

# **Construction of PROPERTY BUILDING**

**(Design and Build Scheme)**

**Sixth Edition  
July 2020**

# Preface

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

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

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

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

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

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

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

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# *Glossary of Terms, Abbreviations, and Acronyms*

**ABC** – Approved Budget for the Contract.

**ARCC** – Allowable Range of Contract Cost.

**BAC** – Bids and Awards Committee.

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

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

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

**BIR** – Bureau of Internal Revenue.

**BSP** – Bangko Sentral ng Pilipinas.

**CDA** – Cooperative Development Authority.

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

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

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

**CPI** – Consumer Price Index.

**DOLE** – Department of Labor and Employment.

**DTI** – Department of Trade and Industry.

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

**GFI** – Government Financial Institution.

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

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

**GOP** – Government of the Philippines.

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

**LGUs** – Local Government Units.

**NFCC** – Net Financial Contracting Capacity.

**NGA** – National Government Agency.

**PCAB** – Philippine Contractors Accreditation Board.

**PhilGEPS** - Philippine Government Electronic Procurement System.

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

**PSA** – Philippine Statistics Authority.

**SEC** – Securities and Exchange Commission.

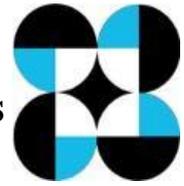
**SLCC** – Single Largest Completed Contract.

**UN** – United Nations.

***Section I. Invitation to Bid***



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



## **Invitation to Bid for *Construction of Property Building* (*Design and Build Scheme*)**

1. The *Philippine Science High School-Bicol Region Campus*, through the *National Expenditure Program (NEP)* intends to apply the sum of FOUR MILLION SEVEN HUNDRED THIRTY SEVEN THOUSAND FIVE HUNDRED PESOS (**Php 4,737,500.00**) being the Approved Budget for the Contract (ABC) to payments under the contract for *Construction of Property Building (Design and Build Scheme)*. 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 above Procurement Project. Completion of the Works is required *Two Hundred Ten (210) calendar days*. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
4. Interested bidders may obtain further information from *Philippine Science High School-Bicol Region Campus* and inspect the Bidding Documents at the address given below from *8:00 in the morning to 5:00 in the afternoon*.
5. A complete set of Bidding Documents may be acquired by interested bidders on *December 8, 2020* from given address and website/s below *and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Five Thousand Pesos (Php 5,000.00)*. The Procuring Entity shall allow the bidder to present its proof of payment for the fees either *in person or through electronic means*.
6. The *Philippine Science High School-Bicol Region Campus* will hold a Pre-Bid Conference<sup>1</sup> on *December 15, 2020, 10:00 AM at the Seminar Hall, Administration Bldg, PSHS-BRC, Goa, Camarines Sur* and/or through videoconferencing/webcasting via *Google Meet*, which shall be open to prospective bidders.

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

7. Bids must be duly received by the BAC Secretariat through (i) manual submission at the office address as indicated below, (ii) online or electronic submission as indicated below, or (iii) both} on or before *January 5, 2021, 10:00 AM*. Late bids shall not be accepted.
8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 15.
9. Bid opening shall be on *January 5, 2021, 10:05AM* at the given address below and/or through *Google Meet (link shall be sent to interested bidders)*. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
10. Eligible Bidders shall submit a Certified True Copy of valid PCAB license for Size Range – Medium A – License Category B, and the contractor's registration certificate from DPWH. Furthermore, Annex G of 9184 shall also be used as reference in the additional bid document requirements.
11. The Philippine Science High School Bicol Region reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

10. For further information, please refer to:

*JOY MELGA B. OLAZO*  
*BAC Secretariat Chairperson*  
*Philippine Science High School-Bicol Region Campus*  
*Tagongtong, Goa, Camarines Su*  
*Email ad: bac@brc.pshs.edu.ph*  
*Mobile Number: 09175801318*  
*School website: brc.pshs.edu.ph*

11. You may visit the following websites:

For downloading of Bidding Documents: *PhilGEPS, brc.pshs.edu.ph*

For online bid submission: *bac@brc.pshs.edu.ph*

*December 7, 2020*

**SEVEDEO J. MALATE**  
*BAC Chairperson*

## ***Section II. Instructions to Bidders***

## **1. Scope of Bid**

The Procuring Entity, *Philippine Science High School-Bicol Region Campus* invites Bids for the Construction of Property Building (Design and Build) with its Project Identification Number of Infra-2021-01.

## **2. Funding Information**

2.1. The GOP through the source of funding as indicated below for *Calendar Year 2021* in the amount of FOUR MILLION SEVEN HUNDRED THIRTY SEVEN THOUSAND FIVE HUNDRED PESOS (**Php 4,737,500.00**) .

2.2. The source of funding is:

NGA, the National Expenditure Program.

## **3. Bidding Requirements**

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

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

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

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

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

## 5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.  
  
A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.
- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

## 6. Origin of Associated Goods

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

## 7. Subcontracts

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

The Procuring Entity has prescribed that:

*[Select one, delete other/s]*

- a. Subcontracting is allowed. The portions of Project and the maximum percentage allowed to be subcontracted are indicated in the **BDS**, which shall not exceed fifty percent (50%) of the contracted Works.
- b. Subcontracting is not allowed.

- 7.2 *[If subcontracting is allowed during the bidding* The Bidder must submit together with its Bid the documentary requirements of the subcontractor(s) complying with the eligibility criteria stated in **ITB** Clause 5 in accordance with Section 23.4 of the 2016 revised IRR of RA No. 9184 pursuant to Section 23.1 thereof.

7.3 *[If subcontracting is allowed during the contract implementation stage, state:]*  
The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

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

## **8. Pre-Bid Conference**

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

## **9. Clarification and Amendment of Bidding Documents**

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

## **10. Documents Comprising the Bid: Eligibility and Technical Components**

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

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

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

- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

## **11. Documents Comprising the Bid: Financial Component**

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

## **12. Alternative Bids**

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

## **13. Bid Prices**

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

## **14. Bid and Payment Currencies**

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

- a. Philippine Pesos.

## **15. Bid Security**

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security shall be valid until One hundred twenty (120) calendar days. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

## **16. Sealing and Marking of Bids**

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

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

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

## **17. Deadline for Submission of Bids**

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

## **18. Opening and Preliminary Examination of Bids**

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

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

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

## **19. Detailed Evaluation and Comparison of Bids**

- 19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.
- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.
- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

## **20. Post Qualification**

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

## **21. Signing of the Contract**

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

### ***Section III. Bid Data Sheet***

# Bid Data Sheet

ITB Clause																			
2.1	The GOP through the source of funding as indicated below for <i>Calendar Year 2021</i> in the amount of FOUR MILLION SEVEN HUNDRED THIRTY SEVEN THOUSAND FIVE HUNDRED PESOS ( <b>Php 4,737,500.00</b> ) .																		
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be at least 50% of the ABC:  <i>Design and construction of infrastructures</i>																		
7.1	<i>Subcontracting is not allowed.</i>																		
8	<i>Pre-bid conference will be held on December 15, 2020 at 10:00 AM at the Seminar Hall, Administration Building, PSHS-BRC Goa and/or through videoconferencing/webcasting via Google Meet, which shall be open to prospective bidders.</i>																		
10.1	In the submission of bids, the technical proposal (First Envelope) shall contain all the required documents for infrastructure projects under Section IX <b>Checklist of Technical and Financial Documents</b> and the following additional documents:  <ul style="list-style-type: none"> <li>i. Preliminary Conceptual Design Plans in accordance with the degree of details specified by PSHS-BRC;</li> <li>ii. Design and Construction Methods</li> <li>iii. List of design and construction personnel, to be assigned to the contract to bid, with their complete qualification and experience data;</li> <li>iv. Value engineering analysis of design and construction method.</li> </ul>																		
10.3	Eligible Bidders shall submit a Certified True Copy of valid PCAB license for Size Range – Medium A – License Category B, and the contractor’s registration certificate from DPWH;																		
10.4	The key personnel must meet the required minimum years of experience set below :  <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Key Personnel</u></th> <th style="text-align: left;"><u>General Experience</u></th> <th style="text-align: left;"><u>Relevant Experience</u></th> </tr> </thead> <tbody> <tr> <td>a. Licensed Architect</td> <td></td> <td style="text-align: right;">5 years</td> </tr> <tr> <td>b. Registered Civil Engineer/ Structural Engineer</td> <td></td> <td style="text-align: right;">5 years</td> </tr> <tr> <td>c. Registered Professional Electrical Engineer</td> <td></td> <td style="text-align: right;">5 years</td> </tr> <tr> <td>d. Registered Professional Mechanical Engineer.</td> <td></td> <td style="text-align: right;">5 years</td> </tr> <tr> <td>e. Registered Master Plumber</td> <td></td> <td style="text-align: right;">5 years</td> </tr> </tbody> </table>	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>	a. Licensed Architect		5 years	b. Registered Civil Engineer/ Structural Engineer		5 years	c. Registered Professional Electrical Engineer		5 years	d. Registered Professional Mechanical Engineer.		5 years	e. Registered Master Plumber		5 years
<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>																	
a. Licensed Architect		5 years																	
b. Registered Civil Engineer/ Structural Engineer		5 years																	
c. Registered Professional Electrical Engineer		5 years																	
d. Registered Professional Mechanical Engineer.		5 years																	
e. Registered Master Plumber		5 years																	

	(Other key personnel and detailed requirements are found in the TOR)																								
10.5	<p>The minimum major equipment requirements are the following:</p> <table border="1"> <thead> <tr> <th><u>Equipment</u></th> <th><u>Capacity</u></th> <th><u>Number of Units</u></th> </tr> </thead> <tbody> <tr> <td>Backhoe</td> <td></td> <td>1</td> </tr> <tr> <td>Delivery truck</td> <td></td> <td>1</td> </tr> <tr> <td>One-bagger concrete mixer</td> <td></td> <td>1</td> </tr> <tr> <td>Concrete vibrator</td> <td></td> <td>1</td> </tr> <tr> <td>Mechanical Temper</td> <td></td> <td>1</td> </tr> <tr> <td>Welding Machine</td> <td></td> <td>1</td> </tr> <tr> <td>Bar Cutter</td> <td></td> <td>1</td> </tr> </tbody> </table>	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>	Backhoe		1	Delivery truck		1	One-bagger concrete mixer		1	Concrete vibrator		1	Mechanical Temper		1	Welding Machine		1	Bar Cutter		1
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15.1	<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"> <li>a. The amount of not less than Php 94,750.00, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit;</li> <li>b. The amount of not less than Php 236,875.00 if bid security is in Surety Bond.</li> </ol>																								
15.2	The Bid and bid security shall be valid until One hundred twenty (120) calendar days.																								
16	Each Bidder shall submit [1] original and [3] copies of the first and second components of its bid.																								
17	Deadline of the submission of bids is January 5, 2020 @ 10:00 AM.																								
18	Bid Opening is on January 5, 2020 @ 10:05 AM																								
19.2	Partial bids are not allowed.																								
20	<i>Bidder shall submit/present all required licenses and permits relevant to the project.</i>																								
21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and other acceptable tools of project scheduling.																								

## ***Section IV. General Conditions of Contract***

## 1. Scope of Contract

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

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

## 2. Sectional Completion of Works

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

## 3. Possession of Site

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

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

## 4. The Contractor's Obligations

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

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

## **5. Performance Security**

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

## **6. Site Investigation Reports**

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

## **7. Warranty**

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

## **8. Liability of the Contractor**

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

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

## **9. Termination for Other Causes**

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

## **10. Dayworks**

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

## **11. Program of Work**

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

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

## **12. Instructions, Inspections and Audits**

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

## **13. Advance Payment**

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

## **14. Progress Payments**

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

## **15. Operating and Maintenance Manuals**

- 15.1. If required, the Contractor will provide “as built” Drawings and/or operating and maintenance manuals as specified in the **SCC**.
- 15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity’s Representative’s approval, the Procuring Entity’s Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

## *Section V. Special Conditions of Contract*

# Special Conditions of Contract

GCC Clause																			
2	<i>Intended completion of days is 210 calendar days</i>																		
3.1	The <b>Procuring Entity</b> shall give possession of all parts of the Site to the Contractor <i>upon NTP</i> .																		
4	<p><u>The contractor shall employ the following key personnel</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Key Personnel</u></th> <th style="text-align: left;"><u>General Experience</u></th> <th style="text-align: left;"><u>Relevant Experience</u></th> </tr> </thead> <tbody> <tr> <td>a. Licensed Architect</td> <td></td> <td style="text-align: right;">5 years</td> </tr> <tr> <td>b. Registered Civil Engineer/ Structural Engineer</td> <td></td> <td style="text-align: right;">5 years</td> </tr> <tr> <td>c. Registered Professional Electrical Engineer</td> <td></td> <td style="text-align: right;">5 years</td> </tr> <tr> <td>d. Registered Professional Mechanical Engineer.</td> <td></td> <td style="text-align: right;">5 years</td> </tr> <tr> <td>e. Registered Master Plumber</td> <td></td> <td style="text-align: right;">5 years</td> </tr> </tbody> </table>	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>	a. Licensed Architect		5 years	b. Registered Civil Engineer/ Structural Engineer		5 years	c. Registered Professional Electrical Engineer		5 years	d. Registered Professional Mechanical Engineer.		5 years	e. Registered Master Plumber		5 years
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6	The site investigation report : <i>Site Inspection</i>																		
7.2	<i>Warranty against structural defects: Fifteen (15) years.</i>																		
10	a. Dayworks are applicable at the rate shown in the Contractor's original Bid.																		
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within <i>fourteen (14)</i> days of delivery of the Notice of Award.																		
11.2	The amount to be withheld for late submission of an updated Program of Work is _____.																		
13	The amount of the advance payment is <i>15% of the total contract price and schedule of payment</i> ].																		
14	Materials and equipment delivered on the site but not completely put in place shall be included for payment.																		
15.1	The date by which "as built" drawings are required is <i>before full payment of the contract</i> .																		
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is <i>still to be determined</i> .																		

## *Section VI. Specifications*

# TERMS OF REFERENCE

Project Title: Construction of Property Building (Design and Build Scheme)

## I. INTRODUCTION

### A. Background and Rationale:

The **Philippine Science High School-Bicol Region Campus (PSHS-BRC)** through the approved allocation for capital outlays under FY 2021 General Appropriations Act intends to apply the sum of **FOUR MILLION SEVEN HUNDRED THIRTY SEVEN THOUSAND FIVE HUNDRED PESOS (Php 4,737,500.00)** being the **APPROVED BUDGET FOR THE CONTRACT**.

## PROJECT DESCRIPTION AND LOCATION

The project will involve the complete design, consultancy, and construction of Property Building, pursuant to the technical specifications indicated in this Terms of Reference, and the PSHS System Building Standards and Specifications.

The indicated cost of **FOUR MILLION SEVEN HUNDRED THIRTY SEVEN THOUSAND FIVE HUNDRED PESOS (Php 4,737,500.00)**, includes all taxes and applicable permits, licenses and clearances, for the design and construction of the Property Building, in which a maximum of six (6.0%) percent shall be allocated for the design of the whole building and the balance for the construction/implementation of the approved designs.

The Property Building is a two-storey edifice which will be constructed closely adjacent to the left side of the Administration Building. It shall comply with the latest National Building Code of the Philippines, Civil Engineering Law, Fire Code, Sanitary & Plumbing Code, Electrical Code, the DENR requirements, Green Building Act, local codes and all other code requirements necessary for the safety of the building and its occupants.

## UTILITY LOCATIONS

The Property Building may tap its power from the Power House with 50 kVA standby generator located at the back of Academic Building I.

Water supply for the building may be tapped from the existing pipeline supplying the Administration Building.

The storm and drainage system can be connected to one of the manholes of the existing drainage system of the campus which is located at the vicinity of the Administration Building.

The sewage and waste water shall be tapped to the existing system connected to the Sewage Treatment Facility of the campus.

## **II. PROJECT REQUIREMENTS**

The proposed building will be adjacent and connected to the existing Fire Exit of the Administration Building, forming a symmetrical appearance especially at the front, right portion. It shall also be provided with the following requirements:

- a) Wi-fi and internet connections for the Supply Office and Records Room;
- b) CCTV cameras and paging system;
- c) Fire exits, fire exit lights, and Fire Exit and Evacuation plan;
- d) Fire Alarm and Sprinkler System, (roughing-in, inside the building);
- e) Relocation/Replacement of the existing Septic Tank for the Administration Building, to an area outside the proposed Property Building;

A Records Room will be provided with a typhoon/waterproof covering, e.g. concrete slab, and it shall be fireproof to protect government records from being destroyed during calamities.

It will also be provided with a ramp up to the second floor for the transport of heavy materials and equipment.

The perimeter road located at the left side of the Administration building will have to be retained to give free access to the vehicles and pedestrians. This may also serve as the loading and unloading area for the deliveries of supplies and equipment. The areas above this road will form part of the building and have to be utilized for storage purposes.

The existing Auditor's Office at the second floor of the Administration Building will be relocated, and it may be considered to be part of the stock room. It may be extended backwards to utilize the available space at the rear side of the building.

The design should be for the whole building. Finally, the design should incorporate latest design trends, must be energy efficient and must use green technology.

### **A. CONCEPTUAL DESIGN. (Preliminary Information/Studies for Design and Construction )**

The proposed Property Building shall have access for the delivery of supplies, materials and equipment. The vicinity map, floor plans, foundation plans of the existing

Administration Building where it will be adjacent to, will be provided as reference for the conceptual design. The dimensions and space areas must be consistent with the PSHS Building Standards and Specifications.

1. Ground Floor

The existing Utility Room of the Administration Building may be relocated to give way to an access to the proposed building

2. Second Floor

In the same manner the existing Fire Exit may also be relocated to a strategic location to give access to the second floor of the proposed Property Building.

## B. DETAILED DESIGN

Detailed design will include the following:

1. Detailed Architectural Plans containing but not limited to the following:

- Vicinity Map, Location Plan, Lot Plan, Site Development Plan and Perspective
- Floor Plans, Elevations, Sections, Roof, Reflected Ceiling Plans
- Schedule of Doors and Windows and other details
- Schedule of finishes for floors, walls, ceilings.

2. Detailed Structural Plans containing but not limited to the following:

- Foundation, Floor Framing, and Roof Framing plans
- Schedule and Details of Footings and Columns, Beams and Slabs
- Details of Trusses, Anchorage, Roofing, Stairs, Ramp, Fire Exits, and other Spot Details;
- Structural Analysis

3. Detailed Electrical Plans containing but not limited to the following:

- Legends and abbreviations
- Riser Diagram, Lighting, Power and Auxilliary Layouts;
- Mounting heights for outlets and switches;
- Schedule and Detail of Loads and Other Details
- Electrical Computation and Design Analysis

4. Detailed Storm Drain, Sanitary and Plumbing Plans containing but not limited to the following:

- Location and Site Plans;
- Storm Drainage Layout including tapping line to main drainage line;
- Waterline Layout including tapping from main water source when applicable;
- Sewer line Layout tapping line to septic tank or existing sewer line;
- Isometric Layout showing waterline, drainage line and sewer line;
- Detail of connections catch basins, downspouts, etc.;

- Detail of Septic Tank/Sewage Neutralization Tank;
5. General Notes and Technical Specifications describing type and quality of materials and equipment to be used, manner of construction and the general conditions under which the project is to be constructed.
  6. Detailed Bill of Quantities, Unit Cost Derivations, Detailed Quantity Estimates, Cost Estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals.

### C. CONSTRUCTION

As a rule, contract implementation guidelines for procurement of infrastructure projects shall comply with Annex “E” of IRR, RA 9184. The following provisions shall supplement these procedures:

1. No works shall commence unless the contractor has submitted the prescribed documentary requirements and the PSHS-BRC has given written approval. Work execution shall be in accordance with reviewed and approved documents.
2. The contractor shall be responsible for obtaining all necessary information as to risks, contingencies and other circumstances which may affect the works and shall prepare and submit all necessary documents specified by the concerned Building Officials to meet all regulatory approvals as specified in the contract documents.
3. The contractor shall submit a *detailed program of works within fourteen (14) calendar days* after the *issuance of the Notice to Commence* for approval by the procuring entity that shall include, among others:
  - a. The order in which it intends to carry out the work including anticipated timing for each stage of design/detailed engineering and construction;
  - b. Periods for review of specific outputs and any other submissions and approvals;
  - c. Sequence of timing for inspection and tests;
  - d. General description of the design and construction methods to be adopted;
  - e. Number and names of personnel to be assigned for each stage of the work;
  - f. List of equipment required on site for each stage of the work; and
  - g. Description of the quality control system to be utilized for the project.
4. Any errors, omissions, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor’s cost. If the contractor wishes to modify and design a document which has been previously submitted, reviewed and approved, the

contractor shall notify the PSHS-BRC within a reasonable period of time and shall shoulder the cost of such changes.

5. As a rule, changes in design and construction requirements shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change or variation orders:
  - a. Change Orders resulting from design errors, omissions or non-conformance with the performance specifications and parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to the PSHS-BRC.
    - a.1 Provided that the contractor suffers delay and/or incurs costs due to changes or errors in the PSHS-BRC performance specifications and parameters, the contractor shall be entitled to an extension of time for any such delays under Section 10 of Annex “E” of IRR (RA 9184).
6. The contract documents shall include the manner and schedule of payment specifying the estimated contract amount and installments in which the contract will be paid.
7. The contractor shall be entitled to advance payment subject to the provisions of Section 4 of Annex “E”, IRR (RA 9184).
8. The contractor shall provide all necessary equipment, personnel, instruments, documents and others to carry out specified tests.
9. This design and build project shall have a minimum Defects Liability Period of one (1) year after contract completion or as provided for in the contract documents. This is without prejudice to the liabilities imposed upon the engineer/architect who drew up the plans and specification for building sanctioned under Section 1723 of the New Civil Code of the Philippines.
10. The contractor shall be held liable for design and structural defects and/or failure of the completed project within the warranty period of 15 years for permanent structures/buildings as specified in Section 62.2.3.2 of the IRR (RA 9184).

### **III. PROJECTED SUBMITTALS**

The following submittals and accomplished documents shall be duly completed and turned-over by the Consultant:

- A. For the Design Phase
  - a) Construction plans (signed and sealed) that include Architectural, Civil, Structural, Electrical, Structured Cabling, Mechanical, Fire Protection and Plumbing plans (10 sets hard copy and a soft copy)
  - b) Technical specifications, signed and sealed (10 sets hard copy and the soft copy)
  - c) Detailed cost estimates, signed and sealed (3 sets hard copy and the soft copy)
  - d) Bill of quantities (3 sets hard copy and the soft copy)
  - e) Site survey and other pertinent data related to the conditions of the project site

- f) Documents required for securing the Building Permit
- g) Drawings and reports that PSHS-BRC may require for the periodic update concerning the status of the design phase.

**B. For the Construction Phase**

- a) As-built plans, signed and sealed (three sets hard copy and a soft copy)
- b) All necessary permits, including fees, shall be included in the Contract. Verify local taxes imposed to Contractors
- c) PERT-CPM Network Diagram and detailed computation of contract time) to be submitted before the work commences)
- d) Test results, if any
- e) Guarantees, warranties and other certificates
- f) All other necessary documents to be required by PSHS-BRC.

**IV. IMPLEMENTATION ARRANGEMENT**

**A. Reporting Protocol**

**1. Contact Person**

- a. Campus Director LORVI B. PAGOROGON, RPAE, MHWQ  
Director III  
Philippine Science High School-BRC  
Tagongtong, Goa, Camarines Sur
- b. Supervising Administrative Officer MARIA CECILIA A. GONZAGA  
Supervising Administrative Officer
- c. Campus Supervising Engineer (to be nominated/assigned)

**V. ELIGIBILITY REQUIREMENTS:**

**A. Basic**

The eligibility requirements for Consultancy and Design shall comply with the applicable provisions of IRR of RA 9184

The Design Build Contractor must have completed projects in the amount of at least fifty percent (50%) per project package in the last ten (10) years and must have the network and resources in place preferably per region, to mobilize the contemplated nationwide Design and Build Services.

**A. Eligibility Documents**

**A.1. Class “A “Documents**

1. PhilGEPs Registration
2. Registration from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives;
3. Mayor's permit issued by the city or municipality where the principal of business of the prospective bidders is located;
4. Statement of all its on-going and completed government and private contracts within ten (10) years from the submission of bids
  - a. CPES rating or
  - b. Certificate of Completion
5. SLCC
6. PCAB licenses and registration for the type and cost of the contract for this project (Medium A – License Category B) and contractor's registration certificate from DPWH;
7. Audited financial statement, stamped "received" by the BIR for the preceding calendar year;
8. Tax Clearance
9. NFCC computation.

#### A.2. Class "B" Documents

- Joint Venture Agreement, if applicable.
- Technical Documents

1. Bid Security (in any form)
2. Project Requirements

##### 2.1. Design and Construction Method

2.2. Value engineering analysis of design and construction method. Prospective bidders shall prepare a value engineering analysis report of their proposed design and construction method to be applied for the PROJECT. Importance shall be made on the following criteria:

- Cost-saving, measured on a per square meter average figure
- Time-saving in design and construction duration, measured using the HOPE approved PERTCPM of the project.

- Operational efficiency to take advantage of natural lighting and ventilation in some areas and use of efficient toilet.12

### 2.3. Organizational Chart

### 2.4. List of Contractor's Personnel with complete qualification and Experience data

### 2.5. List of Contractor's Equipment units, which are owned, leased, and/or Under purchase agreements, supported by certification of availability of Equipment from the equipment lessor/vendor for the duration of the Project.

### 2.6. Manpower Schedule

### 2.7. Equipment Utilization Schedule

### 2.8. Bar Chart and S-curve

### 2.9. Construction Safety and Health Program

### 2.10. PERT-CPM

## 3. Omnibus Sworn Statement

- Financial Component
  1. Financial Bid Form
  2. Bill of Quantities
  3. Detailed Cost Estimates
  4. Summary Sheet indicating the unit prices of materials, labor rates and equipment rental
  5. Payment Schedule

## B. Specialized

For the Pre-Detailed Design and Detailed Design portion of the contract, the bidder is required to hire the minimum number of people as shown below. However, should the Bidder opine that the required number would be insufficient to complete the works/services within the specified time frame, the Bidder can hire additional staff which method deserves to be detailed or explained in the Bidder's Technical Proposal. Likewise the Bidder shall remunerate this additional staff all within the bidder's Financial Proposal.

### 1. FOR DESIGN PERSONNEL

The key professionals and the respective qualifications of the DESIGN PERSONNEL shall be as follows:

#### a) Design Architect

The Design Architect must be duly-licensed with at least five (5) years of experience in the design of residential, academic or institutional facilities,

and shall preferably be knowledgeable in the application of Green Design Technology in school construction.

**b) Structural Engineer**

The Structural Engineer must be a duly-licensed Civil Engineer with at least five (5) years of experience in structural design and shall preferably be knowledgeable in the application of Green Design Technology in school construction.

**c) Electrical Engineer**

The Electrical Engineer must be a registered Professional Electrical Engineer with at least five (5) years of experience in the design of lighting, power distribution, communication systems (specifically structured and local area network cabling), building management systems and preferably knowledgeable in developments in emergent efficient lighting technologies and energy management.

**d) Mechanical Engineer**

The Mechanical Engineer must be a registered Professional Mechanical Engineer with at least five (5) years of experience in HVAC and fire protection systems and preferably knowledgeable in emergent, alternative energy-efficient HVAC technologies.

**e) Sanitary Engineer**

The Sanitary Engineer must be duly-licensed with at least five (5) years of experience in the design of building plumbing, water supply and distribution system.

The key professionals listed are required. Prospective bidders shall attach each individual's resume and PRC license of the (professional) staff.

**2. FOR THE CONSTRUCTION PERSONNEL**

The key professionals and the respective qualifications of the CONSTRUCTION PERSONNEL shall be as follows:

**a. Project Engineer/Architect**

The Project Engineer/Architect shall be a licensed architect or engineer with at least three (3) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of rapid construction technologies.

**b. Electrical Engineer**

The Electrical Engineer must be a registered Professional Electrical Engineer with at least five (5) years of experience in the design of lighting, power distribution and preferably knowledgeable in developments in emergent efficient lighting technologies and energy management.

c. Sanitary Engineer

The Sanitary Engineer must be duly-licensed with at least five (5) years of experience in similar and comparable projects in the installation of building water supply and distribution, plumbing.

d. Foreman

The Foreman must have at least five (5) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of Green Building technologies.

e. Safety Officer

The safety officer must be an accredited safety practitioner by the Department of Labor and Employment (DOLE) and has undergone the prescribed 40-hour Construction Safety and Health Training (COSH).

**VI. APPROVED BUDGET COST**

The Construction of Property Building (Design and Build Scheme), will have an Approved Budget for the Contract (ABC) of **FOUR MILLION SEVEN HUNDRED THIRTY SEVEN THOUSAND FIVE HUNDRED PESOS (Php 4,737,500.00)**, including all taxes and applicable permits, licenses.

**VII. TIME FRAME**

The Design Consultant is required to complete the Project within a period of seven months, to start upon the Consultant’s receipt and signing of Notice to Proceed.

Months	2	5
Pre-Design Phase	→	
Detailed Design (DAED) Phase	→	
Construction Phase		→

## **VIII. MINIMUM REQUIREMENTS FOR A CONSTRUCTION SAFETY AND HEALTH PROGRAM FOR THE PROJECT BEING CONSIDERED**

### General Requirements

No Contractor or subcontractor shall require any employee to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to his health or safety.

In order to meet this general requirement, the contractor must:

1. Initiate and maintain programs (written or otherwise) to comply with this general requirement.
2. Provide frequent and regular inspections of the job sites by competent persons
  - Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to prompt corrective measures to eliminate them.
3. Prohibit the use of any machinery, tool, material, or equipment that is not in compliance with applicable requirements.
  - 4 Permit only those employees adequately trained to operate machinery or equipment.
5. Provide training for all employees in:
  - Recognition and avoidance of unsafe conditions
  - Workplace safety and health requirements
  - Applicable hazards, safe handling, and personal protective equipment necessary for handling poisons, caustics, flammables, and other harmful substances relevant to their job duties.
  - Specific hazards and procedures for entering confined spaces if applicable
6. Provide provisions for medical care and first aid.
7. Develop an effective fire protection and prevention plan.

8. Insure appropriate housekeeping measures including clear walkways and removal of combustible scrap and debris.
9. Require the wearing of appropriate personal protective equipment such as hard hats, safety glasses, steel toe shoes, or other appropriate protective equipment in all operations where there is an exposure to hazardous conditions.
10. Develop an emergency action plan covering designated actions employers and employees must take to ensure employees safety from fire and other emergency.
  - Plan must be in writing for employers with greater than 10 employees
  - All employees must be trained upon initial assignment on the parts of the plan the employee needs to know in the event of an emergency.
11. Provide access to hand washing facilities, toilets, and an adequate supply of drinking water.
12. Provide safety and health signs that are clearly visible to construction workers and public.
13. Conduct regular safety meetings.

**SUBJECT : ARCHITECTURAL DESIGN PARAMETERS**

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## **I. Codes and Standards**

The Architectural Works shall be in accordance with the following Laws, Codes and Standards.

### **• Laws and Codes:**

1. National Building Code of the Philippines and its Latest and Amended IRR
2. RA 9266 or Architecture Law and its Latest and Amended IRR
3. BP 344 or Accessibility Law and its Latest and Amended IRR
4. Fire Code of the Philippines
5. Green Building Act
6. Existing Local Codes and Ordinances.

### **• Standards:**

1. Bureau of Product Standards (BPS)

## 2.Underwriters Laboratory (UL)

### II. General Drawing Guidelines

#### 1. General

- All drawings shall be computer-drafted. Drawings shall be submitted both in printed and electronic copies.
- Keep the same orientation for all plans. The north orientation shall be indicated in all architectural floor plans. The orientation of the architectural plans shall be consistent with all the engineering plans.
- Existing buildings and new works shall be clearly indicated and labeled in the site plans.
- Detailed plans shall have a scale not smaller than 1: 50 meters.
- Spot detailed plans, elevations, and sections shall have a scale not smaller than 1: 10 meters.
- Avoid notes such as ‘see architectural detail’ or ‘see structural’. Always refer with a callout to the specific detail drawing and sheet number.

#### 2. Site Plans

- The site plans shall have a scale not smaller than 1:400 meters.

#### 3. Floor Plans

- All plans shall be 1:100 meters. The same scale shall be used for the rest of the architectural, structural, sanitary, plumbing, electrical and mechanical plans, except for each trade’s site plan, detailed plans and spot details.
- Elevation callouts shall be indicated on the floor plans and shall be consistent with the elevation drawing.
- Section line callouts on the floor plans shall be consistent with the section drawing.
- Floor plans shall be indicated with boxed room callout numbers, including the callout for floor finishes and wall finishes.
- Floor elevations shall be indicated in the floor plans. This shall be in reference to the natural grade line or the established finished floor lines of the adjoining existing buildings.
- The location of mechanical equipment, e.g. air conditioning shall be indicated in the floor plans. This shall be consistent with the mechanical and electrical plans.

- Door callouts shall be circles with the proper numbering, e.g. D-01.
- Window callouts shall be hexagons with the proper numbering, e.g. W-01.

#### 4. Elevations and Sections

- Finish floor lines and top of truss lines shall be consistent in all the elevations, sections and structural plans and details.

#### 5. Reflected Ceiling Plans

- Reflected ceiling plans shall be indicated with boxed room callout numbers, including the callout for ceiling finishes and lighting fixtures.
- Ceiling height relative and in reference to the finish floor line shall be indicated in the reflected ceiling plans in each room with boxed dimensions. This is to ensure that the ceiling heights of all rooms are established whether or not reflected in the sections.
- The description and location of the fixtures, e.g. lighting, smoke detectors, sprinklers, exhaust fans, in the reflected ceiling plans shall be consistent with the electrical and mechanical plans.
- The exterior ceiling materials use spandrel as per specs or equivalent.

#### 6. Roof Plans

- Location of all downspouts shall be indicated in the roof plans.

#### 7. Doors and Windows

- Door and window schedules shall indicate the type of door or window, the number of sets, the location/s of the door or window, the materials and accessories included and other special specifications, e.g. color or finish.

#### 8. Details

- Provide a minimum of one (1) bay section of a scale not smaller than 1: 50 meters for each major building preferably cut along the area with special construction design.
- Provide spot detail plans, elevations and sections of a scale not smaller than 1:10 meters for special designs with aesthetic treatment and ornamentation.
- Provide detail plans of a scale not smaller than 1:50 for all areas needing tile pattern,
- Centerline location of plumbing fixtures shall be indicated in detail plans with lines of reference and its corresponding dimensions. This is to indicate the exact locations of the plumbing/sanitary roughing-ins.

### **III. Site Works**

1. The Master Site Development Plan of the PSHS-BRC shall include the following:
  - a. Road network and curbs and sidewalks
  - b. Parking spaces
  - c. Reference location of existing trees
  - d. Reference location and footprint of existing buildings, with the corresponding building names and dimensions, including distances between adjacent buildings, and distances between buildings and the nearest property line
  - e. Reference location of utilities, e.g. water reservoirs, septic tank, wastewater treatment plant, powerhouse, transformers, waste storage area, security
2. Ramp shall be provided in the main entrance of the building and other access openings to walkways leading to other buildings.

### **IV. Building Architectural Works**

#### **1. Floor Plans**

- The structural, sanitary, plumbing, electrical and mechanical designs are required to refer to the architectural plans and specifications in case of discrepancies. If an engineering design will have any possible conflict or interference on the architectural design, the latter may be adjusted provided that the aesthetic value will not be compromised.
- The architectural and engineering plans shall be consistent all throughout in terms of dimensions and locations of columns, beams, walls, roof line, conduits, ducts, pipes, and fixtures, among others. Column and beam grid lines shall also be consistent in all the architectural and engineering plans.
- Verify and coordinate floor plans with the mechanical, electrical and sanitary design with regard to the requirements for mechanical rooms, electrical rooms, pipe chase, and other engineering requirements.
- Public toilets shall have provisions and fixtures for persons with disability as required by BP 344. If enough space allows, toilets specially made and designated for persons with disability is preferable.

#### **2. Walls**

- Exterior walls shall be 200mm. thick, while interior walls shall be 150mm. thick. This is indicative of the finished wall thickness including the plastering and tile works

- Layout and work on wall and floor tiles must be aligned, plumb, level, and square.
- Tile color and design shall be approved first before installation.

### 3. Floors

- If floor tiles in two adjacent rooms with different material, color or design meet at the door opening, the cut shall be located middle of the door thickness when in a closed position. Provide details in the floor pattern design.
- Layout and work on wall and floor tiles must be aligned, plumb, level, and square.
- Tile color and design shall be approved first before installation.

### 4. Ceiling Works

The following rooms shall have a minimum ceiling height:

- Ceiling Board shall fiber cement board or approved equivalent light gauge metal furring. Metal spandrel/Boral Board or approved equivalent for ceiling eaves.
- Soffit of exterior beams and slabs shall have drip moulds to prevent damage due to water sipping into the eaves or ceiling. Section details shall be required to show the drip mould.

### 5. Doors and Windows

- Major rooms that require security shall have sturdy doors e.g. wood panel, and metal.
- Minor rooms that do not require security shall at least have wood flush doors.

### 6. Fire escape

- Fire exit doors, should be provided with panic hardware and door closers, and shall conform with the requirements of the Fire Code of the Philippines.
- Aluminum frames of glass doors and windows shall be Powder Coated finished
- Door finish and color shall be approved first before application to provide forms for approval of tiles
- Window sills shall be slightly sloped outwards to prevent damage to windows and paint due to water seepage. Section details shall be required to show this slope.
- All doors of a high-occupancy room shall swing outwards and as required by the Fire Code of the Philippines.

- Door jambs with no molding/casing installed on concrete walls shall have construction grooves all around. Provide details.
- All doors and windows shall have reinforced concrete lintel beams. Provide details.

#### 7. Stairs, Ramps and Corridors

- Ramps for persons with disability shall have a slope not higher than 1 : 12. Handrails and clearances shall conform with the requirements of BP 344.
- Regular stairs shall have risers at 150mm. high and treads at 300mm. wide. Fire stairs could have a maximum riser at 200mm. and tread at 250mm. Handrails shall be 1100mm. high. Clearances shall conform with the requirements of the Fire Code of the Philippines.
- Corridors shall have a minimum unobstructed width of 2000mm or 2450mm. This shall be measured clear from the surface of the finished wall and not on-center of the rough CHB wall.
- Corridors and exit doors shall conform with the requirements of the Fire Code of the Philippines.

#### 8. Fixtures and Accessories

- Three-way electrical light switches shall be provided at the foot and the top of the stairs per floor. Likewise at both ends of a long corridor.
- Electrical light switches shall be located by the knob side of the door.
- Electrical switches and outlets shall be installed plumb and level.
- A drainage line shall be provided for window-type air conditioners. Likewise, split-type air conditioners located in the interior part of the building shall be so located adjacent to areas with drainage lines, e.g. toilets, downspouts.

#### 9. Roofing Works

- The section of the roof gutters shall be designed, in case of a clogged downspout, so that the overflow of water will be directed outside of the building and not towards the eaves or interior ceiling to prevent any damage. Provide details.
- Avoid valley or inside gutters in roof design. But in cases required in aesthetic design, valley or inside gutters shall be in stainless steel or concrete gutters with membrane-type waterproofing, and the section shall be designed with a capacity for big volume to prevent any damage due to overflow. Provide details.
- Parapets, designed as a roof protection from the winds, must be designed to satisfy the preceding parameters. Provide details.
- The slope of the roof shall not be less than 30 degrees.

## 10. Painting

- Painted ceiling shall be in flat latex finish, and if cornices and mouldings are provided, shall be in gloss enamel finish.
- Painted interior wall shall be at least in semi-gloss latex finish.
- Painted exterior wall shall be at least in moisture-resistant/water-repellant solvent-based paint finish, textured or smooth, unless otherwise specified.
- Paint color and shade shall be approved first before application.

## V. Specific Requirements

1. Provide spot detail plans and sections of the following:

1. Ceiling - cove light, special connections and design, mouldings, valances
2. Stairs - handrail, and baluster design
3. Ramps - handrail design and floor pattern
4. Doors, windows - grille works,
5. Special Carpentry Works, e.g. partitions, cabinetry
6. Gutter, eaves, and parapet
7. Other details as may be required

## VI. Summary of Materials

1. Materials to be used shall be fire-resistant, moisture-resistant, termite-resistant, e.g. fiber cement board, light-gauge steel frame, polyvinyl chloride ceiling panels.
2. Wet areas, e.g. toilets, shall use non-skid/non-slip vitrified ceramic floor tiles.
3. Stairs shall use granite tiles with stair nosing non-skid/non-slip floor tiles, materials as specified.
4. Roofing sheets shall be Ga.# 24 rib-type, pre-painted, and pre-formed.

**End of Scheme---**

**SUBJECT: DESIGN PARAMETERS (STRUCTURAL/CIVIL WORKS)**

## I. Codes and Standards

The Civil/Structural Design shall be in accordance with the following Codes and Standards

- Codes
  1. National Structural Code of the Philippines (NSCP) 2001
  2. National Building Code of the Philippines and its revised IRR
  3. Accessibility Law
  4. Local Codes and Ordinances
- Standards
  1. Bureau of Product Standards (BPS)
  2. Philippine National Standards (PNS)
  3. DPWH Blue Book
  4. American Concrete Institute (ACI)
  5. American Society for Testing Materials (ASTM)
  6. American Welding Society (AWS)

## II. Site Works

Based on Master Site Development Plan of the PSHS-BRC, provide where applicable complete design and details of walkways.

1. Walkway should be at least 100mm thick with concrete strength of 2500psi. Ramps should be provided, instead of steps, for any change in elevations.

## III. Building

1. The Property Building should be designed using seismic importance factor of 1.25 for immediate occupancy category. Buildings should be designed in accordance with NSCP Requirements up to Magnitude 7 for those near seismic source Type A. Seismic gaps between buildings (old and new) should be properly observed.
2. The Property Building should be designed also using wind importance factor of 1.15 (especially for design of trusses/roofing system). Concrete gutters and parapet walls should be provided as additional protection to the roofing system during strong typhoons.
3. The structural designer should verify with Philippine Volcanology and Seismology (PHIVOLCS) the distance of the proposed building to nearest active fault lines and with the DENR for geo-hazard mapping.

4. Soil investigation (at least three bore holes) should be conducted to determine soil bearing capacity and recommended foundation design (applicable even for one storey structure).
5. The structural designer is encouraged to use fire-resistive and non-toxic materials.

IV. Details – the following shall be provided:

1. Connection details of beams and columns following the requirements of NSCP on confined areas.
2. Connection of trusses to beams and columns
3. Splicing details of reinforcing bars on columns and beams and the required bar cut-off points.

V. Summary of Materials

1. Concrete shall conform to ASTM Specification C150, Type I to Type II
2. Coarse Aggregates shall consist of washed gravel, crushed stone or rock or a combination thereof conforming to ASTM C33
3. Concrete Hollow Blocks shall be a standard product of recognized manufacturer conforming to PNS 16 with at least 350psi strength.
4. Reinforcing Bars shall conform with PNS Grade 60 for 16mm dia. and above and PNS Grade 40 for 12mm dia. and below.
5. Structural steel shall conform with ASTM A36/A6M
6. Bolts and Studs shall conform with ASTM A 325
7. Welding electrodes shall be E60 or E 70 and conform with AWS D.1.1

## **End of Scheme---**

**SUBJECT : SANITARY/PLUMBING DESIGN PARAMETERS**

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### **I. Codes and Standards**

The Sanitary/Plumbing Design shall be in accordance with the following Codes and Standards.

- **Codes:**

1. National Building Code of the Philippines and Its New IRR
2. Fire Code of the Philippines
3. National Plumbing Code of the Philippines (NPCP)
4. Sanitation Code of the Philippines
5. Existing Local Codes and Ordinances.

- **Standards:**

1. Bureau of Product Standards (BPS)
2. Philippine National Standards for Drinking-Water
3. Underwriters Laboratory (UL)
4. National Water Resources Board (NWRB)
5. National Plumbers Association of the Philippines (NAMPA)
6. Philippine Society of Sanitary Engineers, Inc. (PSSE)

### **II. Site Works**

- Based on the Master Site Development of PSHS-BRC, the Site Works shall provide complete layout of the following:
  1. Storm Drainage Lines, indicating Drainage Manholes and Concrete Pipe/Culvert;
  2. Sewerage Pipe Network, indicating Sewage Manholes, Sewage pipes and the location of the Sewage Treatment Facility; and

- Water Supply Network, indicating the location of Water Service

### **III. Building Facilities Sanitary/Plumbing System**

#### 1. Sewerline and Vent System

- Provide complete Sewerline and Vent System from all (Domestic) plumbing fixtures and floor drains, laid by gravity flow leading to the Sewage Treatment Facility (STF);

#### 2. Wastewater line and Vent System

- Provide separate Water line and Vent System routing into a proposed Neutralization Tank prior to discharge to the Sewage Treatment Facility;
- For Estimated Demand Weight of Fixtures in Fixture Units; refer to Appendix A, Table A-2, NPCP

#### 3. Waterline System

- Provide complete cold water supply pipes to all plumbing fixtures. From the main water source, the water shall be pumped to the Elevated Water Tank (EWT) and conveyed to the fixtures by gravity system and or distributed to fixtures by transfer pumped with constant pressure through a Pneumatic Storage Tank, whichever is feasible.

#### 4. Storm Drainage System

- Complete Storm Drainage System shall be provided for all roofs, canopies, concrete ledges and balconies including condensate drains laid for gravity flow connected to a leader/pipe line leading to the natural ground level storm drainage network.

### **IV. Specific Requirements**

1. Provide details of the Septic Tank

### **V. Summary of Materials**

- Sewer and Vent pipes; Polyvinyl Chloride (PVC) extra series 1000 (Conforming to ISO 3633 ASTM D2729 including Trims and Fittings)
- Storm Drainage pipes; Downspouts, Polyvinyl Chloride (PVC) extra series 1000( Conforming to ISO 3633 ASTM D2729 including Trims and Fittings , BPS Certified)

- Drainage Pipes; 250mm dia. and below, Non-Reinforced Concrete Pipe (NRCDP)  
300mm dia. and above, Reinforced Concrete Pipe (RCDP)
- Gutter Drains; Polyvinyl Chloride (PVC) (BPS Certified)
- Cold Waterline pipes; for buildings, Unplasticized Polyvinyl Chloride (uPVC) Pipes including Trims and Fittings (BPS Certified)
- Trench Grating; Galvanized/Stainless Steel Iron grates

**--End of Scheme—**

**SUBJECT : MECHANICAL WORKS DESIGN PARAMETERS**

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### **I. Codes and Standards**

The Mechanical Design shall be in accordance with the following Codes and Standards.

- **Codes:**
  1. National Building Code of the Philippines and Its New IRR
  2. Fire Code of the Philippines
  3. Mechanical Engineering Code of the Philippines (ME Code)
  4. Existing Local Government Codes and Ordinances.
- **Standards:**
  1. Bureau of Product Standards (BPS)
  2. Philippine National Standards (PNS)
  3. Underwriters Laboratory (UL) and Factory Mutual (FM)
  4. International Electrotechnical Commission (IEC) 1988
  5. National Fire Protection Association (NFPA)
  6. National Fire Protection Association (NFPA) 99 Standard for Health Care Facilities.
  7. American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE).

## **II. Automatic Fire Sprinkler System**

A. The automatic fire sprinkler system shall be composed of complete plans and drawings of the following:

1. Site Development Plan and Vicinity Map, indicating the location of the buildings, firewater reserve tank, firewater line, yard loop and private fire hydrant.
2. General Notes, Legends and Symbols including Schematic Diagram of the Fire Sprinkler System and Schematic Diagram of Alarm Monitoring System.
3. Floor Layout and Isometric Layout of the Automatic Fire Sprinkler System indicating pipe sizes and the location of the pipes, valves, sprinkler heads, riser nipples, fire hose cabinets, sprinkler main riser, drain pipes, cross mains, branchlines, inspector's test connections, hangers and sway braces.

### **B. Automatic Fire Sprinkler System Requirements**

1. Sprinkler head shall be UL Listed/FM Approved, pendant, upright or sidewall unit, 83 LPM flow capacity per head and temperature fusing at 57.5° C to 74°C.
2. The alarm assembly shall be UL Listed/FM Approved, 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 signed in the vicinity of the building.
3. Alarm and supervision system of the automatic water sprinkler shall include the monitoring water flow switch at each floor of the building, fire pump and jockey pump running condition and power supplies, level of water in the reservoir and control valves.
4. Pipes shall be B.I. Schedule 40. Screw fittings shall be used for inside piping.

---End of Scheme---

**SUBJECT: ELECTRICAL DESIGN PARAMETERS**

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**I. Codes and Standards**

The Electrical System Design Parameters shall be in accordance with the following Codes and Standards.

● **Codes:**

1. Philippine Electrical Code
2. National Electrical Code
3. Fire Code of the Philippines
4. National Building Code of the Philippines and its new IRR
5. Existing Local Codes and Ordinances

● **Standards:**

1. Bureau of Product Standards (BPS)
2. Underwriters Laboratory (UL)
3. National Fire Protection Association
4. International Electrotechnical Commission (IEC)

5. Illumination Engineering Society (IES)

6. National Electrical Manufacturer's Association (NEMA)

## **II. Building Facilities Electrical System**

- Lighting System

Provide and install adequate normal branch circuits for Lighting System to all areas using the standard Lighting Design Analysis. Utilize the standard Illumination requirements per area of concern using the preferred particular type of luminaires.

- Power System

Provide and install adequate normal branch circuits for the Power System.

- Standby/Emergency System

Provide and install adequate life safety and critical emergency branch circuits for lighting or utilization equipment connected to the alternate power source.

- Auxiliary System

Provide and install the following Auxiliary System:

- a) Communication System

- Telephone System (for offices)
- Local Area Network System (where required)
- Provision for fiber optics connections

- b) Fire Alarm System

- c) Lightning Protection System

The building lightning protection system shall include roof-mounted air terminals grounding conductors, ground rods, conduits, clamps, and auxiliary equipment as required for a complete and operational lightning protection system.

## **III. Provide Details of the following:**

1. Lighting Fixtures/Luminaires
2. Panelboard and Circuit Breakers
3. Switchgear and other Metering Devices

4. Installation and Termination of Auxiliary and other Special Devices and Equipment
5. Power and Telephone Handholes (as may be required)
6. Pedestal and Service Entrance to Bldg.
7. Grounding System Layout
8. Electrical Room
9. Others as may be required.

## **V. Summary of Materials**

1. General Lighting Luminaires: Fixtures type shall be as indicated on the Lighting Layout Plan.
  - LED lights for hallways, rooms and other areas
  - Downlights and Pinlights shall be of heavy gauge spun aluminum equipped with lamp as indicated on the drawings.
  - Other Special Lighting requirements shall be as approved by the implementing agency.
2. Wiring Devices: Wiring devices shall be non-automatic control devices, the contact is guaranteed by the pressure of the special spiral springs.
  - Switches shall be of 15A, 250V or 300V except as otherwise noted and approved. Terminals shall be screw-type or quick-connected type.
  - General use receptacle shall be 15A, 240V grounding type unless otherwise indicated on the drawings.
  - Special purpose receptacles shall be as called for on the drawings. Matching plugs shall be supplied.
3. Panel boards and Circuit Breakers: The Panel board and Circuit Breakers shall be equipped with molded-case circuit breakers and shall be the type as indicated in the panel board schedule and details.
  - Provide molded-case circuit breakers of frame, trip rating and interrupting capacity as shown on the drawings. The circuit breakers shall be quick-make, quick break, thermal-magnetic, trip-indicating and shall have common trip on all multiple breakers with internal trip mechanism.
  - All current-carrying parts of the panel boards shall be plated. Provide solid neutral (S/N) assembly when required. The assembly shall be isolated from the enclosure.

4. Electrical Conduits, Boxes and Fittings: All conduits, boxes and fittings shall be standard rigid steel, zinc coated or galvanized.
  - Rigid Steel Conduits (RSC)
  - Rigid Metal Conduits (RMC)
  - Intermediate Metal Conduits (IMC)
  - Electrical Metallic Tubing (EMT)
  - Unplasticized Polyvinyl Chloride (uPVC) if required shall be schedule 40.
5. Conductors: Wires and cables shall be of the approved type and unless specified or indicated otherwise, all power and lighting conductors shall be insulated for 600 volts.
  - The conductors used in the wiring system shall be of soft-annealed copper having a conductivity of not less than 98% of that of pure copper and insulated for 60 °C Temperatures.
  - All conduits of convenience outlets and wireways for lighting branch circuit homeruns shall be wired with a minimum of 3.5 mm square in size.
6. Structured Cabling & Telephone System:
  - Final details of the system shall follow specific requirements, quantity and type of service.
7. Fire Detection and Alarm System:
  - The Fire Detection and Alarm System shall be of multiplex, microprocessor-controlled addressable or zonal conventional fire detection, alarm and communication system.
  - Actuation of the protective signaling system shall occur by manual pull station, automatic smoke or heat detector, sprinkler flow switch and tamper switch.
  - Annunciator must be per floor level
  - The system shall be able to monitor the status of flow switches and supervisory switches installed at the Sprinkler System risers. These monitoring points are also addressable or the conventional zonal in the same way as the detectors are making them easily recognizable at the control panel.
  - Occupant notification shall be accomplished automatically. Notification will be general, audible alarm type complying with appropriate section of NFPA.

- The system shall be installed with provisions for future connection to the nearest fire services station in the locality.

8. Security System:

- The Security system shall include intrusion detection and alarm, CCTV, access control or as may be required.

**---End of Scheme---**

**ANNEX A**

Name of Project : **Construction of Property Building (Design and Build Scheme)**

Location : **PSHS-BRC, Tagongtong, Goa, Camarines Sur**

Project Description : **The project consists of construction of building to accommodate supplies, equipment, and other materials for storage.**

Location within the campus : **See attached Site Development Plan**

Indicative Floor Area : **Determine from the room requirements**

Number of stories : **Two**

**Design Considerations:**

1. **Materials:** Use of quality low maintenance building finishes particularly those that are durable, non slippery, washable, non-corrosive, sound absorbent.
2. **Accessibility:** Conformance with the requirements of the Accessibility Law.
3. **Environment:** Application of design features that contribute to a healing ambience-quiet, regular, comfortable, non stressful, green, maximizing natural light and ventilation.
4. **Safety and Security:** Provision of architecture and engineering design solutions, details ornaments, appurtenances etc. that will keep students and staff protected from hazards and lower risks which they may encounter.

Approved Budget Cost : PhP 4,737,500.00

Contact Person : SEVEDEO J. MALATE

Chairperson

BIDS AND AWARDS COMMITTEE

Philippine Science High School-BRC

Tagongtong, Goa, Camarines Sur

**Notes to Prospective Bidders:**

1. All **BIDDERS** are required to register at [www.philgeps.net](http://www.philgeps.net) and kindly add your company to Document Request List (DRL) if already registered. The contract reference no. is \_\_\_\_.

2. The **PROCURING ENTITY** already provided sample forms for the **BIDDERS** to **completely & properly** accomplish the eligibility requirements listed in the checklist.
3. The **BIDDER** must provide **Table of Contents** for their documents following the sequence as stated in the Checklist of Technical & Financial Requirements.
4. The **BIDDER** must put **tabbings per title page** in their documents (e.g. DTI Registration, Mayor's Permit, and so on).
5. The **BIDDER** should submit bind documents only. Use of fasteners is not allowed.
6. The **BIDDER** or **BIDDER's authorized representative** must initial every page of the documents submitted as original and photocopied.
7. The **BIDDER** must submit their eligibility requirements in a sealed envelope with **one (1) original** and **three (3) photocopies** to the BAC *on or before the deadline specified in the IAEB*.
8. All envelope shall: *(see example below)*
  - contain the name of the contract to be bid in capital letters;
  - bear the name and address of the Bidder in capital letters;
  - be addressed to the **PROCURING ENTITY's BAC**;
  - bear the specific identification of this project indicated in the ITB Clause 10.1; and
  - bear a warning "**DO NOT OPEN BEFORE...**" the date and time for the opening of bids indicated in accordance with ITB Clause 21

<p><b>Contract Reference No. _____ - DESIGN AND CONSULTANCY SERVICES FOR THE CONSTRUCTION OF PROPERTY BUILDING</b></p> <p><b>Philippine Science High School-Bicol Region Campus</b></p> <p><b>Tagongtong, Goa, Camarines Sur</b></p> <p><b>ORIGINAL</b></p> <p><u>(NAME OF BIDDER)</u></p> <p>_____</p> <p>(ADDRESS OF BIDDER)</p> <p>_____</p> <p><b>SEVEN (7) MAI ΔΤΕ</b></p>
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Prepared by;

**JUAN S. NARVATO**

Resident Engineer

**SAMUEL S. SALES**

Project Engineer

Reviewed by:

**SEVEDEO J. MALATE**

BAC-Chair

**MARIA CECILIA A. GONZAGA**

Supervising Administrative Officer

Approved:

**LORVI B. PAGOROGON, RPAE, MHWQ**

Director III

## ***Section VII. Drawings***

*Drawings could be accessed at the school's website:*

*<https://www.brc.pshs.edu.ph>*

***Section VIII. Bill of Quantities***

# SUMMARY FOR BILL OF QUANTITIES

Name of Project : CONSTRUCTION OF PROPERTY BUILDING ( DESIGN AND BUILD SCHEME)

Location : Philippine Science High School-Bicol Region Campus,  
Tagongtong, Goa, Camarines Sur

Name of Bidder :

Date : \_\_\_\_\_

CODE / ITEM NO.	DESCRIPTION OF WORK			Amount
PART A	PRELIMINARY AND DETAILED DESIGN STAGE	1	lot	
PART B	CONSTRUCTION STAGE	1	lot	
	<b>GRAND TOTAL</b>			

Amount in Words:

\_\_\_\_\_

Submitted by:

\_\_\_\_\_  
Signature over printed name of Bidder

Date:

# BILL OF QUANTITIES

Name of Project : CONSTRUCTION OF PROPERTY BUILDING (Design and Build Scheme)  
 Bidder : \_\_\_\_\_

CODE / ITEM NO.	DESCRIPTION OF WORK	Unit	Amount
PART A	<b>PRELIMINARY AND DETAILED DESIGN STAGE</b>	L. S.	
	Preliminary and Detailed Design includes the following: 1. Surveys and investigation of site including boundaries of existing adjacent buildings, elevations and contours, 2. Detailed preparation of complete set of plans and Specifications which will be needed in the application for building permits and licences and during construction. 4. Detailed Estimates, Unit Cost Analysis, Bill of Quantities, Computation of Time Duration, Quantity Sheet  Note: This shall include design and estimates for the complete building requirements		
PART B	<b>CONSTRUCTION STAGE, Phase 1</b> Construction shall include the following items with dimensions and areas consistent with the PSHS building requirements as stated in the Terms of Reference	L. S.	Amount
	<b>A. General Requirements</b> 1. Mobilization/Demobilization 2. Temporary facilities 3. Permits, bonds, insurances, testing, billboards, etc 4. Safety and Health 5. Construction Fence and Signages 4. COA Signage	L. S.	
	<b>B. Siteworks</b> Includes excavation, backfilling and soil treatment	L. S.	
	<b>C. Concrete Works (includes cement, aggregates, reinforcing bars, scaffoldings)</b>	L. S.	
	<b>D. Masonry Works (includes plastering)</b>	L. S.	
	<b>E. Architectural Works (includes doors, windows, shelves, ceiling, carpentry, tile works, painting)</b>	L. S.	

F. Steel Works (includes railings, roof framing and roofing)	L. S.	
G. Plumbing/Sanitary Works (includes septic tank, sewer lines, down spouts, etc.)	L. S.	
H. Electrical Works (to include CCTV and paging system)	L. S.	
I. Fire Sprinkler System (partial-within the building only)	L. S.	
<b>TOTAL FOR PART "B", CONSTRUCTION STAGE</b>		

**TOTAL BID AMOUNT**

Amount in Words:

\_\_\_\_\_

\_\_\_\_\_

Prepared by:

\_\_\_\_\_

Name of Contractor

## ***Section IX. Checklist of Technical and Financial Documents***

# Checklist of Technical and Financial Documents

## I. TECHNICAL COMPONENT ENVELOPE

### *Class “A” Documents*

#### Legal Documents

- (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);  
**or**
- (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;  
**and**
- (c) Mayor’s or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;  
**and**
- (e) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

#### Technical Documents

- (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- (g) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**
- (h) Philippine Contractors Accreditation Board (PCAB) License;  
**or**  
Special PCAB License in case of Joint Ventures;  
**and** registration for the type and cost of the contract to be bid; **and**
- (i) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;  
**or**  
Original copy of Notarized Bid Securing Declaration; **and**
- (j) Project Requirements, which shall include the following:
  - a. Organizational chart for the contract to be bid;
  - b. List of contractor’s key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
  - c. List of contractor’s major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**

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

**Additional Documents under Annex "G" (Design and Build):**

- i. Preliminary Conceptual Design Plans in accordance with the degree of details specified by PSHS-BRC;
- ii. Design and Construction Methods
- iii. List of design and construction personnel, to be assigned to the contract to bid, with their complete qualification and experience data;
- iv. Value engineering analysis of design and construction method.

Financial Documents

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

**Class "B" Documents**

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

**II. FINANCIAL COMPONENT ENVELOPE**

- (o) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

- (p) Original of duly signed Bid Prices in the Bill of Quantities; **and**
- (q) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**
- (r) Cash Flow by Quarter.

***For some of the above forms, templates are provided through this link:***

***<https://www.gppb.gov.ph/downloadables.php>***



