Company -----
-----LUPC

2. In addition to the requirements of these Codes and the Utility Power Company' s requirements, local government regulations and suppliers Specifications if any, shall be followed.

1.4 DRAWINGS AND SPECIFICATIONS

1. The drawings and Specifications are meant to be complementary to each other, and what is called for by one shall be binding as if called for both.
2. Any apparent conflict between the drawings and specifications, and any controversial or unclear points in either shall be preferred to the supervising Engineer for final interpretation and decisions.
3. On one copy of the plans, have a record showing all deviations that happened during the construction.
4. Upon completion of work as described herein, the Contractor at his own expense shall furnish the

Owner 6 copies of the “ As Built” plan for future references and maintenance purposes.

1.5 CORRELATION OF WORK

1. The Electrical Contractor shall confer with the General Contractor and Architect to determine how and where his work fits with that of other crafts, after familiarizing himself with the plans and specifications.
2. This shall be done at the beginning of construction. Should there be any existing doubts at any point, ruling shall be secured from the supervising Architect or Engineer who shall be given time to inspect the work covering this point and to prepare a detail in the form of drawings and written instructions as required.

1.6 PERMITS AND INSPECTION

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

1.7 EXAMINATION OF PREMISES

1. Prospective bidder is required to examine the architectural, structural, and electrical plans of the project, to visit the site and carefully take note of all the conditions thereat to have personal informed under which the electrical work is to be done.
2. No allowance will subsequently be made in his behalf of any error on his part. He will be deemed to have done this before submitting his proposal and no subsequent claims on the ground of inadequate or inaccurate information will be entertained.

1.8 LAYOUT OF WORK

1. Electrical system layout indicated on the drawings is generally diagrammatic and the location of outlets, devices, apparatus and equipment are only approximate.
2. The exact routing of conduits, location of outlets, devices, apparatus and equipment shall be governed by structural and architectural conditions and limitations.
3. For the exact location, consult the supervising Engineer. This does not mean to permit redesigning of the systems. All outlets are to be interconnected as indicated in the drawings.
4. The Procuring Entity reserves the right to make any reasonable change in location of outlet and equipment prior to rough-in, without involving additional expense.
5. The Contractor shall be responsible and pay charges for cutting and patching for piping lines where sleeves or slots were not installed or where incorrectly located.

PART 2 – PRODUCT

2.1 MATERIALS AND WORKMANSHIP

1. All materials to be installed shall be unused, brand new and shall conform to the standards of the Underwriters Laboratories, Inc. in every where such a standard has been established for the particular type of materials to be used.
2. Only skilled workmen using proper tools and equipment shall be employed during the entire course of installation work.
3. All workmanship shall be of the best practices of the trade involved. The same job site during the entire course of the job.

2.2 PANELBOARDS

1. The Contractor shall furnish and install the necessary panel board multi-breaker type including the breakers as indicated in the drawings.
2. Circuit breakers shall be tropical of the magnetic thermal type with ratings and number of poles as indicated in the drawings.
3. All panel boards to be used shall be flush mounted when located in areas that are visible to the general public and may be surface mounted when located in machine room or areas where they are not visible to the public.
4. All panel boards shall be set plumb and symmetrical with the surrounding objects. Panel boards shall be installed in a perfectly fit cabinet of appropriate size provided with a stop in-door trim and good quality cylinder lock.

2.3 CONDUIT WORK

1. Standard PVC conduit pipe system is required for this project.
2. Conduit runs shall be concealed in drop ceiling and or embedded in concrete structure where concealment is not possible.
3. No conduit of less than 15 mm normal diameter shall be installed for this project. Two or more conduits shall not be installed in lieu of a large size.
4. Conduit run shall be continuous from outlet and no running thread shall be in any conduit run. Conduit shall be cut square and properly reamed.
5. All joints shall be screwed enter knockouts of conduit boxes, pull boxes, panels and cabinet squarely. Lock-nuts shall be screwed tight to insure continuity of raceway grounding.
6. Bonds and offset shall be avoided where possible, but where necessary it shall be made with approved conduit bending apparatus.
7. Conduits which have been deformed or crushed in any manner should not be installed.
8. The Contractor shall plug with lead or closed with approved pipe caps the ends of all conduits which are to be left empty within the cabinets and conduit boxes so as to prevent the entrance of white ants and dirt within the conduit system.
9. This lead or cap shall be placed that can be easily removed when so desired and at the same serve the purpose intended.
10. Pull wire shall be inserted in the empty ducts before they are closed with lead or caps and shall be left therein for future use.
11. When not shown on the plans, conduit sizes shall correspond to the conduit sizes on tables of the Philippine Electrical Code latest edition.

2.4 FEEDERS AND FEEDER DUCTS

1. Feeder shall be laid out in accordance with the on-line diagram shown in the drawings.

2. Unless otherwise specified or shown on the drawings, Type THW wires shall be used for feeder runs. The wires and conduit shown in the drawings shall be the minimum size to be used for feeder runs.

2.5 WIRING METHODS

1. Wiring for all systems shall be type THW or TW conductors using plastic conduit pipes. Other types of conductor shall be as indicated in the drawings.
2. Conduit shall be embedded in columns, walls and toppings of floors slabs to allow flush connections and lighting system which may be exposed between joints in case a drop ceiling is installed.
3. Proper fittings shall be provided at ends of conduits. Wiring installations through wooden double partitions shall be in standard PVC conduits, and in all cases, the wiring installation shall be concealed from view.
4. All conduit and conduit fittings shall be PVC and shall conform to the U.S. Underwriters Laboratories Inc. Standard and Codes.
5. The minimum size of conduit to be used shall be 13 mm diameter. Sizes larger than 13 mm diameter shall be indicated in the drawings.
6. Smallest size of conductor to be used shall be 2.0 mm², type TW or THW. TW wire shall be indicated in the drawings.
7. Circuit homeruns for lighting shall be 3.5 mm² and 5.5 mm² for the power or otherwise indicated on the plans.
8. All splice, tape and junctions for all systems using conductors up to 14mm² shall be accomplished by using electrical friction or rubber types.
9. Proper type of connections shall be employed to accommodate all splices and solder less type terminals to be used for connection to Busbar.
10. Taps and splices shall be properly protected with both plastic and friction electrical tapes to proper insulation and protection for 600 volts.
11. Wiring from ceiling outlets to lighting fixtures recessed in dropped ceilings shall be done using type TW conductors in RS or PVC conduits.

12. Proper size of boxes shall be used for switch and outlet receptacles.
13. Necessary fittings such as bushing, locknuts and anti-short fiber bushing shall be used at proper places so required.
14. When not shown on the Plans, conduit sizes shall correspond to the conduit sizes as prescribed in the Philippines Electrical Code table for “ Size of Conduit Pipes”

2.8 OUTLETS

1. All boxes for outlets and switches shall be PVC or galvanized iron approved products of reputable manufacturers.
2. Enamel coating used in lieu of zinc coating shall not be permitted.
3. All ceiling outlet boxes intended for lighting outlets shall be of the 10 cm octagonal box. Larger boxes when required shall be 5.3 cm deep.
4. Convenience and wall switch outlet boxes shall be of the 10 cm by 5.3 cm rectangular deep flush type or 100 square cm junction box with gang raised cover as required to accommodate the wires therein.
5. All junction boxes, pull boxes and blank boxes shall be fitted with standard flat metal or plastic box cover.
6. All boxes including junction and pull boxes shall be of sufficient size to provide free space for all conductors enclosed in the box, in addition to the fittings such as switch mechanism and receptacles that may be placed therein.

2.10 GROUNDING INSTALLATION

1. The Contractor shall furnish and install all ground cables, connection ground rods and all other materials required to provide a permanent effective grounding system.
2. Grounding, in general, shall conform with the provisions of the National Electrical Code and as recommended by the equipment manufacturer.
3. All enclosure for electrical equipment regardless of voltage shall be grounded, including metal frames of switchboard, motors, generators and steel poles. Each shall be grounded in a separate grounding system.
4. Grounding cables shall be bare, copper of suitable size and of the approved type. Ground rods shall be copper clad steel with diameter of 16 mm and length of 2.0 m.
5. Ground clamps shall be of high copper alloy bronze with minimum thickness of 4.7 mm hardware made from silicon bronze.
6. The clamps shall be of a shape and size to fit the points of application and type of connection to be made from cable rod, pipe and curved or flat surfaces. Connectors shall be suitable for direct burial without danger of corrosion.

2.11 TEST AND GUARANTEE

1. The Contractor shall furnish all apparatus to be used in making tests of all wiring system for shorts and grounds after the electrical work is completed.
2. The Contractor guarantees all work installed under the Contractor to be free from all defects for a period of one year acceptance of the works.
3. The Contractor also agree to repair and make good at his own expense any and all defects which may develop in his work during the time if said defects arise due to poor workmanship.

2.12 POWER LOAD CENTER

This Item shall consist of furnishing and installation of the power load center unit substation or low voltage switch-gear and distribution panel boards at the location shown on the Plans complete with transformer, circuit breakers, cabinets and all accessories, completely wired and ready for service.

A. Material Requirements

All materials shall be brand new and shall be of the approved type. It shall conform with the requirements of the Philippine Electrical Code and shall bear the Philippine Standard Agency (PSA) mark.

B. Power Load Center Unit Substation

The Contractor shall furnish and install an indoor type power load center unit substation at the location shown on the approved Plans if required. It shall be totally metal enclosed, dead front and shall consist of the following coordinated component parts.

High voltage Primary incoming line section consisting of the following parts and related accessories.

1. One air filled Interrupter Switch, 2-position (open-close) installed in a suitable air filled metal enclosure and shall have sufficient interrupting capacity to carry the electrical load.

It shall be provided with key interlock with the cubicle for the power fuses to prevent access to the fuses unless the switch is open.

2. Three (3) power fuses mounted in separate compartments within the switch housing and accessible by hinged door.
3. One set of high voltage potheads or 3-conductor cable or three single conductor cables.
4. Lighting arresters shall be installed at the high voltage cubicle if required.

Note: Item 1 and 2 could be substituted with a power circuit breaker with the correct rating and capacity. **C. Transformer Section**

The Transformer section shall consist of a power transformer with ratings and capacities as shown on the Plans.

1. It shall be oil liquid filled non-flammable type and designed on accordance with the latest applicable standards.
2. The transformer shall be provided with four (4) approximately 2.5% rated KVA taps on the primary winding in most cases one above and 3 below rated primary voltage to be changed by means of externally gang-operated manual tap changer only when the transformer is de-energized. Tap changing under load is acceptable if transformer has been so designed.
3. The following accessories shall be provided with the transformer, namely: sampling device, filling connection, oil liquid level gauge, ground pad, top filter press connection, lifting lugs, diagrammatic nameplate, relief valve, thermometer and other necessary related accessories.
4. The high voltage and low voltage bushing and transition flange shall be properly coordinated to field connection to the incoming line section and low voltage switchboard section, respectively.

C. The Low Voltage Switchboard Section

The low voltage switchboard shall be standard modular unitized units, metal built, dead front, safety type construction and shall consist of the following:

1. **Switchboard Housing** – shall be heavy gauge steel sheet, dead front type gray enamel finish complete with frame supports, steel bracings, steel sheet panel board, removable rear plates, copper busbars, and all other necessary accessories to insure sufficient mechanical strength and safety. It shall be provided with grounding bolts and clamps.

2. **Secondary metering sections-** shall consist of one ammeter AC, indicating type, one voltmeter, AC, indicating type; one ammeter transfer switch for 3-phase; one voltmeter transfer switch for 3-phase; and current transformers of suitable rating and capacity.

The above instruments shall be installed in one compartment above the main breaker and shall be complete with all necessary accessories completely wired; ready for use.

3. **Main Circuit Breaker-** The main circuit breaker shall be draw-out type, manually or electrically operated as required with ratings and capacity as shown on the Plans.

The main breaker shall include insulation control switch if electrically operated, manual trip button, magnetic tripping devices, adjustable time over current protection and instantaneous short circuit trip and all necessary accessories to insure safe and efficient operation.

4. **Feeder Circuit Breakers-** There shall be as many feeder breakers as are shown on the single line diagram or schematic riser diagram and schedule of loads and computations on the Plans.

- a. The circuit shall be draw out or molded case as required. The circuit breakers shall each have sufficient interrupting capacity and shall be manually operated complete with trip devices and all necessary accessories to insure safe and sufficient operation.
- b. The number, ratings, capacities of the feeder branch circuit breakers shall be as shown on the approved plan.
- c. Circuit breakers shall each be of the indicating type, providing “ ON” and “ OFF” and “ TRIP” position of the operating handles and shall each be provided with nameplate for branch circuit designation.
- d. Circuit breaker shall be so designed that an overload or short on one pole automatically causes all poles to open.

5. **Low Voltage Switchgear-** (For projects requiring low voltage switchgear only). The Contractor shall furnish and install low-voltage switchgear at the location show on the plans. It shall be metal-clad, dead front, free standing, safety construction

and shall have copper busbars of sufficient size, braced to resist allowable root mean square (RMS) symmetrical short circuit stresses, and all necessary accessories.

The low-voltage switchgear shall consist of the switchgear housing, secondary metering, main breaker and feeder branch circuit. Breakers and all necessary accessories, completely wired, ready for service.

- 6. Grounding System-** All non current carrying metallic parts like conduits, cabinets and equipment frames shall be properly grounded in accordance with the Philippine Electrical Code, latest edition.

The size of the ground rods and ground wires shall be as shown on the approved plan. The ground resistance shall not be more than 5 Ohms.

- 7. Panel Board and Cabinets-** shall conform to the schedule of panel boards as shown on the approved plan with respect to supply characteristics, rating of main lugs or main circuit breaker, number and ratings and capacities of branch circuit breakers.

- a. Panel board shall consist of a factory completed dead front assembly amounted in an enclosing flush type cabinet consisting of code gauge galvanized sheet steel box with trim and door.
- b. Each door shall be provided with catch lock and two (2) keys.
- c. Panel board shall be provided with directories and shall be printed to indicate load served by each circuit.
- d. Panel board cabinets and trim shall be suitable for the type of mounting shown on the approved plan. The inside and outside of panel board cabinets and trims shall be factory painted with one rust proofing primer coat and two finish coats of pearl gray enamel paint.
- e. The main and branch circuit breakers for panel boards shall have the rating, capacity and number of poles as shown on the approval plan.

- f. Breaker shall be thermal magnetic type. Multiple breaker shall be of the common trip type having a single operating handle.
- g. For 50-ampere breaker or less, it may consist of single pole breaker permanently assembled at the factory into a multi-pole unit.

PART 3 – EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

The Contractor shall install the Power Load Center Unit Sub-station or Low Voltage Switchgear and Panel boards at the locations shown on the approved Plan.

Standard panels and cabinets shall be used and assembled on the job. All panels shall be of dead front construction furnished with trims for flush or surface mounting as required.

CHAPTER VIII

MECHANICAL

A. AUTOMATIC WATER SPRINKLER SCOPE OF WORK

This Item shall consist of furnishing and installation of Automatic Water Sprinkler System, inclusive of all pipings and pipe fittings connections, valves, controls, electrical wiring connection and all other accessories ready for service in accordance with the Plans and Specifications.

A.1 MATERIAL REQUIREMENTS

- A. Fire Pump

1. The type, size, capacity and quantify and power characteristics shall be specified or as shown on the Plans.
2. The fire pump shall be diesel engine driven and capable of delivering a minimum of residual pressure of 103 kPa at the top-most and remotest sprinkler.
3. The pump unit shall be supplied with relief valve, gate valve, suction gauge and discharge pressure gauge. The diesel engine shall be designed specifically intended for an automatic water sprinkler protection system.
4. A drop in system pressure due to the operation of one sprinkler pressure shall triggered a series of automatic operations that will result in the instantaneous operation of the engine to drive the fire pump with the aid of a battery automatic controller.
5. The required accessories are:
 - a. Tachnometer
 - b. Oil pressure gauge
 - c. Temperature gauge and control panel
6. A diesel fuel day tank shall be provided to supply the engine for a minimum of two (2) hours running time.
7. The fuel storage tank shall be asphalt coated with necessary pipings and fittings for connection.

B. Sprinkler Head

1. Type-spray unit, pendant and upright unit
2. Flow capacity, 83 LPM per head
3. Pressure rating

4. Residual pressure- 103 kPa minimum
5. Maximum pressure- 1035 kPa
6. Temperature rating- fusing at 57.5° C to 74° C
7. Finish- chrome-pendant-chrome or brass upright
8. Pipe Thread- 13 mm nominal
9. Stock of extra heads and tools required Pendant and upright:
 - a. 6 pcs for 300 sprinkler

12 pcs for 300 to 1000 sprinkler

24 pcs for 1000 sprinkler above
 - b. Sprinkler tongs- 2pcs
 - c. Sprinklerwrench- 2 pcs

C. Alarm Check Valve and Fire Alarm System

1. The alarm assembly shall be constructed and installed that any flow of water from the sprinkler system equal to or greater than that from the single automatic head shall result in an audible and visual signal in the vicinity of the building.
2. The alarm apparatus shall be substantially supported and so located and installed that all parts shall be readily accessible for inspection, removal and repair.

3. The actual water flow, through the use of a test connection, shall be employed to test the operation of the sprinkler alarm units as a whole.
4. An approved identification sign shall be installed near the outdoor alarm device in a conspicuous position.

D. Alarm and Supervisory System

The alarm and supervisory system of the automatic water sprinkler shall include the monitoring of the following;

1. Water flow switch of each floor of the building.
2. Fire pump and jockey pump running condition and power supplies.
3. Level of water in the reservoir
4. Control valves.

The water flow switches on each floor of the building shall be connected to the fire alarm system and annunciator in such a manner that the operation of any sprinkler system will activate the fire alarm system, with the location of the operating water flow switch simultaneously indicated in the annunciator panel.

E. Pipes and Fittings

1. Pipes shall be Black Iron Schedule 40
2. Screw fittings shall be used for inside piping.
3. Welding and torch cutting shall not be allowed.
4. Piping shall be painted with metal primer and red enamel paint.

F. Siamese Twin

The siaseme twin shall be 64 x 64 x 102 mm, 90° C female coupling national standard thread, swivel-type,

with protective coupling cap and joint lug.

G. Pipe Hangers

Pipe hangers shall be steel bars 3 mm minimum thickness, with corrosion protection.

1. *Anchorage in concrete*- expansion shield should preferably be used in a horizontal position in the side of concrete beams.
2. *Expansion shield in vertical position*. When pipes 100 mm and larger are supported entirely by expansion shield in the vertical position, the supports shall be spaced not more than 3.0 meters apart.
3. For pipe running through concrete beams use sleeves at least two (2) sizes larger than the piping.

A.2 CONSTRUCTION REQUIREMENTS

A. Acceptance Tests

1. System operation and maintenance chart shall be submitted to the Owner upon completion of the Contract. This shall include the locations of control valves and care of the new equipment.
2. Marked instructions and identification sign boards shall be made of No. 14 gauge black iron sheet with baked enamel finish paint and letter instructions are shown on Plans.
3. Sign boards shall be mounted on the equipment or wall nearest the equipment for easy identification and reading. Paints shall be basically gloss fire red and white.
4. Additional sign boards as may be required and not specified shall be furnished at no extra cost.

A. Conduct of Tests

1. Test shall be by the Sprinkler System conducted in the presence of an inspector or authority having jurisdiction.
2. Flushing of Underground Connections to remove foreign materials which may have entered the piping during installation of same as required before sprinkler piping is connected.
3. Hydraulic Test shall be conducted as follows:
 - a. **The Pressure-** All systems, including piping shall be tested hydrostatically at not less than 1378 kPa pressure for two (2) hours, or at 345 kPa in excess of the maximum static pressure when the maximum static pressure is in excess of 1033 kPa.
 - b. **Operating Test-** All control valves shall be fully closed and opened under water pressure to insure proper operation. Use clean, non corrosive water.
 - c. *Fire Department Connection-* Piping between the check valve in the fire department inlet pipe and the outside connection shall be tested the same as the balance of the system.
4. *Tests of Drainage Facilities-* Test of the drainage facilities shall be made while the control valve is wide open. The main drain valve shall be opened and remain open until the system pressure stabilizes.
5. *Test Certificate-* Upon completion of work, inspection and tests made by the Contractor and witnessed by the Procuring Entity' s representative. A test certificate shall be filled out and signed by both representatives.

A.3 MAINTENANCE SERVICE

1. The Contractor shall provide free of charge, maintenance service of the system for a period of at least one year reckoned from the date of acceptance of the work.

2. Upon completion of the work and after all tests, the services of one or more qualified engineers shall be provided by the Contractor for a period of not less than 5 working days to instruct and train the representative of the Owner in the operation and maintenance of the fire protection system.

Guarantee and Service

All equipment, materials, and workmanship shall be guaranteed for a period of one (1) year from the date of acceptance at any time within the period of guarantee and upon notification, the Contractor shall repair and rectify the deficiencies, including replacement of parts or entire units.

Nothing Follows

Prepared by:

ENGR. SAMUEL S. SALES

Civil Engineer

Reviewed by:

ENGR. JUAN S. NARVATO

SST-III

Section VIII- DRAWINGS

(Drawings are on a separate file that can be downloaded from the school's website www.brc.pshs.edu.ph)

Section VIII. Bill of Quantities



Republic of the Philippines
Department of Science and Technology
Philippine Science High School System
PHILIPPINE SCIENCE HIGH SCHOOL – BICOL REGION CAMPUS
General Services Management Unit (Engineering)
Tagongtong, Goa, Camarines Sur 4422
Telefax: (054) 453-2048 <http://www.brc.pshs.edu.ph>



Pursuit of Truth



Passion for Excellence



Commitment to Service

SUMMARY FOR BILL OF QUANTITIES

Project Title : COMPLETION OF ACADEMIC BUILDING III

Location : Philippine Science High School-Bicol Region
Campus

Tagongtong, Goa, Camarines Sur 4422

Bidder :

ITEM NO.	DESCRIPTION	TOTAL COST
1	General Requirements	
2	Tile Works	
3	Sun buffer	
4	Specialty Works	
5	Window Grilles and Gates	
6	Glass Partition (at Library)	
7	Painting works	
8	Plumbing Works	
9	Electrical Works	
10	Network Integration	
11	Fire Protection	
	GRAND TOTAL COST	
	Amount in Words:	

Prepared
by:

Name of Bidder

Date: _____



BILL OF QUANTITIES

Project Title : COMPLETION OF ACADEMIC BUILDING III

Location : Philippine Science High School-Bicol Region Campus

Tagongtong, Goa, Camarines Sur 4422

Bidder :

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL COST
I. GENERAL REQUIREMENTS					
	Mobilization and Demobilization	1	lot		
	Building Permits/Licenses includes Fire, Water, Electrical	1	lot		
	Safety and Health	1	lot		
	Bonds Insurances	1	lot		
	Temporary Facilities/Field Office / Conference Room	1	lot		
	Construction Fence	1	lot		
	COA Signage	1	lot		
				Sub-total for General Requirements	
II. TILE WORKS		1,103.28	sq. m.		
	Tile works for all untiled flooring				
	0.60m x 0.60m Ceramic floor tiles	3372	pcs		
	Tile adhesive	580	bags		
	ABC grout (5kg bag)	123	bags		
	Pozzolan cement (for minor corrections)	27	bags		
	Washed sand (for minor corrections)	3	cu. m.		

	Chipping of temporary concrete topping	1103.28	sq. m.		
				Sub-total for Tile Works	
III. SUN BUFFER					
	1.5mm thk. 2"x6"x6m Tubular Steel	96.00	pcs		
	Steel Plate 4 x 8 x 6mm thk	2.00	pcs		
	Angle bar, 1½ x 1½ x ¼	5.00	pcs		
	Welding rod	73.00	kgs		
	Primer oxide	14.00	gals		
	Quick drying enamel	14.00	gals		
	Miscellaneous/Consumables	1.00	lot		
				Sub-total for Sun Buffer	
IV. SPECIALTY WORKS					
	Soldering Table, 2 sets				
	2 x 2 Steel tubular	4	pcs		
	1 x 1 Steel tubular	3	pcs		
	1/4" x 2" Flat bar	2	pcs		
	Welding rod	3	kgs		
	0.60m x 0.60m Ceramic tiles, black	4	pcs		
	Cement backer board (fiber cement board)	2	pcs		
	¾" thick Marine plywood	2	pcs		
	Tile Adhesive, 25 kg. bag	1	bag		
	Miscellaneous/Consumables	1	lot		
	Laptop Tables, 10 sets				
	2 x 2 Steel Tubular	27	pcs		
	1 x 1 Steel Tubular	9	pcs		
	MDF Board	8	pcs		
	Welding rod	15	lot		
	Painting and Consumables	1	lot		
	DMT Room Cabinets, 4 sets				
	¾" thk Marine Plywood	10	pcs		
	1 x 2 x 10', S4S Good Lumber	22	pcs		

	Trims and accessories	1	lot		
	Painting and Consumables	1	lot		
	Library Bookshelves, 4 sets				
	¾" thk Marine Plywood	12	pcs		
	1 x 2 x 10', S4S Good Lumber	45	pcs		
	Trims and accessories	1	lot		
	Painting and Consumables	1	lot		
				Sub-total for Specialty Works	
V. WINDOW GRILLES AND GATES					
	1"x1" Steel Tubular	90	pcs		
	2" x 2" Steel Tubular	18	pcs		
	2" x 6" Steel Tubular	6	pcs		
	1/2" Square Bar	21	pcs		
	2" - 1/4 Flat Bar	30	pcs		
	Welding Rod	30	kgs		
	Primer Oxide	16	gals		
	Quick drying enamel	16	gals		
	Paint Thinner	12	gal		
	Miscellaneous/Consumables	1	lot		
				Sub-total for Grilles and Gates	
VI. GLASS AND DRY WALL PARTITION (at Library)					
	D - 1 1.80m x 2.025m Double-Swing Glass door with 1/2" thick tempered glass	3.63	sq.m		
	1/2" Tempered Fixed Glass on Alumnum Top and Bottom Frame	16.305	sq.m		
	2" x 3" x 3m metal studs	47	pcs		
	1.2m x 2.4m x 6mm Hardieflex Fiber Cement Board	30	pcs		
	0.90m x 2.10m Flush door with 2 x 6 Door jambs	1	set		
	Door accesories	1	lot		
	Pan Head Framing Screw (100 pcs per pack)	4	packs		
	Fine thread drywall screws (100 pcs per pack)	8	packs		
	Concrete Hex Lag Screw (10 pcs per pack)	9	packs		
	Drywall Joint Tape	1	pc		

	Skim coat (25 kg/ bag)	6	bags		
	Flat Latex	6	gal		
	Gloss Latex	6	gal		
	Acricolor (Raw Sienna)	2	ltrs		
	Acricolor (Raw Sienna)	2	ltrs		
	#120 Sandpaper	20	pcs		
	4" Paint Brush	2	pcs		
	Roller brush # 9 w/ tray	2	pcs		
	Consumables	1	lot		
				Sub-total for Glass Partition	
VII. PAINTING WORKS					
	Painting Restoration Works for Affected Areas				
	Dv 5-500Lt Topcoat-Flat (White)	12	gal		
	Dv 5-70 Lt-Reducer	3	gal		
	Sr-100 Sun & Rain White	15	gal		
	Sr-100 Sun & Rain Colored	15	gal		
	Dv 1360 Interior Primer & Sealer	5	gal		
	Dv -1000 Prolux Glazing Putty (Full Putty)	6	gal		
	Dv 600 Semi Gloss Enamel	18	gal		
	Dv 40 Paint Thinner	6	gal		
	Acricolor (Raw Sienna)	8	ltrs		
	#120 Sandpaper	50	pcs		
	4" Paint Brush	4	pcs		
	Roller brush # 9 w/ tray	6	pcs		
	Consumables	1	lot		
				Sub-total for Painting Works	
IX. PLUMBING WORKS					
	Bestank Stainless Water Tank, 2000 liters	1	unit		
	GI Pipe 1"Ø	3	pcs		
	PPR Pipe 1"Ø	3	pcs		
	1" Union Patente GI	2	pcs		
	1"Ø Gate valve	1	pc		
	1"Ø Check valve	1	pc		
	Float Switch	1	set		
	Steel Framing of Storage Tank	1	lot		

	Miscellaneous fittings/Consumables	1	lot		
				Sub-total for Plumbing Works	
X. ELECTRICAL WORKS					
	Roughing-ins (All necessary fittings, supports and other accessories already included from straight pipes / wireways)				
	Panel Board, 8 Branches, 60 AT Main, (Bolt-on Type, NEMA 1, Flushed Type) Branches: 4 - 30AT	1.00	unit		
	Panel Board, 8 Branches, 40 AT Main, (Bolt-on Type, NEMA 1, Flushed Type) Branches: 1 - 30AT 1 - 20AT 3 - 15AT	1.00	unit		
	Panel Board, 8 Branches, 40 AT Main, (Bolt-on Type, NEMA 1, Flushed Type) Branches: 1 - 30AT 3 - 15AT	1.00	unit		
	Aircon Socket	4.00	pcs		
	2.0 mm ² THHN Cu	4.00	box		
	3.5 mm ² THHN Cu	9.00	box		
	5.5 mm ² THHN Cu	3.00	box		
	8.0 mm ² THHN Cu	3.00	box		
	14.0 mm ² THHN Cu	1.00	box		
	Convenience Outlet	4.00	pcs		
	Utility Box, Ga 16, 102 x 51	16.00	pcs		
	Junction Box 4"x4"	48.00	pcs		
	Splicing Box 8"x8"	9.00	pcs		
	Electrical Tape	15.00	pcs		
	Lag Screw 1/2"x1/8"	200.00	pcs		
	Tux Screw	250.00	pcs		
	Ground Rod	1.00	pcs		
	PVC PipeS Ø including Fittings	1.00	lot		
	Plastic Moulding	150.00	pcs		
	Ceiling fans	48	sets		
	Testing and Commissioning	1	lot		

				Sub-total for Electrical Works	
X. NETWORK INTEGRATION					
X.1	CCTV CAMERAS (Hikvision)				
	Includes integration and installation of cameras, conduit pipes, data cabinet and wirings.				
X.1.1	Ground Floor, 1080p bullet cameras	12	pcs		
	Second Floor, 1080p bullet cameras	11	pcs		
	Third Floor, 1080p bullet cameras	11	pcs		
	Cat 6 Cable	6	boxes		
	POE Switch 24 Port 1U	2	pcs		
	NVR 32 Channel with 4 pcs 4TB Hard disks	2	pcs		
	½"Ø PBC conduit	50	pcs		
	½" Clamp	20	pcs		
	Elbow, 45 degrees	10	pcs		
	Bostick adhesive	10	pcs		
	7 ft Data Cabinet with Accessories (data Center	1	pcs		
	Installation, Integration and Testing Cost	1	lot		
			Sub-total for CCTV Cameras		
X.2	INFOBOARD				
	Includes integration and installation of INFOBOARD, conduit pipes, data cabinets, and wirings				
X.2.1	LED TV, 65 inches	1	pc.		
X.2.2	CAT 6 cable	1	boxes		
X.2.3	Bright Sign Media Player	1	pc		
X.2.4	½"Ø PBC conduit	20	pcs		
X.2.5	½" Clamp	20	pcs		
X.2.6	Elbow, 45 degrees	10	pcs		
X.2.7	Bostick adhesive	10	pcs		
X.2.8	Installation and Testing Cost	1	lot		
				Sub-total for InfoBoard	
X.3	NETWORK TIME DISPLAY (Masterclock)				
X.3.1	Includes integration and installation of DIGITAL CLOCK, conduit pipes, and wirings				
	Network Time Display	1	pc		
	CAT 6 cable	1	box		
	½"Ø PBC conduit	25	pcs		
	½" Clamp	20	pcs		

	Elbow, 45 degrees	10	pcs		
	Bostick adhesive	10	pcs		
	Installation, integration and Testing Cost	1	lot		
				Sub-toal for Network Time Display	
X.4	SOUND SYSTEM				
	RCF 12" ACTIVE 800watts ART312	2	units		
	soundcraft signature 10	1	unit		
	Speaker, Heavy Duty Stand	2	units		
	SHURE SM58 CARDIOID DYNAMIC VOCAL MICROPHONE	1	unit		
	10M SPEAKER WIRE XLR M/F X2	2	sets		
				Sub-total for Sound System	
				Total Cost for Network Integration	
XI. FIRE PROTECTION SYSTEM					
A	PIPING SYSTEM, BLACK IRON PIPE SCHED 40				
	B.I. Pipen25mmØ x 6.0m (schedule 40)	110	lengths		
	B.I. Pipen38mmØ x 6.0m (schedule 40)	4	lengths		
	B.I. Pipen50mmØ x 6.0m (schedule 40)	2	lengths		
	B.I. Pipen100mmØ x 6.0m (schedule 40)	25	lengths		
	B.I. Pipen150mmØ x 6.0m (schedule 40)	1	lengths		
B	B.I. FITTINGS (schedule 40)				
	Bell Reducer, 1 x ½	244	pcs		
	Tee 25mmØ	244	pcs		
	Tee 38mmØ	25	pcs		
	Tee 25mmØ x 25mmØ	200	pcs		
	Elbow 25mmØ x 90 degrees	100	pcs		
	Blind Flange, 100mmØ	6	pcs		
	Coupling Reducer, 38mmØ x 25mmØ	8	pcs		
	Slip on Flange, 100mmØ	5	pcs		
C.	BRACKETS, LOOP HANGERS, SWAY BRACES and SUPPORTS	1	lot		
D.	SPRINKLER HEADS, VIKING BRAND UL/FM				

	1" viking Brand Sprinkler Heads, Standard Response, ½" npt, ½" Orifice, Bulb Type, Chrome Finished, UL/FM Approved, Made in USA				
	Pendent 155F w/ Recess Type Escutcheon	244	pcs		
E.	FIRE HOSE CABINET w/ COMPLETE ACCESSORIES	3	pcs		
F. GENERAL REQUIREMENTS	FIRE DEPARTMENT CONNECTION				
	2-Way FDC (wet) 65mm x 65mm x 100mm	1	set		
	Swing Check Valve, 100mmØ	1	pc		
G	FLOOR CONTROL VALVES				
	OS & Y Gate Valve, 100mmØ	3	pcs		
	Supervisory Switch, 100mmØ	3	pcs		
	Water Flow Switch, 100mmØ	3	pcs		
	Pressure Gauge	3	pcs		
	Sight Glass 25mmØ	3	pcs		
	Bal Valve, 25mmØ	3	pcs		
	Bal Valve, 32mmØ	3	pcs		
	Fire Hose Valve 65mmØ w/ Cap and Chain	3	pcs		
H	Consumables and Miscellaneous Items including Chipping of Concrete, Repair & Restoration Works, Testing & Commissioning	1	lot		
I	Painting Works and Identification	1	lot		
				Total Cost for Fire Protection System	
	GRAND TOTAL COST				

Amount in Words:

Prepared by:

Name of Bidder

Date: _____

Section IX. Bidding Forms

Bid Form

Date: _____

IB¹ No: _____

To: ***PHILIPPINE SCIENCE HIGH SCHOOL – BICOL REGION CAMPUS***

Address: *Tagongtong, Goa, Camarines Sur*

We, the undersigned, declare that:

- (a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the Contract ***Site Development under Design and Build Scheme;***
- (b) We offer to execute the Works for this Contract in accordance with the Bid and Bid Data Sheet, General and Special Conditions of Contract accompanying this Bid;

The total price of our Bid, excluding any discounts offered below is: *[insert information];*

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

- (c) Our Bid shall be valid for a period of *[insert number]* days from the date fixed for the Bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) 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;
- (e) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from the following eligible countries: *[insert information];*
- (f) 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;

¹ If ADB, JICA and WB funded projects, use IFB.

- (g) Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the Funding Source;
- (h) 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
- (i) We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- (j) **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 *Site Development in Design and Build Scheme [Name of Project]* of the *Philippine Science High School – Bicol Region Campus [Name of the Procuring Entity]*.**
- (k) **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: _____

In the capacity of: _____

Signed: _____

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

Date: _____

Form of 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 *[insert the amount in specified currency in numbers and words]* 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 shall be attached, deemed to form, and be read and construed as integral part of this Agreement, to wit:
 - (a) General and Special Conditions of Contract;
 - (b) Drawings/Plans;
 - (c) Specifications;
 - (d) Invitation to Bid;
 - (e) Instructions to Bidders;
 - (f) Bid Data Sheet;
 - (g) Addenda and/or Supplemental/Bid Bulletins, if any;
 - (h) 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;
 - (i) Eligibility requirements, documents and/or statements;
 - (j) Performance Security;
 - (k) Notice of Award of Contract and the Bidder’ s conforme thereto;
 - (l) Other contract documents that may be required by existing laws and/or the Entity.
3. In consideration of the payments to be made by the Entity to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Entity to execute and complete the Works and remedy any defects therein in conformity with the provisions of this Contract in all respects.

4. The Entity hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein, the Contract Price or such other sum as may become payable under the provisions of this Contract at the times and in the manner prescribed by this Contract.

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

Signed, sealed, delivered by _____ the _____ (for the Entity)

Signed, sealed, delivered by _____ the _____ (for the Contractor).

Binding Signature of Procuring Entity

Binding Signature of Contractor

[Addendum showing the corrections, if any, made during the Bid evaluation should be attached with this agreement]

Omnibus Sworn Statement

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]* *[insert “ as shown in the attached duly notarized Special Power of Attorney” for the authorized representative]*;

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]*, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary’ s Certificate, 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;
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 following responsibilities as a Bidder:
- a) Carefully examine all of the Bidding Documents;
 - b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;
 - c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d) Inquire or secure 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.

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

Bidder's Representative/Authorized Signatory

SUBSCRIBED AND SWORN to before me this ____ day of *[month]* *[year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate No. _____ issued on ____ at _____.

Witness my hand and seal this ____ day of *[month]* *[year]*.

NAME OF NOTARY PUBLIC

Serial No. of Commission _____

Notary Public for _____ until _____

Roll of Attorneys No. _____

PTR No. _____ *[date issued]*, *[place issued]*

IBP No. _____ *[date issued]*, *[place issued]*

Doc. No. _____

Page No. _____

Book No. _____

Series of _____

* This form will not apply for WB funded projects.

Bid-Securing Declaration

(REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

X-----X

Invitation to Bid *[Insert reference 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 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 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 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;
 - c. I am/we are declared as 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' S AUTHORIZED REPRESENTATIVE]

[Insert signatory' s legal capacity]

Affiant

SUBSCRIBED AND SWORN to before me this ____ day of *[month]* *[year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____.

Witness my hand and seal this ____ day of *[month]* *[year]*.

NAME OF NOTARY PUBLIC

Serial No. of Commission _____

Notary Public for _____ **until** _____

Roll of Attorneys No. _____

PTR No. __, *[date issued]*, *[place issued]*

IBP No. __, *[date issued]*, *[place issued]*

Doc. No. ____

Page No. ____

Book No. ____

Series of ____.

Republic of the Philippines



Government Procurement Policy Board

