

TERMS OF REFERENCE

FOR THE PROCUREMENT AND IMPLEMENTATION OF THE PROJECT CONSTRUCTION OF SCIENCE RESEARCH FACILITY USING THE DESIGN AND BUILD SCHEME Philippine Science High School-Central Mindanao Campus (PSHS-CMC) located in Brgy. Nangka, Balo-i, Lanao de Norte

I. BACKGROUND

The Philippine Science High School-Central Mindanao Campus (PSHS-CMC) through the approved allocation for capital outlays under the 2020 National Expenditure Program (NEP) intends to apply the sum of Five Million Forty-Seven Thousand Pesos Only (**Php 5,047,000.00**) being the approved budget for the **CONSTRUCTION OF SCIENCE RESEARCH FACILITY using the Design and Build Scheme.**

This project will construct Greenhouse and Animal Houses for agriculture instruction. These structures will serve as an instruction tool as well as a facility for delivering effective instruction to students enrolled in Agriculture subject. Furthermore, these structures will help create an opportunity for production of select animals and high value crops. This will also provide a good venue for the conduct of researches in Agriculture and its related fields.

With this, the PSHS-CMC intends to engage Architectural and Detailed Engineering Design, Consultancy and Construction expertise of a Contractor and Engineering firm/company to undertake the following designing and construction works:

A.1. Prepare and submit Design Standards in accordance with appropriate standards and accepted detailed engineering practice of PSHS System and the Department of Public Works and Highways (DPWH). Design standards for structures shall take into account, among other things, the seismicity of the area to determine the optimum safety of structures in the event of an earthquake.

A.2. Prepare and conduct Field Surveys, Investigation Reports and seek queries of the end users desired design. These field investigations shall be carried out in accordance with the design guidelines, criteria and standards adopted by the PSHS System and the DPWH. All survey and investigation works shall be prepared in a manner satisfactory to carry out accurate design and production of plans.

II. MAIN OBJECTIVES

PSHS-CMC visualizes that these facilities will strengthen the instruction delivery in Agriculture and will stimulate PSHS-CMC to produce researches in the said field of science.

III. CONCEPTUAL DESIGN

PSHS-CMC shall construct a sustainable Greenhouse and Animal House. These structures are equipped with economical yet state-of-the-art technology and materials suitable for the development of these structures. The campus shall install centralized control systems for an ideal place for growth of high value crops and production of select animals. The DESIGN AND BUILD Contractor should engage with and seek queries of the existing structure and design.

It should conform to the provisions of the National Building Code of the Philippines (PD 1096), Accessibility Law (BP 344), National Structural Code of the Philippines, Electrical Engineering Law (RA 7920), Mechanical Engineering Law (RA 5336), Fire Code (RA 9514), and other laws and regulations covering environmental concerns and local ordinances and regulations.

The following are the features

Area	Brief Description
▪ GREENHOUSE	
▪ Roofing of the Main Greenhouse area	Rigid Plastics Material
▪ Glass Wall Partition	A type of glass that match for the green house purposes
▪ Extractor/Exhaust Fan	Equipment used for renewing the air inside the greenhouse, extracting the hot air from the inside
▪ Air Circulation Fan	Efficient distribution of the air inside the greenhouse
▪ Fogging System	Misting system used for increasing the humidity and lower the temperature.
▪ Growing Benches	Transportable with metallic grid or ebb and flow bottom. Ideal for exhibition
▪ Other interior Finishes	
▪ ANIMAL HOUSE (Wood structure)	
▪ Goat/Sheep House	This will house at least 4 heads of goats or sheep
▪ Chicken House	This will house at least 20 heads (10 Layers and 10 Broilers)
▪ Rabbit House	This will house at least 10 Heads

IV. SELECTION OF DESIGN AND BUILD CONTRACTOR

The procurement and implementation of the project using the “**Design and Build**” scheme shall be in accordance with the provisions of RA 9184, specifically, its Annex G. Bidding process shall be conducted by the Bids and Awards Committee (BAC) to be assisted by the TWG. The campus director of PSHS- CMC shall create the Design and Build Committee (DBC) to be composed of highly technical personnel in the field of architecture and engineering/construction. The DBC and TWG shall prepare the design brief and performance specifications and parameters, review the detailed engineering design, and assist the BAC in the evaluation of technical and financial proposals in accordance with the criteria set.

A. Eligibility Requirements

The eligibility requirements in the Design and Build for infrastructure projects shall comply with the applicable provisions of Section 23-24 of the IRR of RA 9184.

a. Eligibility Documents

Class “A” Documents

- i. PhilGEPs Certificate of Registration and Membership (Platinum)
 - ii. 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
- iii. Single Largest Completed Contract (SLCC)
- iv. PCAB licenses and registration for the type and cost of the contract for this project.
- v. Construction Safety and Program Approved by Department of Labor and Employment.
- vi. NFCC computation.

Class “ B “ Documents

a. Joint Venture Agreement, if applicable.

b. Technical Documents

- i. Bid Security (in any form)
- ii. Project Requirements
 - ii1. Preliminary Conceptual Design Plans in accordance with the degree of details specified by the procuring entity.
 - ii2. Design and Construction Method

ii3. 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.

ii4. Organizational Chart

ii5. List of Contractor's Personnel with complete qualification and experience data

ii6. 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.

ii7. Manpower Schedule

ii8. Equipment Utilization Schedule

ii9. Bar Chart and S-curve

ii10. Construction Safety and Health Program

ii11. PERT-CPM

iii12. Omnibus Sworn Statement

c. Financial Component

i. Financial Bid Form

ii. Bill of Quantities

iii. Summary Sheet Detailed Unit Cost Analysis (DUPA)

iv. Detailed Unit Cost Analysis per item

v. Term of references to be used in construction (General Requirements and Specifications of Materials)

vi. Payment Schedule

B. Eligibility Criteria

a) The eligibility of design and build contractors shall be based on the legal, technical and financial requirements above-mentioned. In the technical requirements, the design and build contractor (as solo or in joint venture/consortia) should be able to comply with the experience requirements under the IRR of RA 9184, where one of the parties (in a joint venture/consortia) should have at least one similar project, both in design and construction, with at least 50% of the cost of the Approved Budget for the Contract (ABC).

b) If the bidder has no experience in design and build projects on its own, it may enter into subcontracting, partnerships or joint venture with design or engineering firms for the design portion of the contract.

- c) The relevant provisions under Section 23.5.2 of the IRR of RA 9184 on eligibility requirements shall be observed.

V. DESIGN PERSONNEL

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

A. Agricultural Engineer

The Agricultural Engineer must be duly-licensed with at least five (5) year experience in the designing agricultural facilities and laboratories. He / She must also provide a portfolio of completed Construction of his/her Designs on agricultural facilities and laboratories

B. Electrical Engineer

The Electrical Engineer must be a registered Electrical Engineer with at least five (5) year experience in the design of lighting, power distribution, communication systems.

C. CAD operator / Draftsman

The CAD operator / Draftsman must have at least two (2) year experience in CAD works, 3D Sketching and Rendering.

The key professionals listed are required. **The DESIGN & BUILD CONTRACTOR** may, as needed and at its own expense, add additional professionals and/or support personnel for the optimal performance of all Architectural and Engineering Design Services, as stipulated in these Terms of Reference for the PROJECT. Prospective bidders shall attach each individual's resume and PRC license of the (professional) staff.

VI. CONSTRUCTION PERSONNEL

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

A. Civil Engineer

The Civil Engineer shall be a duly-licensed Civil Engineer with at least five (5) years of experience in similar and comparable projects.

B. Electrical Engineer

The Electrical Engineer must be a registered 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.

H. Foreman

The Foreman must have at least five (5) years of experience in similar and comparable projects.

I. Safety Officer

The safety officer must have undergone the prescribed 40- hour Construction Safety and Health Training (COSH).

The above key personnel listed are required. The **DESIGN & BUILD CONTRACTOR** may, as needed and at its own expense, add additional professionals and/or support personnel for the optimal performance of all Construction Services, as stipulated in this Scope of Work, for the PROJECT. Prospective bidders shall attach each individual's resume and PRC license of the (professional) staff, proof of qualifications, and related documents as necessary.

There shall be no replacement of identified Architect and/ or Structural Engineer assigned in the project until after fifty percent (50%) of the personnel man-months have been served, except for justifiable reason/s. Any replacement shall be approved by the Head of the Procuring Entity (HOPE).

G. Labor

It is understood that the work shall be done and executed in accordance to the good engineering methods and practices.

The Contractor shall and thereby warrants all work performed by him directly and for which guarantee are required. The Contractor shall and thereby warrants and/or guarantees for a period of one year, or for longer periods where so provided in this Specifications, an evidenced by date of final certificate issued by the Architect, all materials and workmanship installed under Contract to be of good quality in every respect and to remain so for periods described herein.

Such any defects develop in aforesaid work, within the specified periods, due to faults in material and/or workmanship, the Contractor thereby agrees to make all repairs and do all necessary work to correct defective work to the Architect's satisfaction. Such repairs and corrective works shall be done without cost to the Owner and at entire cost and expense of the Contractor.

VII. Equipment

1-UNIT WELDING MACHINE

1-UNIT MINI DUMPTRUCK

1-UNIT MINIMUM OF 25KWATT Generator Set

1-LOT OF SCAFFOLDINGS (Metal)

VIII. PRELIMINARY DESIGN AND CONSTRUCTION STUDIES

No bidding and award of design and build contracts shall be made unless the required preliminary design and construction studies have been sufficiently carried out and duly approved by the Head of the Procuring Entity that shall include, among others, the following:

- i. Project description
- ii. Conceptual Design
- iii. Performance Specifications and Parameters
- iv. Preliminary Investigations
- v. Utility Locations
- vi. Approved Budget for the Contract
- vii. Proposed Design and Construction Schedule
- viii. Tender/Bidding Documents, including Instructions to Bidders and Conditions of Contract

The above data are for reference only. The procuring entity does not guarantee that these data are fully correct, up to date, and applicable to the project at hand. The contractor is responsible for the accuracy and applicability of all data, including the above, that it will use in its design and build proposal and services.

IX. DETAILED ENGINEERING REQUIREMENT

1. Upon award of the design and build contract within a period of 20 Calendar Days, the winning bidder shall be responsible for the preparation and submission of all necessary detailed engineering investigations, surveys and designs in accordance with the provisions of Annex "A" of the IRR of R.A. 9184 (with the exception of the Bidding Documents and the ABC).

2. The procuring entity shall ensure that all the necessary schedules with regard to the submission, confirmation and approval of the detailed engineering

design and the details of the construction methods and procedures shall be included in the contract documents.

3. The procuring entity shall review, order rectification, and approve or disapprove – for implementation only - the submitted plans within these schedules. All instructions for rectification shall be in writing stating the reasons for such rectification. The design and build contractor shall be solely responsible for the integrity of the detailed engineering design and the performance of the structure irrespective of the approval/confirmation by the procuring entity.

X. SCOPE OF WORK & SERVICES

A.1. PRE-CONSTRUCTION PHASE

Submit a desirable Architectural and Detailed Engineering plan for the proposed construction/ development project that is compliant with the minimum building and design specifications of PSHS.

A.1.1. Prepare and Conduct Field Surveys, Investigation Reports and seek queries of the end users desired design.

A.1.2. Prepare a complete set of preliminary architectural drawing consisting of the Plans and 3D sketches of the proposed expansion and renovation of the library which will be presented for the review and approval of Philippine Science High School – Central Mindanao Campus (PSHS-CMC)

A.1.3. Upon approval by PSHS-CMC, the contractor shall prepare detailed engineering activities for construction/ development project that shall include the following:

A.1.3.1. Preparation of Complete Plans includes architectural, structural, electrical, 3D sketches of Design and Term of Reference.

A.1.3.2. Preparation of Bill of Materials and Cost Estimates

A.1.3.3. Preparation of Detailed Unit Price Analysis (DUPA)

A.1.3.4. Preparation of Term of Reference/Technical Specification to be used in the construction.

A.1.3.5. Preparation of PERT-CPM/ Gantt chart and Estimated Cash Flow

A.1.3.7. Provide all the necessary documents needed for Building Permit purposes.

A1.4. The CONTRACTOR shall submit to the PSHS-CMC within Sixty (60) Calendar days from receipt of the Notice to Proceed (NTP), the detailed approach, work plan and schedule,

A.2. CONSTRUCTION PHASE

A.2.1. The CONTRACTOR shall undertake the construction of the said Project in accordance with the plans and specifications in the Terms of Reference for the Design and Build

A.2.2. The CONTRACTOR shall furnish all the construction materials needed for the execution of the work to include manpower, equipment, tools and other incidentals necessary to complete the works in accordance with the construction drawings, technical specifications as enumerated herein;

A.2.3. Details, which may be needed to implement the plans and specifications, shall be furnished by the OWNER and shall be implemented by the CONTRACTOR at no extra cost to the OWNER, provided that the said details are consistent with the intent of the Contract documents.

A.2.5. Provide all other necessary documents that shall be required by PSHS-CMC

A.2.6. Details, which deviate from the bid plans and specifications and are inconsistent with the intent of the Contract documents, shall be implemented by the CONTRACTOR subject to negotiation pursuant to **Section M**.

A.2.7 The CONTRACTOR shall administer the works in accordance with the stipulated terms and conditions herein specified and in accordance with R.A. 9184.

A.3. POST CONSTRUCTION PHASE

A.3.1. Conduct final inspection with the PSHS-CMC and Contractor.

A.3.2. Certify completion of works in accordance with the approved plans and specifications and recommend the issuance of certificate of completion after final inspection and acceptance.

A.3.3. Assist the Philippine Science High School and the contractor(s) on the preparation and submission of all forms and supporting documents required by the concerned government agencies.

A.3.4. Preparation of as-built plans where necessary.

XI. SUBMITTALS AND OTHERS

The Contractor and Engineering firm/company shall prepare and submit the following reports:

D.1. Three (3) sets of Preliminary drawings and design reports.

D.2. Three (3) sets of Final drawings including all supporting analyses, complete construction drawings and as to what is mention in **Section X.A.1.3 for construction**. Additional copies requested by the Owner shall be charged separately.

D.3. Three (3) set of As Built drawings and a digital copy

D.4 Contract Time Extension Endorsement

D.5 Variation Order Endorsement

D.6 Acceptance Documentary Requirements

XII. DURATION OF CONTRACT

The CONTRACTOR shall complete the project within one hundred eighty (180) calendar days from signing of the Contract.

E.1. Component I – Field Study, Investigation and Preliminary Drawings

E.1.1. Referring to **Section X.A.1.1. and X.A.1.2** of this document.

Within **Twenty (20) calendar days** (including approval of the preliminary drawings) from receipt of Notice to Proceed.

E.2. Component II - Architectural and Detailed Engineering Design

E.2.1. Submission of plans and detailed engineering activities for construction/ development project as refers to **Section X. A.1.3**

Within **Forty (40) calendar days** (including acceptance plans and detailed engineering activities) from the completion of the approved Field Study, Investigation and Preliminary Drawings.

E.3. Component III – Project Construction and Supervision

E.3.1 The Construction and Supervision of the project is **Within One Hundred Twenty (120) calendar days** from the Submission of plans and detailed engineering activities

XIII. CONTRACT PRICE AND MANNER OF PAYMENT

I.1 DESIGN PHASE

Complete preparation and submission of construction drawings, specifications, tender and other related documents (*refer to Section X. A.1.1-A.1.3*) the lump-sum amount of ***Two hundred fifty-seven thousand five hundred Pesos (Php 257,500.00)***.

This will be paid in the following manner;

PAYMENT SCHEDULE	GROSS AMOUNT	ACCUMULATIVE GROSS AMOUNT OF PAYMENT
Upon Conducting Field Surveys, Investigation Reports and seek queries of the end users desired design, 10% of the lump-sum amount	Php 25,750.00	Php 25,750.00
Upon presentation and approval of preliminary architectural drawing consisting of the Plans and 3D sketches, 30% of the lump-sum amount	Php 51,500.00	Php 77,250.00
Upon submission and acceptance Upon approval by PSHS-CMC, detailed engineering activities for construction/ development project (<i>refer to Section X. A.1.3</i>), 100% of the lump-sum amount	Php 154,500.00	Php 257,500.00

I.2 CONSTRUCTION PHASE

For and in consideration of the faithful and complete performance and accomplishment of all the obligations specified under Section X.A.1.3, the OWNER shall pay the CONTRACTOR the Contract price amount of ***Four Million Seven hundred eighty-nine Thousand five hundred Only (Php 4,789,500.00)***.

The CONTRACTOR hereto guarantees that for the construction and work covered herein, the OWNER shall not incur any additional expenses or be required to pay any sum beyond the said amount except for any addition or extra work that may be required and authorized in writing by the OWNER.

The above Contract Price is all inclusive of the Twelve Percent (12%) Expanded Value Added Tax (E-VAT) as required by the Bureau of Internal Revenue Code.

The Contract Price is not subject to any escalation regardless of the increase in materials, labor, taxes, licenses, fees, and of inflation, devaluation or depreciation of the Philippine Currency.

This will be paid in the following manner;

PAYMENT SCHEDULE	GROSS AMOUNT	ACCUMULATIVE GROSS AMOUNT OF PAYMENT
MOBILIZATION FEE, 15% of the construction amount. The mobilization fee shall be in one time deduction from the First Progress Billing	Php 718,425.00	Php 718,425.00
FIRST PROGRESS BILLING, 25% accomplishment <u>One Time Deduction – Mobilization Fee</u>	Php 478,950.00	Php 1,197,375.00
SECOND PROGRESS BILLING, 45% accomplishment	Php 957,900.00	Php 2,155,275.00
THIRD PROGRESS BILLING 65% accomplishment	Php 957,900.00	Php 3,113,175.00
FOURTH PROGRESS BILLING, 85% accomplishment	Php 957,900.00	Php 4,071,075.00
FINAL PROGRESS BILLING 100% accomplishment	Php 718,425.00	Php 4,789,500.00

XIV. TERMS OF PAYMENT

1 Mobilization Fee. The OWNER shall upon written request of the CONTRACTOR which shall be submitted as a Contract document, pay the mobilization fee to the CONTRACTOR in an amount equal to Fifteen Percent (15%) of the total Contract price for Civil Works (**Section 1.2**) to be made in lump sum. The mobilization fee shall be made only upon submission the contractor and acceptance by the OWNER of an irrevocable standby letter of credit of an equivalent value from a commercial bank, a bank guarantee or a surety bond, callable on demand, issued by a surety or insurance company duly accredited by the Insurance Commission and confirmed by the OWNER. The mobilization fee shall be repaid by the CONTRACTOR by a one-time deduction from their First Billing.

2. As per Accomplishment Progress Payment. The OWNER shall pay the CONTRACTOR by the percentage of the job accomplished as stipulated in **Section 1.1. and 1.2.** For this purpose, a statement showing the actual job accomplished shall be submitted by the CONTRACTOR for the evaluation and endorsement of the Resident Engineers, and the written approval of the OWNER, the OWNER shall make the corresponding payment within forty-five (45) calendar days from the endorsement of the Resident Engineer and the approval of the Owner, less the advance mentioned above (one-time deduction in First progress billing only). The OWNER is not bound by any endorsement made to the Materials and equipment delivered on the site but not completely utilized/installed, except as otherwise stipulated in the Contract documents and this agreement shall not be included for payment. Building permit, Electrical and sanitary permits will be required for submission for their first progress payment

3. Final Payment shall be made after full and final completion of the work as duly certified by the Resident Engineer for the approval and acceptance of the Owner's representative. Upon receipt of written notice from the CONTRACTOR that the work is ready for final inspection and acceptance, the Resident Engineer and the duly authorized representative of the OWNER shall promptly make such inspection, and if found that the work is worthy of acceptance under the Contract and the Contract is fully performed, they shall promptly issue a final Certificate of Acceptance over their signatures stating that the work provided for in this Contract has been completed and is accepted by then under the terms and conditions thereof, and that the entire balance found to be due to the CONTRACTOR and noted in said certificate and payable as above provided, within forty five (45) calendar days therefrom, subject to the submission of the Certificate of Completion. Before issuance of final certificate of completion, the CONTRACTOR shall submit satisfactory evidence to the Resident Engineer and the OWNER that all payroll, materials, bills and other indebtedness incurred in connection with or for the prosecution of work have been fully paid, and upon submission of the following documents, all at the expense of the Contractor:

1. All original and revised plans duly approved
2. Three (3) sets of duly approved As Built drawings and a digital copy

3. Retention Money. The Ten Percent (10%) Retention shall be made in each succeeding payment to serve as a reserve fund for defects which may occur within one year. The amount shall be deposited in the name of the Contractor and the owner, in the bank chosen by the owner and shall only be released upon correction of all the identified defects. The total Retention money shall be due for release upon Final Acceptance of the Works. The CONTRACTOR may, however, request the substitution of the Retention Money for each progress

billing with irrevocable standby letters of credit from a commercial bank, bank guarantees or surety bonds callable on demand, of amounts equivalent to the Retention Money substituted for and acceptable to government, provided that the Project is on schedule and is satisfactorily undertaken. Otherwise, the ten percent (10%) Retention shall be made.

In addition to the retention stated above, an amount representing the withholding tax shall be deducted from the progress billing filed by the CONTRACTOR.

The following documents must be submitted to the D&B Committee before processing of payments to the DESIGN & BUILD CONTRACTOR can be made:

- i. Progress Billing
- ii. Detailed Statement of Work Accomplished (SWA)
- iii. Request for payment by the DESIGN & BUILD CONTRACTOR
- iv. Pictures/photographs of work accomplished
- v. Payment of utilities (power and water consumption)
- vi. DESIGN & BUILD CONTRACTOR's affidavit

The acceptance of work from time to time for the purpose of making progress payment shall not be considered as final acceptance of the Work under this Contract.

XV. COMMENCEMENT AND TIME COMPLETION

The Contract shall take effect on the date of receipt of the Notice to Proceed from the OWNER. The CONTRACTOR shall commence execution of the Project within seven (7) calendar days from receipt of Notice to Proceed from the OWNER will considered as the contract start date and shall finish and complete the project within one hundred fifty (150) calendar days.

It is agreed that the time is an essential element of this Contract and therefore, the construction must be completed one hundred fifty (150) calendar days' contract start date. Otherwise, the CONTRACTOR must pay the OWNER the amount stated in the Revised Implementing Rules and Regulations of R.A. 9184, as liquidated damages until the day the unfinished work is completed.

For this purpose, it is hereby agreed and understood that the CONTRACTOR expressly authorizes the OWNER to deduct the amount of such damages from any monies due to or which may be become due to the CONTRACTOR, without prejudiced to the other methods of recovery. The payment of deduction of such damages shall not relieve

the CONTRACTOR from his obligation to complete the work or any other obligations and liabilities under this Contract.

XVI. CODES AND STANDARDS

The project shall be designed, engineered, installed, tested, commissioned and handed over in conformity with the Building and Design Standards of the PSHS System and with the latest editions of the National Building Code of the Philippines, the National Structural Code of the Philippines, the Philippine Electrical Code, Philippine Mechanical Code, the National Plumbing Code of the Philippines, National Fire Code of the Philippines and other relevant codes and standards.

XVII. INSTALLATION AND WORKMANSHIP

Personnel of the DESIGN & BUILD CONTRACTOR should be specialists highly skilled in their respective trades, performing all labor according to first-class standards. A full time Project Engineer/Architect and Construction Safety Engineer shall be assigned by the DESIGN & BUILD CONTRACTOR at the job site during the construction of the project.

All work to be subcontracted shall be declared by the DESIGN & BUILD CONTRACTOR and shall be approved by the Campus Director of PSHS-CMC. However, subcontracting of any portion shall not relieve the design and build contractor from any liability or obligation that may arise from the contract for this project.

Tapping for utilities such as power supply, water supply and sewage drainage shall be coordinated with their respective utilities/ service provider/ companies, and all works involved, including access to utilities tapping point, excavation, removal of obstructions, concrete breaking, backfilling and restoration of affected areas, shall be coordinated and included in the scope of work and cost of the project.

Any errors, omissions, inconsistencies, inadequacies or failure submitted by the DESIGN & BUILD CONTRACTOR that do not comply with the requirements shall be rectified, resubmitted and reviewed at the DESIGN & BUILD CONTRACTOR'S cost. If the DESIGN & BUILD CONTRACTOR wishes to modify any design or document which has been previously submitted, reviewed and approved, the DESIGN & BUILD CONTRACTOR shall notify the procuring entity within a reasonable period of time and shall shoulder the cost of such changes.

XVIII. MATERIALS

All materials and equipment shall be standard products of manufacturers engaged in the production of such materials and equipment and shall be the manufacturer's latest standard design.

The materials and workmanship supplied shall be of the best grade and constructed and/ or installed in a practical and first class manner. It will be completed in operation, nothing being omitted in the way of labor and materials required and it will be delivered and turned over in good condition, complete and perfect in every respect.

All materials shall be in conformance with the latest standards and with inspection and approval of the Campus resident engineers

XXIX. LIQUIDATED DAMAGES

In the event that the CONTRACTOR refuses or fails to satisfactorily complete the work within the time herein specified, plus any time extension duly granted, and is hereby in default under the Contract, the OWNER is hereby authorized to impose the liquidated damages under the Revised Implementing Rules and Regulations of R.A. 9184, without having to prove that it has incurred actual damages. The CONTRACTOR agrees to pay the OWNER for liquidated damages and not by way of penalty an amount to be determined in accordance with the formula prescribed under R.A. 9184, until the work is completed and accepted or taken over by the OWNER.

Said liquidated damages maybe deducted from any money due or which may become due to the CONTRACTOR under the Contract and/or collect such liquidated damages from the retention money or other securities posted by the CONTRACTOR whichever is convenient and expeditious to the OWNER.

XXX. CHANGES AND ADDITIONS

If the OWNER shall, must be in document, require any deviation from the Plans and Specification or require that any work described in the Plans and Specifications be omitted, then the CONTRACTOR will carry out such requirements of the OWNER and shall perform the additional / deductive work in a thorough manner to the satisfaction of the OWNER within the time prescribed.

The Contractor shall compute the cost of the added to or deducted from the Contract Price, whichever the case may be, for the approval of the OWNER and shall be executed under the conditions hereof and the Contract Documents as prescribed by RA 9184.

- a. 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 any design or document which has been previously submitted, reviewed and approved, the contractor shall notify the procuring entity within a reasonable period of time and shall shoulder the cost of such changes.
- b. 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:
 - i. 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 procuring entity.
 - ii. Provided that the contractor suffers delay and/or incurs costs due to changes or errors in the procuring entity's performance specifications and parameters, he shall be entitled to either one of the following:
 - a. an extension of time for any such delays under Section 10 of Annex "E"; or
 - b. Payment for such costs as specified in the contract documents, provided, that the cumulative amount of the variation order does not exceed ten percent (10%) of the original contract

XXXI. THE IMPLEMENTING AGENCY'S GENERAL RESPONSIBILITY

The implementing agency for the project is the Campus Director of PSHS- CMC with final approval for all decisions and actions from the PSHS System Office of the Executive Director through the Design and Build Committee. The D&B Committee shall:

- a) Prepare the design brief for the project in accordance with PSHS Systems' policies, existing codes, traditions, standards, and the conditions and design criteria enumerated in the Terms of Reference.
- b) Coordinate with DESIGN & BUILD CONTRACTOR, and the Campus Director of PSHS-CMC with regard to the design and implementation of the project.
- c) Assist in the coordination of the DESIGN & BUILD CONTRACTOR with various utility agencies during the detailed design and implementation phases of the project.
- d) Conduct regular coordination meetings between the DESIGN & BUILD CONTRACTOR and PSHS-CMC to facilitate the implementation of the project.

XXXII. THE DESIGN & BUILD CONTRACTOR'S GENERAL RESPONSIBILITY

- a) The DESIGN & BUILD CONTRACTOR shall certify that he has, at his own expense, inspected and examined the proposed project site, its surroundings and existing infrastructure and facilities related to the execution of the work and has obtained all the pieces of information that are considered necessary for the proper execution of the work covered under these Terms of Reference.
- b) The DESIGN & BUILD CONTRACTOR shall ensure that all works at the stages of design, construction, restoration of affected areas, and testing and commissioning shall be carried out efficiently and effectively.
- c) The DESIGN & BUILD CONTRACTOR shall provide PSHS- CMC with complete reports such as technical analysis, maps and details regarding the existing conditions and proposed improvements within the site.
- d) The DESIGN & BUILD CONTRACTOR shall consider the academic calendar and critical dates and occasions within PSHS- CMC, in order to align his work schedule with the academic calendar of the school to avoid unnecessary disruption of school activities due to construction activities such as closure of water and power supply and non-usage of the existing roads.
- e) The DESIGN & BUILD CONTRACTOR shall inform PSHS- CMC of critical events during construction, especially when such events can potentially disrupt school activities.
- f) The DESIGN & BUILD CONTRACTOR shall be PCAB accredited and shall have a Construction Safety and Health Program approved by DOLE and designed specifically for the DESIGN AND BUILD SERVICES FOR THE CONSTRUCTION OF THE ADMINISTRATION BUILDING.
- g) The DESIGN & BUILD CONTRACTOR will be held accountable for accidents that might occur during the execution of the project. The DESIGN & BUILD CONTRACTOR is required to install warning signs and barriers for the safety of the general public and the avoidance of any accidents and provide appropriate and approved type personal protective equipment for their construction personnel.
- h) The DESIGN & BUILD CONTRACTOR shall be professionally liable for the design and shall submit a signed and sealed copy of the approved construction documents to form part of the Contract Documents.
- i) Only the plans approved by the Head of Procuring Entity (HOPE) shall be signed and sealed by the DESIGN & BUILD CONTRACTOR, and thereafter shall be the plans used for construction.

j) All works designed and constructed should be guaranteed to seamlessly fit into the overall system general design standards of the PSHS System.

XXXIII. CONTRACTOR'S LIABILITIES

It is hereby agreed and understood that no employer-employee relationship exists between the OWNER and the CONTRACTOR, and all laborers, workers, employees and staff of the CONTRACTOR are not in any way connected with the OWNER and there exists no employer-employee relationship between the OWNER and the said laborers/employee and staff of the CONTRACTOR.

The CONTRACTOR hereby agrees to shoulder and answer all claims of any nature, whether for death, injuries or damages that may be suffered by CONTRACTOR's workers and / or by third parties, arising from or in connection with the performance of the work. The CONTRACTOR shall at all times stand solely liable and / or responsible for compliance with all existing rules and regulations and the CONTRACTOR agrees and binds itself to save and hold the OWNER harmless from any and all liabilities in respect thereto or arising therefrom. Despite of all the foregoing, should the OWNER be held liable whatsoever for any claim, the CONTRACTOR hereby undertakes to indemnify the OWNER for whatsoever amount it was ordered to pay the CONTRACTOR's workers or employees upon demand.

For this purpose, the CONTRACTOR binds itself to protect and immune the OWNER from any suit or liability arising from the above claims. The CONTRACTOR shall strictly follow the provision on safety, security and protection of the environment stipulated in the Contract documents and those provided under the National Building Code and the Labor Code.

XXIV. PERFORMANCE SECURITY

The CONTRACTOR upon signing of the CONTRACT shall post a Performance Security as contained in the Instruction to Bidders, as a guarantee for the CONTRACTOR's faithful performance of the Contract work and to cover payments and obligations arising from this agreement. Such performance security shall remain and continue to be in full force and effect and shall cover the period from the Time of the signing of the CONTRACT until the Final Acceptance of the Project by the OWNER in accordance with the Government Procurement Policy Board (GPPB) Resolution No. 12, provided that the CONTRACTOR has submitted to the OWNER the Warranty Security stipulated under ARTICLE 14 of this Agreement. Coverage of the performance security shall include the defects liability of one (1) year and shall be due for release only after the Certificate of Acceptance is issued by the OWNER.

XXXV. DEFECTIVE WORK AND MATERIALS

Defective work shall be made good, and unsuitable materials shall be rejected notwithstanding that such work and materials have been overlooked by the Resident Engineer and the Owner and accepted or estimated for payment. If the work or any part thereof shall be found defective at any time before the final acceptance of the whole work, the CONTRACTOR shall forthwith make good such defect in the manner satisfactory to the Resident Engineer and the OWNER. If there is any material that is brought to the site for use in the work or selected for, that is not in conformity with specifications, the CONTRACTOR shall forthwith remove such material from the project site; and any materials furnished which are damaged or rendered defective by the handling of or improper installation by the CONTRACTOR, his agents or his employees, shall be made good and replaced at the CONTRACTOR's expense. The provision is without prejudice to Article 1723 of the Civil Code of the Philippines which is hereby incorporated as part of this Contract.

Any part of the work done which is not of the quality required by or acceptable to the Resident Engineer and the OWNER shall be torn down or removed immediately and rebuilt in accordance with the requirements of the Plans and Specifications without any liability on the part of the OWNER to pay any additional cost incurred by the CONTRACTOR in accordance therewith. Should the CONTRACTOR neglect or delay the correction of faulty works, the OWNER may employ and pay other persons to make good such deficiencies. It is agreed that all expenses consequent thereof or incidental thereto shall be incurred without need of prior consent approval of the CONTRACTOR. Such expenses shall be for the CONTRACTOR's sole account and deducted from any monies due to which may become due to the CONTRACTOR, or any other manner provided in this Contract or under applicable laws.

The CONTRACTOR shall be deemed negligent or in delay, if he fails to commence correction of deficiencies within three (3) days from his receipt of written notice from the Resident Engineer and/or OWNER.

XXXVI. SUSPENSION AND TERMINATION

Disputes. Any dispute concerning any question arising from this Contract which is not disposed of by agreement between the parties, shall be decided by the OWNER's representative who shall furnish the CONTRACTOR a written copy of its decision.

Arbitration. The decision of the OWNER's representative shall be final and conclusive unless within thirty (30) days from the date of receipt thereof, CONTRACTOR shall deliver to the OWNER a written notice addressed to the OWNER's representative

stating its desire to submit the controversy to arbitration. In such event, the dispute shall be decided in accordance with Philippine laws (Executive Order No. 1008).

Enforcement. Decisions reached by arbitration maybe enforced by either of the parties to this Contract in any court of competent jurisdiction in the Philippines. In case of suit arising in connection with the terms of this Contract, the parties hereto, expressly submit to the jurisdiction of the said court.

Termination. If the CONTRACTOR shall breach any warranty made, violate any of the terms and conditions in this Contract, and/or related Contract documents or neglect to perform any of his Contractual obligations, the OWNER may give written notice to perform such obligation or make good his warranty and should he fail to do so within Seven (7) days from receipt thereof, and if the Architect shall certify to such failure, this shall be sufficient ground for the OWNER to take-over and complete the work comprehended under this Contract, and to use or authorize such other Contractor or person to use any tools, materials, equipment and any other property of the CONTRACTOR. However, the CONTRACTOR shall be entitled to payment under this Contract only in the event that the amount of the estimated cost remaining unpaid shall exceed the expenses incurred by the OWNER up to such excess plus Five Percent (5%) thereof as penalty. But should the balance be less than the aforementioned expenses for the completion of the construction plus Five Percent (5%) thereof as penalty, the CONTRACTOR shall pay the amount of such additional expenses to the OWNER, or of any monies due to the CONTRACTOR or the Performance Bond.

XXXVII. RESPONSIBILITIES OF THE CONTRACTOR

The CONTRACTOR does hereby warrant and guarantee that all the materials to be supplied by him under this Contract are new, first class, free from defects and shall be fully complying in every respect with the specifications, approved samples and other requirements of the Contract plans and other related Contract documents. The CONTRACTOR shall make no substitution for materials required by him under this Contract unless written approval is first obtained from the OWNER.

The CONTRACTOR shall diligently supervise the construction until completion and he shall have, on a full-time basis, a competent project architect who shall act as Project Supervisor.

The OWNER reserves the right to reject for reasonable cause any person or persons employed by the CONTRACTOR in the construction work and the omission of the OWNER to exercise such right shall not in any way relieve the CONTRACTOR from his responsibility to fulfill his undertakings.

All Sub-Contractors to be used if any, shall require the OWNER prior approval.

The CONTRACTOR shall fully coordinate with all Contractors of other building trade of their jurisdiction.

The CONTRACTOR shall provide storage and delivery facilities for testing of concrete, CHB, steel bar and other material samples required for the Project. Cost of testing for concrete and steel shall be paid by the CONTRACTOR. Testing shall be done by a testing laboratory acceptable to the OWNER.

Temporary facilities such as bunkhouses, toilet facilities, power, water, telephone and security shall be for the sole account of the CONTRACTOR. In case more than one (1) Contractor is involved in the Project, the expenses shall be prorated based on their respective Contract Price.

The CONTRACTOR further guarantees to restore the orderly condition of the immediate premises after the completion of the construction, removing all landfills, temporary make-shifts, and such other obstruction that were built due to the construction work. If the CONTRACTOR fails to clear obstruction and clean the premises after the completion of the construction work, the OWNER may opt to fulfill the CONTRACTOR's obligation and deduct whatever expenses he (the OWNER) has incurred from any monies due to the CONTRACTOR.

The CONTRACTOR shall prepare a tarpaulin signboard and must be suitably framed for outdoor display at the project location, and shall be posted as soon as the award has been made.

XXXVIII. GENERAL PROVISIONS

Supplementary Use of Contract Documents. The bid documents shall be supplementary to this Contract. In case of conflict between the Bid Documents and the Contract, the later shall prevail, unless it is very evident that the former is correct. Any and all deficiencies in the provisions of this Contract intended to be covered hereby or otherwise connected with or related to the Project covered hereby, but not expressly covered by the provisions of this Contract shall be supplied by the Pertinent Provisions of the Bid/tendered documents and shall be binding for purposes of this Agreement

Compliance with Law Ordinances etc. The CONTRACTOR shall comply with all the laws ordinances and regulations of both the national and local government applicable to or binding upon the parties hereto, the works covered by this Agreement, or the persons engaged on the performance and accomplishment of the works covered by this Agreement and shall be totally responsible for all damages either to the OWNER or to the government, national or local, for the non-observance of such laws, ordinances and regulations.

Modification. No modification including transfer or assignment or sub-contracting of any right or obligation under the terms of this agreement shall be valid unless mutually agreed upon in writing by the parties herein.

Substantial Completion. There shall be Pre-Final Inspection which shall be jointly conducted when the actual percent accomplishment reached to 95%. Identified defects must be rectified and completing the remaining works for and in consideration of Substantial Completion.

Prepared by:

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Recommending Approval:

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Approved:

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