

## **TERMS OF REFERENCE**

Consulting Services for the Architectural and Detailed Engineering Design for the Construction of Administration Building of Philippine Science High School-MIMAROPA Region Campus (located in Barangay Rizal, Odiongan, Romblon)

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### **I. BACKGROUND**

The Approved Budget for the Contract of the abovementioned consulting services project is Two Million Pesos only (**PHP 2,000,000.00**)

This is to prepare the plans for the Construction of the Administration Building of Philippine Science High School – MIMAROPA Region Campus. The proposed budget for the construction of this project will be divided into two phases under FY 2022 amounting to Php40,000,000.00 and FY 2024 amounting to Php25,000,000.00 for a total of Sixty-Five Million Pesos only (Php65,000,000.00).

The dimensions and space should be consistent with the PSHS Building Standards and Specifications. The desired infrastructure and facilities will take into consideration the following conceptual design:

#### *A. CONSTRUCTION OF ADMINISTRATION BUILDING*

The proposed facility has a proposed budget of Sixty-Five Million Pesos only (Php65,000,000.00) and shall be located on the slopy area of the entrance of the campus following the natural contours of the land. All rooms to be constructed shall have natural ventilation.

##### **1. Lower Ground Floor**

This shall be the parking space with driveway and landscape on the open area.

- a. **Parking Space** – This area will serve as parking area for all incoming visitors/personnel with vehicles.
- b. **Ramp** – This shall serve as the access for PWD and material deliveries going to upper ground floor.
- c. **Landscape Area (Open area)** – will enhance the aesthetic appeal of the building which includes planning of driveways, shrubs, gardens, flower beds etc.

##### **2. Upper Ground Floor**

It shall house the following offices adhering to the standard size of rooms with maximum capacity:

- a. **Cash Management Unit** – frontline service for financial transactions with suppliers, contractors, scholars, and other stakeholders. This shall accommodate at least two (2) persons with provisions for office table and

chairs, cabinets/shelves, vault and air conditioning unit. The front area is made up of glass windows with inside and outside countertops for ease of transactions with clients.

- b. **Registrar Unit** – frontline service for transactions with parents, scholars, teachers, and other stakeholders. This room shall accommodate at least three (3) persons with provision for office table and chairs, cabinets/shelves and air conditioning unit. The front area is made up of glass windows with inside and outside countertops for ease of transactions with clients.
- c. **Commission on Audit** – This office is dedicated for the resident auditor of the campus which shall have provision for office table and chairs, aircon, cabinet and shelves This room shall accommodate at least three (3) persons.
- d. **Alumni Office** – The office is dedicated for alumni members’ use. It shall have a provision for office table and chairs, cabinet and shelves and air conditioning system. This room shall accommodate at least two (2) persons.
- e. **Public Comfort Room**- This facility is located at one corner of the building. It is a one room separated by a concrete partition. Each partition will have three (3) cubicles. For 1<sup>st</sup> partition it must have two (2) urinals and water closet. For the 2<sup>nd</sup> partition it must have three (3) water closets. Lavatory for each partition is also included.
- f. **GAD Room**- This room shall have provisions to cater family-oriented activities such as playing, reading, etc. This shall have breastfeeding area which shall be a closed partition in the GAD room.
- g. **Accessible Room**- This is a shared room that shall cater the needs of the PWD, Senior Citizens and parents with children that needs diaper changing area. The door must be wider than the standard size as it caters persons with special needs. It must have urinal and water closet with railings along the wall.
- h. **Lobby**- It must have a waiting area for the clients of the frontline services located at the first floor. This shall have the 3D miniature scale model of the campus at the center with indoor falls. The lobby shall also serve as a gallery area for display of campus achievements and milestones. It shall also have stairs going to the second floor.
- i. **Bids and Award Committee Office**- This shall be the main office of the BAC Unit with provision for conference room which shall be enclosed by a frosted glass partition. It shall house at least ten (10) persons with a provision for cabinet, shelves and air-condition unit. Also, audio and video system must be considered for installation.
- j. **Procurement Unit** – It shall cater to at least three (3) persons with provision for office table and chairs, cabinets and shelves. The area is enclosed with wooden or glass partition or divider. The height of which is 1.50m from the finished floor line. This area is beside the BAC Office.

### 3. Second Floor

This shall be the offices of the different units under the Finance and Administration Division. Fronting the second floor is an open area with a Filipino-inspired roofing which allows wind draft to pass through the area.

- a. **Main Hall-** This will house the offices of the FAD Chief, Accounting Management Unit, Budget Management Unit, BAC Office, Procurement Unit, Human Resource Unit, and reproduction room. It shall also have a conference room for small group and large group discussions. Each office shall have enough space for shelves, tables and chairs and cabinets. Provision for air-conditioning system for the whole area shall be considered including enough space to have a conducive working environment to all occupants.
- b. **FAD Chief's Office-** This shall house the office of the Finance and Administrative Division chief with provision for table and chairs, shelves, cabinets and air condition unit. A provision for a cubicle for the Division Chief's secretary is also included and it will be separated by a glass partition. The office is enclosed of floor to ceiling wooden vertical beams that serves as separation from other offices or units.
- c. **Accounting Management Unit** –It shall cater to at least four (4) persons with provision for office table and chairs, cabinets and shelves. The area is enclosed with wooden or glass partition or divider. The height of which is 1.50m from the finished floor line.
- d. **Budget Management Unit** – It shall cater to at least two (2) persons with provision for office table and chairs, cabinets and shelves. The area is enclosed with wooden or glass partition or divider. The height of which is 1.50m from the finished floor line. This area is beside the Accounting Management Unit.
- e. **Human Resource Unit** – It shall cater to at least two (2) persons with provision for office table and chairs, cabinets and shelves. The area is enclosed with wooden or glass partition or divider. The height of which is 1.50m from the finished floor line. This area is beside the Budget Management Unit.
- f. **Conference Rooms-** This shall cater a small group (small room) and large group discussion (large room). One room shall have at least 10 persons while the other rooms can cater to at least 20 persons. This shall be complete with audio and video provisions. It is enclosed with a sound proofed partition. Provision for air-condition units must be considered.
- g. **Staircase** – This is located at the center of the second floor for access to the third floor of employees. This shall also serve as display area for memorabilia, accomplishments etc.
- h. **Hallway** – One side of the hallway shall be made of alternating wood and glass while the other side shall be full-glass. This shall have enough space for the provision of 3 coffee tables with highchairs along the hallway.

- i. Porch** - This shall be an open area with Filipino inspired roofing that will house a pantry area with glass partition and kitchen area which shall be accessible to employees for preparing food meals. Along its corners shall have long counter tops with chairs. At the center of the porch shall have tables and chairs and audio-video provisions for meetings, gatherings, and presentations.

On the edges fronting the area there will be a lawn area for landscape incorporating green technology in its design.

- j. Storage Area** - This shall be part of the porch for the storage of sports equipment used during physical fitness activities.
- k. Common Comfort Room** - This facility is located at one corner of the building. It is a one room separated by a concrete partition. Each partition will have three (3) cubicles. For 1<sup>st</sup> partition it must have two (2) urinals and water closet. For the 2<sup>nd</sup> partition it must have three (3) water closets. Lavatory for each partition is also included.

- l. Supply and Property Unit** – This office shall house at least four (4) persons with provision for office table and chairs, cabinets/shelves and air conditioning unit. This office shall have a door connecting to stockroom for ease of access.

- m. Delivery Bay** – this area is an open space connected to stockroom wherein the delivery service vehicle from suppliers will unload the procured supplies and materials for inspection and acceptance.

- n. Stockroom** – this office space shall house the delivered procured supplies and materials for storage. It shall have a provision for cabinets and shelves. It must be well ventilated. This is also connected to the Office of the Supply and Property Unit for ease of access. A stainless roll up door will be installed at its opening adjacent to the delivery bay area.

#### 4. Third Floor

This shall house the Office of the Campus Director, Management Information System, Records Management Unit, Quality Management System Office, Employees Union Office, and Planning Office.

- a. Office of the Campus Director** – This shall be the office the Campus Director and shall have provision for executive table and chair, cabinets and shelves, air-condition unit, receiving area.

A separate comfort room and rest area will also be provided. The access to this is a sliding door attached to the wall.

- b. Office of the Secretary** – The office of the secretary shall be adjacent to the OCD with passage from the Secretary’s Office to the OCD. This area is separated by a glass partition from the OCD. It shall have a provision of table and chair, cabinets and shelves, and air-condition unit.
- c. Conference Room 1** – A large conference room shall be part of the 3<sup>rd</sup> floor which can cater to at least 25 persons in one seating. Provision for air conditioning units, audio and video system is also included.

- d. **Conference Room 2** – This room is half the size of the regular conference room which shall cater to at least fifteen (15) persons in one seating. Provision for air conditioning units, audio and video system is also included.
- e. **Pantry Area** – Adjacent to the conference room is a pantry area half the size of the conference room which shall serve as the area for food preparation.
- f. **Records Management Unit** – This office shall have provisions for office tables and chairs, shelves/cabinets which can accommodate at most two (2) persons with reproduction area. This area must have a standard ventilation required for the purpose of preserving the records, memorabilia and other important items for storage.
- g. **Management Information System** – This office shall serve as the data cabinet of the Administration Building which can accommodate at least two (2) persons. It must have a provision for office tables and chairs, cabinets, shelves and air-condition unit.
- h. **Quality Management System Office** – It houses the Quality Management System Office of the campus and shall accommodate 3-5 persons with provisions of office tables and chairs, cabinets and shelves.
- i. **Employees Union Office** – It shall cater the employee’s union office and shall have a provision for conference table and chairs with seating capacity of at least six (6) persons, including cabinet and shelves.
- j. **Planning Office** – This will cater the technical personnel of PSHS – MRC for the infrastructure projects implementation of the campus. It shall accommodate at least four (4) persons with provisions of office tables and chairs, cabinets and shelves.

*NOTE: For offices under letter H, I, and J this will have a centralized or shared airconditioned units and each offices will be separated by glass or wooden partition or divider with a height of 1.50m from the finished floor line. The whole area will be enclosed with a partition that will separate from other offices in the 3<sup>rd</sup> level. This partition must be partially transparent in order to have a clear view from other offices or area.*

- k. **Hallway** – One side of the hallway shall be made of alternating wood and glass while the other side shall be full-glass. This shall have enough space for the provision of three (3) coffee tables with highchairs along the hallway.
- l. **Porch** – This shall be an open area with Filipino-inspired shaped roofing. Along its corners shall have long countertops with chairs. At the center of the porch shall have tables and chairs and audio-video provisions for meetings, gatherings, and presentations.

On the edges fronting the area there will be a lawn area for landscape incorporating green technology in its design.

- m. Storage Area** - This shall be part of the porch for the storage of sports equipment used during physical fitness activities.
- n. Common Comfort Room** - This facility is located at one corner of the building. It is a one room separated by a concrete partition. Each partition will have three (3) cubicles. For 1<sup>st</sup> partition it must have two (2) urinals and water closet. For the 2<sup>nd</sup> partition it must have three (3) water closets. Lavatory for each partition is also included.

## 5. Roof Deck

This open area shall be the mechanical deck to cater the ACCU and other mechanical equipment and should have provisions for the location of solar panels.

With this, the PSHS-MRC intends to engage the technical and professional expertise of a local consultant firm/company to undertake the following general A & E work:

- A. Prepare and Submit Design Standards in accordance with appropriate standards and accepted detailed engineering practice of PSHS and the Department of Public Works and Highways (DPWH), (*see annex A for PSHS Building Standards and Specifications.*) Design standards for structures shall take into account, among other things, the seismicity and wind hazards of the area to determine the optimum safety of structures in the event of an earthquake or a strong typhoon.

In the event of an earthquake, the structures should withstand Magnitude 9, whereas in the event of a typhoon, the structure should withstand basic wind speeds for Zone 2 areas in accordance to NSCP 2015 or above.

Further, design standards must incorporate green technology or use of materials that is environment friendly.

- B. Prepare and Submit Field Surveys and Investigation Reports which include, but not necessarily limited to the following activities: hydrographic, topographic, hydrologic, sub-surface, and other related field surveys. These field investigations shall be carried out in accordance with the design guidelines, criteria and standards adopted by the PSHS MRC and the DPWH. All survey and investigation works shall be prepared in a manner satisfactory to carry out accurate design and production of plans that will permit quantity estimates to be made within plus or minus ten percent (10%) of the final quantities of the completed structures.
- C. Prepare and submit a Master Plan covering the entire development area and showing the location of each structure listed in Annex A.
- D. Prepare a scaled model of the development/project concerned.

The objective of hiring an A & E Design Consultant is to tap its expertise in developing the architectural and detailed engineering design for the proposed development project, which will be used as basis for preparing the Scope of Work, and the Technical Specifications of the construction project.

PSHS envisions its structures as safe, conducive for work, state-of-the art yet economical, energy saving and environment friendly.

## **II. BASIC INFORMATION ON PROPOSED PROJECT**

- A. *Location* : Brgy. Rizal, Odiongan, Romblon  
B. *Type of Project* : Consulting Services for the Construction of Administration Building with a proposed budget cost of Php65,000,000.00  
C. *Approximate Floor Area*: 2,500 Sq. M.

## **III. DURATION OF CONTRACT (120 calendar days, excluding project supervision)**

### *A. Component I – Pre-Design*

1. Project Plan and Schedule of Detailed Architectural and Engineering activities within Thirty (30) calendar days from receipt of Notice to Proceed.

### *B. Component II – Architectural and Detailed Engineering Design*

1. Schematic Design Phase, Design Development Phase, Contracts Documents Phase within Ninety (90) calendar days from the completion of the approved Field Study and Investigation Reports

### *C. Component III – Bidding & Construction Supervision*

1. Bidding Supervision Phase – which include assistance and advice in securing bids, tabulation and analysis of bid results, and making recommendations on the award of construction contracts, and in preparing formal contract documents; preparation of supplementary drawings required to suit actual field conditions; checking detailed construction and as-built drawings, shop and erection drawings submitted by contractors. periodic visits to check on the general progress of work and quality of material and workmanship; observing performance tests and start-up and making report thereon; and making a final inspection and reporting of completed project.
2. Project Supervision Phase - Periodic visits to check on the general progress of work and quality of material and workmanship; observing performance tests and start-up and making report thereon; and making a final inspection and reporting of completed project, but not more than Five Hundred Forty (540) calendar days from the receipt of the Notice to Proceed (NTP) to determine whether or not the work is in compliance with the approved designs, specifications and quality of the work based on the construction schedule and recommend appropriate action for any findings to the Procuring Entity.

## **IV. CONSULTANCY SERVICE REQUIREMENTS**

- A. A local consultancy firm/company with experience in Architecture and Detailed Engineering Design with the following profile:

1. A corporate or partnership entity duly registered with the Philippines' Securities and Exchange Commission, and where the majority shareholder is a Filipino
2. Must be operational for at least five (5) years;
3. Must have at least five (5) years of consulting experience in A & E design.
4. Must have previously handled/ managed similar contracts for the Detailed Architectural and Engineering Design Services (DAEDS) of academic facilities including, but not limited to:
  - a. Schools
  - b. Office Buildings/ Office
  - c. Mixed Use Buildings

**B. Manpower and Qualification Requirements**

1. The CONSULTANT, as a minimum requirement of the project, must be able to provide different personnel for each position the following manpower:

a. A & E Design

POSITION	NUMBER OF PERSONNEL	QUALIFICATIONS
Principal Architect/ Project Manager	2	<ul style="list-style-type: none"> <li>○ Graduate of B.S. in Architecture with valid PRC license,</li> <li>○ With minimum five (5) years of experience on design and/or building construction management.</li> <li>○ With educational training in the fields of construction management and other related works.</li> <li>○ Preferably with Doctorate or Master's degree or other degree related to the profession.</li> </ul>
Structural Engineer	1	<ul style="list-style-type: none"> <li>○ Graduate of B.S. in Civil Engineering with valid PRC license</li> <li>○ With minimum of five (5) years of experience on his/her profession.</li> <li>○ Duly Accredited Structural Engineer.</li> <li>○ With educational training on civil or structural engineering design registered at/under Philippine Institute of Civil Engineers (PICE) or Association of Structural Engineers of the Philippines (ASEP).</li> <li>● Preferably with Doctorate or Master's degree or other degree related to the profession.</li> </ul>
Civil Engineer	1	<ul style="list-style-type: none"> <li>● Graduate of B.S. in Civil</li> </ul>



		<p>Engineering with valid PRC license</p> <ul style="list-style-type: none"> <li>● With minimum of five (5) years of experience on his/her profession.</li> <li>● With educational training on civil or structural engineering design registered at/under Philippine Institute of Civil Engineers (PICE).</li> <li>● Preferably with Doctorate or Master's degree or other degree related to the profession.</li> </ul>
Professional Electrical Engineer	1	<ul style="list-style-type: none"> <li>○ Graduate of B.S. in Electrical Engineering with valid PRC license.</li> <li>○ With minimum of five (5) years of experience on his/her profession.</li> <li>○ With educational training on electrical design</li> <li>○ Preferably with Doctorate or Master's degree or other degree related to the profession.</li> </ul>
Professional Mechanical Engineer	1	<ul style="list-style-type: none"> <li>○ Must be a Professional Mechanical Engineer with valid PRC license.</li> <li>○ With minimum five (5) years of experience on his/her profession.</li> <li>○ With educational training on mechanical design.</li> <li>○ Preferably with Doctorate or Master's degree or other degree related to the profession.</li> </ul>
Professional Electronics and Communications Engineer or Electronics Engineer	1	<ul style="list-style-type: none"> <li>● Graduate of B.S. in Electronics Engineering or B.S. in Electronics and Communication Engineering with valid PRC license</li> <li>● With minimum of five (5) years of experience on his/her profession.</li> <li>● With educational training on electronics or electronics and communications design.</li> <li>○ Preferably with Doctorate or Master's degree or other degree related to the profession.</li> </ul>
Sanitary Engineer	1	<ul style="list-style-type: none"> <li>○ Graduate of B.S. in Sanitary Engineering or B.S. in Environmental and Sanitary Engineering with valid PRC license</li> <li>○ With minimum of five (5) years of experience on his/her profession.</li> <li>○ With educational training on sanitary engineering or environmental and sanitary engineering such as waterworks, sewage, and drainage systems.</li> <li>○ Preferably with Doctorate or Master's degree or other degree</li> </ul>

		related to the profession.
<b>TOTAL</b>	8	

b. Construction Supervision Management Services

The Consultant shall provide different personnel for the construction supervision management of the project.

POSITION	NUMBER OF PERSONNEL	QUALIFICATIONS
On-Site Architect (Site visit shall be as needed)	1	<ul style="list-style-type: none"> <li>○ Licensed Architect</li> <li>○ At least five (5) years' experience in the supervision of projects of similar or greater magnitude and complexity.</li> </ul>
Civil/Structural Engineer (Full Time)	1	<ul style="list-style-type: none"> <li>○ Licensed Civil/Structural Engineer.</li> <li>○ At least five (5) years' experience in the supervision of projects of similar or greater magnitude and complexity.</li> </ul>
<b>TOTAL</b>	2	

2. The CONSULTANT may provide additional personnel for the proper and timely completion of the project, but at no additional cost to PSHS-MRC.
3. The CONSULTANT must provide the Professional Regulation Commission (PRC) License and Professional Tax Receipt (PTR) of assigned staff for this project, as well as any relevant proof of skills, qualifications, work experience and professional certifications that shall establish the qualifications of the staff for the job.
4. 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)

C. Scope of Work and Services

The Consultant shall undertake the Architectural and Engineering Design Services for the Construction of Administration Building for the Philippine Science High School MIMAROPA Region Campus (PSHS-MRC) in accordance with accepted industry standards, codes and procedures. The Consultant shall also render services during bidding and building construction.

The scope of services to be rendered by said Consultant shall include but not limited to the following:

1. *Pre-Design Phase*

- a. Consults with the Head of the Procuring Entity (HOPE) to ascertain the

project

objectives and requirements, its general size and scope of the project and its location on the site. The consulting services under this category include the following:

- i. Ocular inspection of the site and its immediate vicinity for proper disposition of the structure and its utilities.
- ii. Reconnaissance, topographical and the other engineering and land surveys, soil and foundation investigation.
- iii. Preparation of preliminary architectural and engineering designs, layout, outline specific recommendations prior to actual design of the (a) Construction of Administration Building

The CONSULTANT shall submit to the Head of Procuring Entity (HOPE), within Thirty (30) calendar days from receipt of the Notice to Proceed (NTP), the work plan and schedule.

## 2. *Schematic Design Phase*

a. Prepares the following:

- i. Preliminary architectural and engineering designs, lay-outs, and other needed working drawings taking into consideration the elderly, differently abled and gender concerns, subject to the approval of the HOPE;
- ii. Program of Work;
- iii. Specific recommendations prior to actual design.

b. Submits the following:

i. Preliminary Designs

- i.1. At least three (3) perspective designs which shall complement with the existing PSHS-MRC Buildings and with ***PSHS Building Standards and Specifications***.

ii. Preliminary Engineering Studies;

iii. Technical and Material Specifications;

iv. Preliminary Cost Estimate;

**Design cost range for the Construction of Administration Building estimated from Php22,000.00 to Php24,000.00 per square meter.**

- v. Soil Investigation and Survey Works Report; and
- vi. Recommendations.

The above items shall be submitted in three (3) original copies on A4 sized bond paper.

- vii. Preliminary Architectural and Engineering Design (at any convenient scale):
  - vii.1. Site Development Plan;
  - vii.2. Floor Plans;
  - vii.3. Sections;
  - vii.4. Equipment Plan and Lay Out; and
  - vii.5. Exterior perspective (not to scale).

The above items shall be submitted in three (3) original copies printed on regular-sized tracing/drawing paper (20 in. x 30 in.), three (3) in blueprints and three (3) original copies on size “A3” paper (389 mm x 273 mm).

- viii. Preliminary Design Report.

The foregoing Preliminary Architectural and Engineering Design shall be subject to the approval of the HOPE.

### 3. *Design Development Phase (Basic Design)*

- a. Prepares and submits the following:

- i. Detailed Architectural and Engineering Design of the project based on the approved schematic design, subject to the approval of the HOPE (at any convenient scale);
  - i.1. Site Development Plan;
  - i.2. Floor Plans;
  - i.3. Elevations;
  - i.4. Sections;
  - i.5. Furniture, Fixtures, Furnishings and Equipment Plan and Lay Out;
  - i.6. Exterior perspective (not to scale).

The above items shall be submitted in three (3) original copies

printed on regular-sized tracing/drawing paper (20 in. x 30 in.), three (3) in blueprints and three (3) original copies on size “A3” paper (389 mm x 273 mm).

- b. Technical and Material Specifications;
- c. Updated Statement of Probable Project Construction Cost; and
- d. Summary Report based on Reconnaissance, Topographical & Land Survey, Soil Test, Engineering and Environmental Pre-requisites;

Items (a), (c) and c) shall be submitted in three (3) original copies on A4-sized bond paper.

The foregoing Detailed Architectural and Engineering Design shall be subject to the approval of the HOPE

#### 4. *Contract Documents Phase (Final Design)*

a. Prepares and submits the following:

i. Complete Construction Drawings based on the approved detailed architectural and engineering design setting forth in detail the work required for the architectural, structural, electrical, sanitary, mechanical, service-connected equipment and site work:

##### i.1. *Architectural Plans*

- Location Plan (drawn within a 2-km radius);
- Site Development Plan, including Landscaping Plan (at scale 1:200M standard or any convenient scale for large scale development);
- Exterior Perspective (at eye-level if single structure and at bird’s eye view if more than one structure);
- Floor Plans of different levels (at scale of not less than 1:100M);
- Elevations (at least four sides and at scale of not less than 1:100M);
- Furniture, Fixtures, Furnishings and Equipment Plan and Lay-out (at any convenient scale but not less than 1:100M and details at any convenient scale); and
- Detail Drawings (at any convenient scale).

##### i.2. *Structural Plans*

- Foundation Plan (at scale of not less than 1:100M);
- Floor Framing Plan (at scale of not less than 1:100M);
- Roof Framing Plan (at scale of not less than 1:100M);
- Spot Details (at any convenient scale);
- Details of Footing (at any convenient scale);
- Details of Column (at any convenient scale);
- Details of Beams and Girders (at any convenient scale);
- Details of Slab on Fill and Suspended Slabs (at any convenient

- scale); and
- Details of Structural Members such as stairs, canopy, gutter, parapet, etc. (at any convenient scale).

#### *i.3. Plumbing and Sanitary Plans*

- Plumbing and Sanitary Plan and Layout which include Sewer, Drainage and Downspout and Water Distribution Lines (plan at scale of not less than 1:100M, and details at any convenient scale);
- Isometric Drawings of rough-ins (at any convenient scale); and
- Detail Drawings (at any convenient scale).

#### *i.4. Mechanical Plans*

- General Mechanical Layout Plans indicating the equipment/name of machinery with corresponding brake horsepower (at scale of not less than 1:100M);
- Longitudinal and Transverse Sections showing inter-floor relations and defining manner of support (at scale of not less than 1:100M);
- Isometric Drawing of Piping System (at scale of not less than 1:100M);
- Fire Protection Plan/Layout (at scale of not less than 1:100M);
- Duct Work Plan/Layout (at scale of not less than 1:100M);
- Detail of Machinery Foundation and Support;
- Complete Machinery List; and
- Detail Elevators (when applicable).

#### *i.5 Electrical Plans*

- General Electrical Layout with Legends (at scale of not less than 1:100M);
- Lighting and Power Layout with Riser Diagram, Line Diagram, Electrical Load Schedule and the Design Analysis (at scale of not less than 1:100M); and
- Cable Lay-out (at scale of not less than 1:100M)

#### *i.6 Electronics and Communications Plans*

- General Structured Cabling Layout with Legends (at scale of not less than 1:100M);
- Structured Cabling with Riser Diagram, Line Diagram, and Schedule (at scale of not less than 1:100M);
- Voice and Data Network, Audio-Video System, CCTV and other Wire and
- Cable Lay-out (at scale of not less than 1:100M).

The above items shall be submitted in three (3) original copies printed on regular-sized tracing/drawing paper (20 in. x 30 in.),

three (3) in blue prints and three (3) original copies on size “A3” paper (389mm x 273mm) and one (1) soft copy in licensed ACAD format.

*i.7. Other Pertinent Documents*

- Structural Design Analysis
- Boring and Plate Load tests
- Seismic Analysis
- Geodetic Survey for the footprints of the existing and proposed buildings
- Environmental Compliance Certificate (ECC) or Certificate of Non-Coverage (CNC), whichever is applicable
- Technical specifications describing the type and quality of materials, finishes, manner of assembly or construction and the General Conditions under which the project is to be constructed
- Priced Bill of Quantities
- Unit Cost Analysis
- Proposed Construction Schedule and Estimated Cash Flow that may be implemented in phases in accordance with the available budget for the project.
- General Conditions.

The above items shall be submitted in three (3) original copies on A4-sized bond paper and one (1) soft copy in MS Office Format. The foregoing Construction Drawings shall be subject to the approval of the HOPE.

*5. Bidding Phase*

- a. Furnish the HOPE with not less than five (5) complete sets (in USB/CD and in 20 in. x 30 in. hard copy) of Construction Drawings, Specifications, Bill of Quantities and General Conditions of the Design.
- b. Furnish the HOPE, for approval, with not less than five (5) complete sets (in USB/CD and in 20 in. x 30 in. hard copy) of Supplemental Drawings as required by the Bids and Awards Committee in order to clarify bidders' inquiry prior to bid opening.
- c. Assists and advises the HOPE in securing bids and in preparing formal contract documents during bidding for the Works Contractor/s for the project.

Hard copies shall be in A4-sized bond paper. Soft copies shall be in MS Office format saved in USB/CD's.

*6. Construction Phase*

- a. Checks and approves the following:
  - i. Samples of materials and shop drawings and other requirements in

accordance with the descriptive information and provisions of the Contract Documents; and

- ii. As-built drawings, shop and erection drawings submitted by Works Contractor
- b. Prepares and submits supplementary drawings to suit actual field conditions in size “A3” paper (389 mm x 273 mm);
- c. Conducts regular periodic visits of at least **two (2) times a week** for checking detailed construction, the progress of works and quality of materials and workmanship; to determine whether or not the work is in compliance with the approved designs, specifications and quality of the work based on the construction schedule and recommend appropriate action for any findings to the Procuring Entity;
- d. Evaluate work accomplishment and recommend validity/propriety of progress billing submitted by the Project Contractor in coordination with the Construction Manager;
- e. Submits written reports of any deviation from the specific quality/standard and descriptive information of the construction materials and workmanship as stated in the Contract and its Annexes in coordination with the Construction Manager;
- f. Furnish the PSHS-MRC with monthly progress report and any such information relative to the project in coordination with the Construction Manager;
- g. Observes performance tests and start-up and makes report thereon in coordination with the Construction Manager; and
- h. Conducts punch-listing and final inspection, and prepares the report on the completed project in coordination with the Construction Manager.

All submissions, except Item (b), shall be in A4-sized bond paper.

- i. The CONSULTANT shall assist the Procuring Entity to perform the following Post Construction Services but not limited to:
  - i. Prepare a checklist/punch-list of the defects/deficiencies and monitor the rectification works thereof in coordination with the Construction Manager;
  - ii. Review accuracy and completeness of As-Built Plans/Drawings;
  - iii. Collate all warranty agreements provided by the Contractor/Suppliers;
  - iv. Prepare and issue the Certificate of Completion of Works based on the turnover reports submitted by the Project Contractor in coordination with the Construction Manager;
  - v. Prepare Final Completion Report.



j. Others

i. Attends regular coordination meetings with the HoPE, the Contractor, the Project Management Team and such other parties as may be required, or their designated representatives;

7. *Project Documentation*

The CONSULTANT shall submit, among others that may be required, the following documents at each phase of the project:

a. Stage I – A&E Design

i. A&E Design work plan

ii. Schematic Interior and Exterior Design

iii. Design Development with detailed floor plan and Façade

iv. Architectural and Engineering Contract Documents for Building Permit and Construction Purposes

v. Other documents required under Section 6.C.

b. Inception Report (documentations prior to the bidding for the (a); and (b) Construction of Administration Building II to be submitted within two (2) weeks upon the receipt of the Notice to Proceed (NTP), which shall include the final Manning Schedule for approval.

c. Stage II – Construction Supervision and Management Services (Project Monitoring)

i. Report/Documentation signed by members of the CSMS TEAM resulting from the evaluation of the (a) Construction of Administration Building.

d. Stage III – Post Construction Services

i. Confidential Performance Rating of the CONTRACTOR, and suppliers for owner-supplied equipment and materials.

ii. Final Project Report signed by the members of the CSMS TEAM

**V. RESPONSIBILITIES OF PROCURING ENTITY**

The Design and Build Committee (DBC) and other key personnel in charge of the project shall:

A. Receive/review/evaluate/recommend approval of the detailed architectural drawings and sketches within seven (7) calendar days from receipt thereof;

B. Receive/review/evaluate/recommend approval of documents pertaining to the engineering and technical studies conducted within seven (7) calendar days from

receipt thereof;

- C. Receive/review/evaluate/recommend approval of documents pertaining to the site analysis and investigation activities conducted within seven (7) calendar days from receipt thereof;
- D. Receive the detailed engineering activities/work plan and schedule for the Construction of Administration Building.
- E. Give prompt notice to the CONSULTANT, if there is any defect, modification or changes in the project scope;
- F. Notify the CONSULTANT of its designated contracts;
- G. Provide the CONSULTANT access to PSHS facilities subject to approval by the Head of Procuring Entity (HOPE) to enable the CONTRACTOR to perform their assigned tasks.
- H. Provide the consultant with specific information and description about the location, particularly its boundaries and limits.

The HOPE shall:

- I. Act within seven (7) days on the proposed Conceptual Project Design as recommended by the BAC, DBC and TWG, for review and evaluation;
- J. Act within seven (7) days on the proposed detailed work plan, architectural drawings, and engineering plan with the corresponding costs and related documents subject for review and evaluation;

## **VI. CONFIDENTIALITY OF DATA**

- A. The ownership and all rights thereto of all designs, drawings, specifications, and copies thereof including electronic files, prepared, and furnished by the CONSULTANT in the performance of the services subject of the Agreement shall be vested with PSHS-MRC.

## **VII. SERVICE LEVEL AGREEMENT**

- A. PSHS-MRC shall maintain a Service Level Agreement (SLA) with the CONSULTANT, with provisions for liquidated damages in case of their non-compliance. The Liquidated Damages is equal to one-tenth of one percent (0.1%) of the cost of the unperformed portion for everyday of delay. Once the cumulative amount of Liquidated damages reaches ten percent (10%) of the amount of the contract, the procuring entity shall rescind the contract, with prejudice to other courses of action of remedies open to it.

## **VIII. WARRANTIES OF THE CONSULTANT**

- A. The CONSULTANT warrants that it shall conform strictly to the terms and conditions of these Terms of Reference.
- B. The CONSULTANT warrants, represents and undertakes reliability of the service and that their manpower complements are hardworking, qualified/reliable and dedicated to do the service required to the satisfaction of PSHS-MRC. It shall employ highly skilled, well-behaved and honest employees with ID displayed conspicuously while working within the compound. The CONSULTANT shall not employ PSHS-MRC employees or their relatives to work in any category of the project whatsoever.
- C. The CONSULTANT shall comply with the laws governing employee's compensation, PhilHealth, Social Security and/or labor standards and other laws, rules, and regulations applicable to its personnel employed on account of contracted services. The CONSULTANT shall pay its personnel not less than the minimum wage and other benefits mandated by law.
- D. The CONSULTANT, in the performance of its services, shall secure and maintain at its own expense all registration, licenses or permits required by National or Local Laws and shall comply with the rules, regulations and directives of the Regulatory Authorities and Commissions.
- E. The CONSULTANT's personnel shall take all necessary precautions for the safety of all persons and properties at or near their area of work and shall comply with all the standard and established safety regulations, rules and practices.
- F. The CONSULTANT shall coordinate with any authorized and/ or designated PSHS – MRC personnel in the performance of their jobs.
- G. The CONSULTANT shall be liable for loss, damage, or injury that may be due directly through the fault or negligence of its personnel. It shall assume responsibility thereof and the PSHS-MRC shall be specifically released from any responsibility arising there from.
- H. The CONSULTANT shall neither assign, transfer, pledge nor subcontract any part or interest therein.
- I. The CONSULTANT shall render service at no cost to PSHS – MRC in case of any extension of the contract duration.

**IX. TERMS OF PAYMENT**

- A. The CONSULTANT shall be paid based on the percentage of work completed with a reasonable time from the submission of all the required documents, subject to the required Expanded Withholding Tax (EWT) and Final Withholding VAT.
- B. Payments shall be made upon completion and acceptance of work in each component:

<b>Component I</b>	<b>20%</b>
Field Study and Investigation, Thirty (30) calendar days	
<b>Component II</b>	<b>60%</b>
Architectural and Detailed Engineering Design, Ninety (90) calendar days	

Post Warranty Security (refer to RA 9184 and IRR)

**Component III**

**20%**

Project Supervision Phase,  
Periodic supervision for the duration of the project  
construction phase but not more than Six Hundred Sixty (660)  
calendar days from the receipt of the Notice to Proceed (NTP).

**X. PRE-TERMINATION OF CONTRACT**


- A. The contract for the Consultancy Services for the Architectural and Detailed Engineering (A&E) may be pre-terminated by the PSHS-MRC for any violation of the terms of the contract. In case of pre-termination, the CONSULTANT shall be informed by the PSHS-MRC thirty (30) days prior to such termination.
- B. In case of pre-termination, the CONSULTANT shall be liable to an additional liquidated damages equivalent to one percent (1%) of the contract price as provided by the Government Accounting and Auditing Manual (GAAM) and forfeiture of the performance security.
- C. The PSHS - MRC shall have the right to blacklist the CONSULTANT in case of pre-termination.

Prepared by:

DESIGN AND BUILD COMMITTEE:


  
**WOODRITZ RABINO**  
DBC Chair

  
**CLINT JOHN R. FONDEVILLA**  
Member

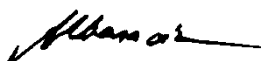
  
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**Engr. JOSEPH G. BANTANG**  
Member

Concurred:

  
**EDWARD C. ALBARACIN**  
Campus Director