TECHNICAL SPECIFICATIONS

COMPLETION OF ACADEMIC BUILDING II
PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGION CAMPUS
BARANGAY RIZAL, ODIONGAN, ROMBLON

I. BACKGROUND

The **PHILIPPINE SCIENCE HIGH SCHOOL-MIMAROPA Region Campus (PSHS-MRC)** through the approved allocation for capital outlays under General Appropriations Act (GAA) of 2024 intends to apply the sum of **THIRTY-EIGHT MILLION PESOS ONLY (₱38,000,000.00)** being the approved budget of the contract for the implementation of the project **Completion of Academic Building II** with the project duration of Two Hundred Forty **(240)** calendar days**.**

II. PROJECT DESCRIPTION AND LOCATION

The project, Completion of Academic Building II, is the continuation of Phase I and Phase II of the same project of Philippine Science High School - MIMAROPA Region Campus, Rizal, Odiongan, Romblon pursuant to the Technical Specifications, indicated herein.

This will include the following major scope of works:

(a) C.0 - General Requirements
(b) C.3 - Architectural Works
(c) C.4 - Electrical Works
(d) C.5 - Auxiliary Works
(e) C.6 - Plumbing and Sanitary Works
(f) C.7 - Mechanical Works
(g) C.8 - Fire Protection System

(Please refer to the annexes for the attached drawings).

The project will have an Approved Budget for the Contract (ABC) of **THIRTY-EIGHT MILLION PESOS ONLY (₱ 38,000,000.00)** including all taxes and applicable permits, licenses and clearances, for the projects mentioned above.

III. CONSTRUCTION PHASE

A. SCOPE OF WORKS:

The proposed Completion of Academic Building II is a four-level building including one-level basement reinforced concrete building with a total floor area of 3,658.3 sq.m. This project is a continuation of Phase I and Phase II construction which includes the Site Works, Structural Works, Architectural finishes including utilities for

ground floor and second floor, and roughing-ins of utilities for basement floor and third floor.

The construction shall include the following major scope of works:

Item No.	Description	
C.0	**General Requirements**	Mobilization/ Demobilization
		Permits, Licenses, Clearances, etc.
		Bonds and Insurances
		Temporary facilities for Contractor
		Health Safety Requirements
		Temporary Enclosure / board-up
		As-Built Plan
		Project Billboard
C.3	**Architectural Works**	
	Basement to Ground Floor	
	Masonry Works/Drywall Partition	Skimcoating
	Finishes	Floor Finishes (Basement Floor)
		Wall Finishes (Basement Floor)
		Ceiling Finishes (Basement to Ground Floor)
	Painting Works	Elastomeric paint finish on plastered wall
		Latex semi-gloss paint finish on plastered wall
		Semi-gloss paint finish on gypsum board wall
		Latex paint finish on slab soffit
		Flat latex paint finish on gypsum board ceiling
	Openings (Basement Floor)	Doors and Jambs
	Miscellaneous Works (Basement Floor)	Toilet Partitions with Door panel & accessories

		Urinal Partitions; Phenolic board
	Second Floor	
	Masonry Works/Drywall Partition	Skimcoating
	Finishes	Ceiling Finishes
	Painting Works	Elastomeric paint finish on plastered wall
		Latex semi-gloss paint finish on plastered wall
		Semi-gloss paint finish on gypsum board wall
		Latex paint finish on slab soffit
		Flat latex paint finish on gypsum board ceiling
	Third Floor and Roof Deck	
	Masonry Works/Drywall Partition	New CHB Wall-100mm (4") CHB Walls Including plastering, stiffener column and lintel beams
		Skimcoating
	Finishes	Floor Finishes
		Wall Finishes
		Ceiling Finishes
	Painting Works	Elastomeric paint finish on plastered wall
		Latex semi-gloss paint finish on plastered wall
		Latex paint finish on slab soffit
		Flat latex paint finish on gypsum board ceiling
	Openings	Doors and Jambs
	Miscellaneous Works	50mmø GI Pipe Railing
		9mm Fiber cement board on steel framing (wall cladding)
		Toilet Partitions with Door panel & accessories
		Urinal Partitions; Phenolic board
C.4	**Electrical Works**	

	Basement Floor	
	Lighting and Power System	Wires & Cables THHN stranded
		Wiring Device
		Lighting Fixtures
		Panel Boards
		Enclosed Circuit Breaker
	Third Floor and Roof Deck	
	Lighting and Power System	Conduit Pipes for roughing installation
		Boxes and Flexible Conduit
		Wires & Cables THHN stranded
		Wiring Device
		Lighting Fixtures
		Panel Boards
		Enclosed Circuit Breaker
C.5	**Auxiliary Works**	
	All Floor Levels	
	Installation of Cable, Wires, Devices and Equipment	Structured Cabling
		Closed Circuit Television System
		Fire Detection and Alarm System
		PA-BGM
		Access Control System
		Cable Tray
C.6	**Plumbing and Sanitary Works**	
	Basement Floor	
	Water Line System	Toilet fixtures with accessories

	Third Floor and Roof Deck	
	Water Line System	Potable Lateral Water Lines & Roughing-in of Toilets
		Toilet fixtures with accessories
		Pumps & Tanks
		Testing and Commissioning
C.7	**Mechanical Works**	
	All Floor Levels	Heating, Ventilation (Fan)
		Testing and Commissioning
C.8	**Fire Protection System**	
	All Floor Levels	Water-based Fire Suppression Systems
		Fire Extinguishing Systems
		Testing and Commissioning

NOTE:

a. During hauling of materials, the allowable weight or load for each truck will be 5 to 6 tons that passes through the road network.

B. GENERAL SPECIFICATIONS:

Refer to Annex A.

IV. Selection of Contractor

The procurement and implementation of the project shall be in accordance with the provisions of RA 9184 specifically its Annex “A”. Bidding process shall be conducted by the Bids and Awards Committee (BAC) to be assisted by the TWG. The campus director of PSHS-MRC shall create the Design and Build Committee (DBC) to be composed of highly technical

personnel in the field of architecture and engineering or 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 for infrastructure projects shall comply with the applicable provisions of Section 23-24 of the IRR of RA 9184.

a. Eligibility Documents

I. TECHNICAL COMPONENT ENVELOPE	
Class "A" Documents	
Legal Documents	
☐	(a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) in accordance with Section 8.5.2 of the IRR;
Technical Documents	
☐	(b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
☐	(c) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**
☐	(d) Special PCAB License in case of Joint Ventures **and** registration for the type and cost of the contract to be bid; **and**
☐	(e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission **or** original copy of Notarized Bid Securing Declaration; **and**
	(f) Project Requirements, which shall include the following:
☐	a. Organizational chart for the contract to be bid;
☐	b. List of contractor's key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;

☐	c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**
☐	(g) Original duly signed Omnibus Sworn Statement (OSS) **and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.
Financial Documents	
☐	(h) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).
Class "B" Documents	
☐	(i) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence **or** duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.
(e) **FINANCIAL COMPONENT ENVELOPE**	
☐	(j) Original of duly signed and accomplished Financial Bid Form; **and**
Other documentary requirements under RA No. 9184	
☐	(k) Original of duly signed Bid Prices in the Bill of Quantities; **and**
☐	(l) Duly accomplished Detailed Estimates Form, including a summary shee indicating the unit prices of construction materials, labor rates, and equipment rental used in coming up with the Bid; **and**
☐	(m) Cash Flow by Quarter.

☐ ***Additional Requirements***

Authorized Representative must present;

1. Authorization letter / Special Power of Attorney
2. Letter of Intent
3. Submission of Contractors Letter Certificate to Procuring Entity (SF-INFR-45)
4. Submission of Key Personnel's Certificate of Employment (SF-INFR-46)

Notes:
1. The authorized representative must show proof of employment under the company which he/she represents at least 5 years in the company (e. q. contract of employment etc.
2. Non – compliance of the additional requirements shall not be subjected for the failure or disqualification of the Prospective bidder. These requirements are for the compliance of the statutory and regulatory documents.

V. CONSTRUCTION PERSONNEL

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

A. Project Manager

The Project Manager shall be a licensed architect or engineer with at least Five (5) years relevant experience on similar and comparable projects in different locations. The Project Manager should have a proven record of managerial capability through the directing/managing of major civil engineering works, including projects of a similar magnitude.

B. Project Engineer

The Project Engineer shall be a licensed architect or civil/structural engineer with at least Five (5) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of rapid construction technologies.

C. QA/QC Engineer

The Quality assurance (QA) /Quality Control (QC) Engineer shall be a licensed civil engineer with at least Five (5) years of experience as QA/QC in similar and comparable projects. He/she is responsible for the review of materials' quality if conforming to the specifications, provide request for approval of materials to PSHS, provide inspection request prior to execution of work.

D. 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.

E. Registered Master Plumber/ Sanitary Engineer

The Registered Master Plumber/ Sanitary Engineer must be a duly licensed Registered Master Plumber/ Sanitary Engineer and 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.

F. 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).

Minimum Classification and number of Safety Officer as per Department Order No. 198 Chapter IV Covered Workplaces Section 14 for all covered workplaces shall be as follows:

Number of Workers	Low Risk	Medium Risk	High Risk
1 to 9	One (1) SO1	One (1) SO1	One (1) SO2
10 to 50	One (1) SO1	One (1) SO2	One (1) SO3
51 to 99	One (1) SO2		One (1) SO2 and One (1) SO3
100 to 199		One (1) SO2 and One (1) SO3	
200 to 250	Two (2) SO2 or One (1) SO3	One (1) SO2 and One (1) SO3	Two (2) SO3
251 to 500	Two (2) SO2 and One (1) SO3	Two (2) SO3	One (1) SO2 and Two (2) SO3
501 to 750	Two (2) SO2 and One (1) SO3	Two (2) SO3	One (1) SO2 and Two (2) SO3
751 to 1000	Two (2) SO3		
Every additional 250 or fraction thereof	-	-	Additional One (1) SO3 or SO4
Every additional 500 or fraction thereof	Additional One (1) SO3	Additional One (1) SO3 or SO4	-

Construction is considered as a High-Risk workplace, therefore, the requirement for the number of Safety Officers will depend on the High Risk column.

G. First Aider/ Nurse

The First Aider/ Nurse must be trained and duly certified or qualified to administer first-aid by the Philippine National Red Cross or by any organization accredited by the same.

H. 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.

The above list of key personnel is required and shall be available on-site during construction. The **CONTRACTOR** may, as needed and at its own expense, add additional professionals and/or support personnel for the optimal performance of all Construction Services, as stipulated in these Technical Specifications, for the PROJECT. Prospective bidders shall attach everyone's resume and PRC license of the (professional) staff, proof of qualifications, and related documents, as necessary.

Section VI. SCOPE OF WORKS AND PROJECT IMPLEMENTATION

A. Pre-Construction

1. Secures all necessary building permits prior to construction. All incidental fees shall be included in the cost estimate of the building.
2. Prepares the PERT-CPM of the construction phase.
3. Provides all other necessary documents that shall be required by the Design and Build Committee.

B. Construction Phase

1. Implements all works indicated in the approved construction drawings and documents. All revisions and deviations from the approved plans, especially if it shall impact the overall cost of the project, shall be subject for approval.

2. Provides soil filling, grading and other soil protection measures of the building and other elements of the site, in response to the results of soil and materials testing.

3. Constructs the buildings and other necessary structures, complete with utilities and finishes, resulting in operable and usable structures.

4. Provides protection or relocation of existing trees indigenous to the area, and proper removal and replacement of all introduced trees and vegetation affected by the construction.

5. Layouts piping, conduits, manholes, boxes and other lines for utilities including tapping to existing utility lines. Facilitate the connection of all utilities (power, water, sewer, structured cabling and telephone) with their corresponding utility companies. All application fees shall be included in the project cost.

6. Installs fire protection systems and fixtures, fire extinguishers, emergency lights and lighted fire exit signs.

7. Prepares shop-drawings for approval.

8. Coordinates with the Design and Build Committee regarding scheduling of delivery and installation of all owner-furnished materials and equipment during construction.

9. Conducts all necessary tests (to be required by the Design and Build Committee) and issues reports of results.

10. Rectifies punch-listing works to be inspected and issued by the Design and Build Committee and/or the End-user.

11. Complies with the DOLE-OSH requirements and submit periodic reports concerning occupational safety and health.

12. Provides all other necessary documents that shall be required by the Design and Build Committee.

C. Post Construction Phase

1. Prepares of as-built plans

2. Turn-overs of all manuals, certificates, and warranties of installed items.

3. Secures building certificate of occupancy and fire safety inspection certificate

D. Variation Orders

Any errors, omissions, inconsistencies, inadequacies, or failures 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.

1. 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:

      - an extension of time for any such delays under Section 10 of Annex "E"; or
      - 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

E. Defects and Liability

1. All projects 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, however, to the liabilities imposed upon the engineer/architect who drew up the plans and specification for a building sanctioned under Section 1723 of the New Civil Code of the Philippines.
2. The contractor shall be held liable for structural defects and/or failure of the completed project within the warranty periods specified in Section 62.2.3.217 of the IRR.

Section VII. OVERALL PROJECT TIME SCHEDULE

The CONTRACTOR shall propose the most reasonable time schedule for the completion of the project. It is expected that this period will not exceed Two Hundred Forty (240) calendar days from the date of receipt of the Notice to Proceed (NTP).

Section VIII. RESPONSIBILITIES OF THE IMPLEMENTING AGENCY AND THE CONTRACTOR

A. The Implementing Agencies General Responsibility

The implementing agency for the project is PSHS-MRC. The Design and Build Committee shall:

1. 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 Technical Specifications.

2. Coordinate with CONTRACTOR and the Campus Director of PSHS-MRC with regards to the design and implementation of the project.

3. Assist in the coordination of the CONTRACTOR with various utility agencies during the detailed design and implementation phases of the project.

4. Conduct regular coordination meetings between the CONTRACTOR and PSHS-MRC to facilitate the implementation of the project.

B. The Contractor's General Responsibility

1. The 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 Technical Specifications.

2. The 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.

3. The CONTRACTOR shall provide PSHS-MRC with complete reports such as technical analysis, maps and details regarding the existing conditions and proposed improvements within the site.

4. The CONTRACTOR shall consider the academic calendar and critical dates and occasions within PSHS-MRC, 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.

5. The CONTRACTOR shall inform PSHS-MRC of critical events during construction, especially when such events can potentially disrupt school activities.

6. The CONTRACTOR shall be PCAB accredited and shall have a Construction Safety and Health Program approved by DOLE and designed specifically for the CONSTRUCTION OF SPORTS FACILITIES.

7. The CONTRACTOR will be held accountable for accidents that might occur during the execution of the project. As a precaution, the 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.

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

Section IX. PROJECTED SUBMITTALS DURING THE PROJECT

The following submittals and accomplished documents shall be duly completed and turned over by the CONTRACTOR for the project.

A. <u>For the Pre-Construction Phase (7 copies each)</u>

1. All necessary permits (Fees shall be included in the contract)
2. PERT-CPM / PDM
3. Bar Chart/S-Curve
4. Manpower Schedule/Utilization
5. Equipment Utilization Schedule
6. Construction Methods
7. Derivation of Contract Time
8. Cashflow
9. Occupational Safety and Health Program approved by DOLE

B. <u>For the Construction Phase (7 copies each)</u>

1. As-built plans (hard copy and soft copy)
2. All necessary permits (Fees shall be included in the contract)
3. Shop drawings (hard copy and soft copy)
4. PERT-CPM
5. Test results
6. Guarantees, warranties and other certificates
7. Fire and Life Safety Assessment Report 2 and 3 (FALAR 2 and 3)

C. For the Post-Construction Phase (7 copies each)

1. Certificate of Occupancy (if applicable)
2. Fire Safety Inspection Certificate
3. All other necessary documents to be required by D & B Committee

Section X. CODES AND STANDARDS

The project shall be designed, engineered, installed, tested, commissioned, and handed over in conformity 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.

Section XI. INSTALLATION AND WORKMANSHIP

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

All work to be subcontracted shall be declared by the CONTRACTOR and shall be approved by the Campus Director of PSHS-MRC and its respective technical offices. However, subcontracting of any portion shall not relieve the 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 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 and shall shoulder the cost of such changes.

Section XII. 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 from the Design and Build Committee.

Section XIII. MODE OF PAYMENT

A. The PSHS-MRC shall pay the winning CONTRACTOR progress payments based on billings for actual works accomplished, as certified by the Design and Build Committee of the PSHS System. In no case shall progress billing be made more than once every **Thirty (30) calendar days**. Materials or equipment delivered on the site but not completely put in place or used in the project shall not be included for payment.

B. All progress payment shall be subject to retention of ten percent (10%) based on the amount due to the winning CONTRACTOR prior to any deduction. The total retention money shall be released only upon Final Acceptance of the Project. The winning CONTRACTOR may, however, request for its release prior to Final Acceptance subject to the guidelines set forth in R.A. 9184 and its Implementing Rules and Regulations.

C. The CONTRACTOR may request in writing which must be submitted to form part of the Contract Documents, for an advanced payment equivalent to fifteen percent (15%) of the total Contract Price. The advance payment shall be made once the BUILD CONTRACTOR issues its irrevocable standby letter of credit from a reputable bank acceptable to the PSHS System, or GSIS Surety Bond of equivalent value, within **Fifteen (15) days** from the signing of the Contract Agreement to cover said advanced payment.

D. First Payment/Billing shall have an accomplishment of at least 20% of the construction phase.

E. The following documents must be submitted to the Design and Build Committee before processing of payments to the CONTRACTOR can be made:

1. Progress Billing
2. Detailed Statement of Work Accomplished (SWA)
3. Request for payment by the BUILD CONTRACTOR
4. Pictures/photographs of original site conditions (for Billing)
5. Before, During and After pictures/photographs of work accomplished with a date attached during the actual.
6. Payment of utilities (power and water consumption)
7. CONTRACTOR's affidavit

Note: The CONTRACTOR can bill the PSHS-MRC of up to a maximum of 90% accomplishment.

Prepared by:

DESIGN AND BUILD COMMITTEE:

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Chairperson

JOHN RAY F. PENTINO
Member

CLINT JOHN R. FONDEVILLA
Member

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