



TERMS OF REFERENCE (TOR)

Increase in Carrying Capacity of Nursing and Allied Health Programs

I. PROJECT DESCRIPTION

1. **Project Title:**

Increase in Carrying Capacity of Nursing and Allied Programs at EVSU Main Campus.

2. **General Description:**

The project shall cover the design and construction of the “Increase in Carrying Capacity of Nursing and Allied Programs” at EVSU Main Campus. The general objective is to provide additional classrooms addressing SDG 4 and SDG 9 by creating a conducive learning environment for students. This will also cater for administrators and faculty members by providing adequate space for lectures and laboratories including offices for its clientele. Specifically, the project seeks to provide a structurally safe and secure environment and to upgrade the university’s carrying capacity through its facilities.

The project is approximately 614.64 sq. m. based on its building footprint with sufficient parking area that includes PWD services. The Approved Budget for the Contract (ABC) shall be in the amount of Php 23,346,000.00. The budget for the building’s completion will be proposed after the completion and approval of the design.

3. **Project Components:**

The building components are as follows;

3.1 **Ground Floor**

Medical Space (Infirmary Room, Consultation, Physician’s Room, Nurses Station)

Dental Space (Operatory Area, Dentist Office, Dentist Aide)

Comfort Rooms

Waiting Rooms

Lobby

3.2 **Second Floor**

Laboratory (Demonstration Area, Storage Area, Cooking Area)

Comfort Rooms

Lounge

Lobby

3.3 **Third Floor**

Alfresco Restaurant



Kitchen
Lounge
Office
Comfort Rooms

- 3.4 **Roof Deck**
Machine Room (Elevator)
Aircon AHUs

The site shall be developed to accommodate the standard requirements of a modern state university that complies with the standards prescribed by the National Building Code of the Philippines, the relevant Accessibility Law, the inclusivity of the Gender and Development (GAD) Program, Post-COVID-19 design standards, and other referral codes for design standard of buildings.

The EVSU awards all parts of the project to a single contract to a single firm, partnership, corporation, joint venture (JV), or consortium. The Conceptual Design should become the basis by the Contractor/Consultant of the Detailed Design.

II. PROCUREMENT MODE AND OBJECTIVES

The Design and Build Scheme of procurement is recommended, pursuant to the guidelines for the Procurement and Implementation of Contracts for Design and Build Infrastructure Projects of RIRR of RA 9184. The procurement aims to:

- 1.) To prepare complete Architecture and Engineering Plans and related studies/investigations that consider the following:
 - a) Optimal benefits for all stakeholders, which includes the procuring entity, direct users and the general public.
 - b) Construction of a building that conforms to all relevant laws, and design standards and legal procedures.
- 2.) To build a Three (3) Storey Building consistent with the following principles:
 - a) Minimize adverse impacts on the natural environment ensuring that all DRR-CCA design principles are adhered to.
 - b) Produce a Comprehensive Architectural and Engineering Plans which include concepts in:
 - i. Energy savings through day lighting and monitoring of power consumption;
 - ii. Natural Ventilation and thermal comfort concepts;
 - iii. Addressing occupational hazards and environmental health concepts;
 - c) Site Development and Building Design that will be resilient, flexible and can accommodate technological change.



- 3.) To implement a turnover procedure in accordance with standard Project Acceptance and Turnover.

III. GENERAL SCOPE OF WORK

The contract shall consist of two (2) stages:

STAGE I:

ARCHITECTURAL AND ENGINEERING (A&E) DESIGN OF “INCREASE IN CARRYING CAPACITY OF NURSING AND ALLIED HEALTH PROGRAMS”

- A. **Pre-Design Phase** where the specific parameter, size and scope of the works to the building shall be established. Preliminary schematic maps/ drawings shall be presented by the Winning Bidder for approval by the procuring entity before Final Detailed Architectural and Engineering Design (DAED) Plans are completed. It includes, but not limited to:
 - a) Conduct of reconnaissance, engineering surveys on utilities locations, on-site investigations of connection/tapping points; and
 - b) Preparation of preliminary architectural and engineering designs, layouts, outline specifications, preliminary cost estimates, value engineering/value analysis study and specific recommendations prior to final design. *(See ANNEXes for Design References).*
- B. **Basic Design Phase** includes preparation of final detailed plans and designs, working drawings, specifications, detailed cost estimates for the construction of the “Increase in Carrying Capacity of Nursing and Allied Health Programs”. Complete Detailed Architectural and Engineering Design (DAED) Plans, Technical Specifications and Design Calculations for the construction of the building. Such plans, designs and specifications shall be subject to review and approval by EVSU. The Design Development (DD) and the Contract Documents (CD) phases of the design shall continue after the bid is awarded. It shall likewise be subject to review and approval by the EVSU.

Aside from the A&E professional design fees, other incidental expenses that are also to the account of the winning bidder shall include the geodetic survey of the project lot and other design and construction requirements.
- C. **Contract Documentation Phase** will cover preparation of necessary documents for audit purposes until the project’s completion and acceptance.

STAGE II:

CONSTRUCTION OF THE “INCREASE IN CARRYING CAPACITY OF NURSING AND ALLIED HEALTH PROGRAMS” THREE (3) STOREY BUILDING WHICH CAN BE COVERED BY THE BUDGET

Stage II shall be the Construction of Increase in Carrying Capacity of Nursing and Allied Health Programs Three (3) Storey Building which can be covered by the



budget:

- A. Winning bidder shall prepare supplementary drawings required to suit actual field conditions.
- B. The winning bidder shall demolish/haul the existing obstructions in the assigned lot area based on the site development map and complete the construction of the structural component of the building from the foundation up to the roof deck. From the ground floor up to the Roof Deck floor; all the building's systems (electrical, mechanical/fire protection, plumbing/sanitary, and information and communication) shall be rendered fully functional; and with complete architectural finishes. From 1st floor to the roof deck, a complete roughing-in works and exterior walls are painted plain cement finish. Waterproofing shall be provided at the roof deck.
- C. Winning Bidder shall adhere to the strict compliance of all applicable permits/licensing and documentary requirements.
- D. All other related tasks until completion and acceptance of the project.

IV. METHODOLOGY

This Project is a “Design and Build” Scheme (DBS) contract and is a fixed lump sum cost and changes or variation orders will only be allowed if the changes in the design and construction requirements were not anticipated in the preparation of contract documents prior to contract signing and approval. The following guidelines shall govern the approval for changes or variation orders for work items under the DBS (Ref. Annex” G” of the revised 2016 IRR of R.A. 9184).

This Design and Build Contract includes submission of site investigation reports, preparation of project execution plan, preparation of detailed construction drawings/plans and submission of As-Built Plans.

- A. **Contract Implementation for the Design and Build Scheme** As a rule, contract implementation guidelines for the procurement of infrastructure projects shall comply with Annex “E” of the IRR of RA 9184, as amended. The following provisions shall supplement the procedures specified in Annex “E”.
 - 1.) No works shall commence unless the contractor has submitted the required documentary requirements and the procuring entity has given written approval. Work execution shall be in accordance with reviewed and approved documents.
 - 2.) The contractor shall be responsible for obtaining all necessary information as to risks, contingencies which may affect the works and shall prepare and submit all necessary documents specified by the procuring entity to meet all regulatory approvals as specified in the contract documents.



- 3.) The contractor shall submit a detailed program of work within seven (7) calendar days after issuance of the Notice to Proceed (NTP) for approval by the procuring entity that shall include, among others:
 - a.) The order in which it intends to carry out the work including anticipated timing for each stage of design/ detailed engineering and construction,
 - b.) Periods for review of specific outputs and any other submissions and approvals,
 - c.) Sequence of timing for inspections and tests as specified in the contract documents,
 - d.) General description of the design and construction methods to be adopted,
 - e.) Number and names of personnel to be assigned for each stage of the work,
 - f.) List of equipment required on site for each major stage of the work, and,
 - g.) Description of the quality control system to be utilized for the project.
- 4.) Any errors, omissions, inconsistencies, inadequacies, or 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 documents which have 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.
- 5.) As a rule, changes in design and construction requirements shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change or variation orders:
 - a.) Change Orders resulting from design errors, omissions or non-conformance with the parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to the procuring entity.
 - b.) Provided that contractor suffers delay and/or incur 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, the cumulative amount of the variation order does not exceed ten percent (10%) of the original contract price.



- 6.) The contract documents shall include the manner and schedule of payment specifying the estimated contract amount and installments in which the contract price will be paid.
- 7.) The contractor shall be entitled to advance payment subject to the provisions of Section 4 of Annex “E”.
- 8.) The procuring entity shall define the quality control procedures for the design and construction in accordance with agency guidelines and shall issue the proper certificates of acceptance for sections of the works or the whole of the works as provided for in the contract documents.
- 9.) The contractor shall provide all necessary equipment, personnel, instruments, documents, and others to carry out specified tests.
- 10.) All design and builds 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.
- 11.) The contractor shall be held liable for design and structural defects and/or failure of the completed project within the warranty periods specified in Section 62.2.3.2 of the IRR.
 - a) Implement the project taking into consideration the communities and their landscape, and achieve enhanced environmental performance and comprehensive environmental compliance.
 - b) Stimulate the local economy by maximizing local business participation in implementing the project.
 - c) Maximize use of minority or local business enterprises.
 - d) Gender perspective.
 - e) Engage communities and stakeholders to proactively participate in the project from planning stage up to implementation/ construction stage.
 - f) Develop and implement an effective Quality Program.
 - g) Achieve swift commencement and timely completion of the project.
 - h) Provide cost-effective solutions and cost-containment methodologies.
 - i) Increase Work Zone safety with engineering improvements and enhanced awareness through public information.
 - j) Minimize life-cycle cost of the project.
 - k) Any additional project goals will be included in the Special Provisions.



Obligations of the Winning Bidder/Contractor

The Contractor shall be responsible for furnishing all labor, material, plant, equipment, services, and support facilities for the following:

- a.) Design and Construction of structures in the Project components including utility relocations, if any,
- b.) All Project reference provided by the client shall be field check and verified by the Winning Bidder/Contractor,
- c.) Project construction management including Health and Safety Measures as stated in Department of Public Works (DPWH) Order No. 39, Series of 2020 “Revised Construction Guidelines for the Implementation of Infrastructure Projects During the COVID-19 Public Health Crisis”,
- d.) Project-related Public Information activities,
- e.) Coordination with Project stakeholders, other contractors, and utility Client EVSUs, if any,
- f.) Design Quality of temporary structures,
- g.) Construction Quality and Workmanship,
- h.) Maintenance and protection of traffic and access to properties (both temporary and permanent access),
- i.) Project safety and security, as per DOLE RA 9514,
- j.) Preliminary Engineering (PE), such as surveys, bore hole testing, etc.
- k.) Harmful and hazardous materials remediation (design and construction),
- l.) Drainage and erosion control
- m.) Construction waste disposal and handling,
- n.) Ancillary Work, such as access roads, driveways, temporary fencing, relocation of drainage, work sites, and temporary works,
- o.) Transportation permits for construction materials,
- p.) Coordination and relocation of utilities and municipal drainage facilities (when required),
- q.) Soil poisoning and earthworks to comply with finished ground elevation,



- r.) Administration of the project during the contract period, and,
- s.) Implementation and administration of the required to plan, implement, and maintain a Quality Plan for the Work. The quality plan will detail how the Contractor will establish and operate its quality program management structure, independent from design and construction production, and document its procedures pertaining to all aspects of the work listed below. The quality plan will be established and maintained by the Contractor such that it provides an agency- auditable system that assures the Contractor complies with all contract requirements pertaining to the general areas of the construction work. If new material/technology is to be introduced, the Winning Bidder or Contractor will refund 50% of the cost of the pay item to be replaced regardless if the cost of the new material/technology is lower or higher compared to the original work item.

V. DELIVERABLES AND TIMELINE:

Deliverables	Timeline	
STAGE I: ARCHITECTURAL AND ENGINEERING (A&E) DESIGN OF “INCREASE IN CARRYING CAPACITY OF NURSING AND ALLIED HEALTH PROGRAMS”		
1. Detailed program of work, approach, work plan and schedule for the implementation of the contract works. <ul style="list-style-type: none"> i. The order in which it intends to carry out the work including anticipated timing for each stage of design/detailed engineering design; ii. Periods for review of specific outputs and any other submissions and approvals; iii. General description of the design methods to be adopted; ii. Number and names of personnel to be assigned for each phase of the work; 	Within Ten (10) Calendar Days after issuance of NTP	
2. Reconnaissance, Engineering Surveys and On-Site Investigations.	Within Twenty (20) Calendar Days after issuance of NTP	
3. Preparation of Preliminary Plans, Elevations, Specification Outlines, Preliminary Cost Estimates, Value Engineering/ Value Analysis Study and other specific recommendations by the		



<p>Consultant for the Design for Architectural/ Civil , Structural, Sanitary/ Plumbing (Plumbing System of additional toilets and integration to main system), Electro-Mechanical (AC System location and design), Lighting and Power System, Lighting Fixtures including Parking Area, Auxiliary Works/ Network/ Cabling/ Data System (BMS in close coordination with EVSU- IT), Fire Protection System, Fire Detection and Alarm System (Smoke Detector and Sprinkler Location Plan), CATV System, PA/BGM System , Telephone System, Security/ CCTV System integrated to be BMS ready, Proposed Furnishings (Furniture Design, Cabinetries, Counters), Landscaping Works (Proposed), and Specialty Works (where required) for Approval before Final Design.</p>		<p>Within Two Hundred Forty (240) Calendar Days after issuance of NTP</p>
<p>4. Submission of Final Plans of Approved Preliminary Plans for the Design for Structural, Sanitary/ Plumbing (Plumbing System of additional toilets and integration to main system), Electro-Mechanical (AC System location and design), Lighting and Power System, Lighting Fixtures including Parking Area, Auxiliary Works/ Network/ Cabling/ Data System (BMS in close coordination with EVSU- IT), Fire Protection System, Fire Detection and Alarm System (Smoke Detector and Sprinkler Location Plan), CATV System, PA/BGM System , Telephone System, Security/ CCTV System integrated to be BMS ready, Proposed Furnishings (Furniture Design, Cabinetries, Counters), Landscaping Works (Proposed), and Specialty Works (where required) including Working Drawings, Technical Specifications, Detailed Cost Estimates for permit purposes, wherever required.</p>	<p>Within Thirty (30) Calendar Days after issuance of NTP</p>	
<p>5. Approval of Final Plans duly signed and sealed by respective professionals for Design for Architectural/ Civil , Structural, Sanitary/ Plumbing (Plumbing System of additional toilets and integration to main system), Electro-Mechanical (AC System</p>	<p>Within Forty-Five (45) Calendar Days after issuance of NTP</p>	



<p>location and design), Lighting and Power System, Lighting Fixtures including Parking Area, Auxiliary Works/ Network/ Cabling/ Data System (BMS in close coordination with EVSU- IT), Fire Protection System, Fire Detection and Alarm System (Smoke Detector and Sprinkler Location Plan), CATV System, PA/BGM System , Telephone System, Security/ CCTV System integrated to be BMS ready, Proposed Furnishings (Furniture Design, Cabinetries, Counters), Landscaping Works (Proposed), and Specialty Works (where required) including Working Drawings, Technical Specifications, Detailed Cost Estimates for permit purposes, wherever required, and Bid Documents.</p>		<p>Within Two Hundred Forty (240) Calendar Days after issuance of NTP</p>
<p>STAGE II: CONSTRUCTION OF THE “INCREASE IN CARRYING CAPACITY OF NURSING AND ALLIED HEALTH PROGRAMS” THREE (3) STOREY BUILDING WHICH CAN BE COVERED BY THE BUDGET</p>		
<p>MOBILIZATION AND SITE PREPARATION</p>	<p>Within Seven (7) Calendar Days after Approval of Final Plans</p>	
<p>REMOVAL OF EXISTING STRUCTURES</p>	<p>Twenty (20) Calendar Days after receipt of NTP</p>	
<p>FOUNDATION WORKS</p>	<p>Within Two Hundred Forty (240) Calendar Days after issuance of NTP</p>	
<p>STRUCTURAL WORKS</p>		
<p>CIVIL WORKS</p>		
<p>ELECTRICAL/ ELECTRONICS WORKS</p>		
<p>PLUMBING/ SANITARY WORKS</p>		
<p>FIRE PROTECTION WORKS</p>		
<p>TESTING AND COMMISSIONING, PUNCHLIST AND RECTIFICATION</p>		
<p>PROJECT ACCEPTANCE AND TURN-OVER</p>		



VI. STANDARD OF SERVICES:

The Designer/Contractor shall undertake the design-build services by utilizing its technical knowledge and best-accepted professional standards. The Designer/Contractor shall carry out the services based on sound architectural and engineering theories and practices to ensure that the final works will provide the most economical, “smart” and feasible building. Further, the contractor shall provide an adequate number of personnel of known qualifications and experience.

VII. DURATION OF THE CONTRACT:

The Design and Build Scheme will cover TWO HUNDRED FORTY (240) CALENDAR DAYS or Eight (8) Months or Thirty-Two (32) Weeks.

The **Stage I - Architectural and Engineering (A&E) Design of the “Increase in Carrying Capacity of Nursing and Allied Health Programs”** shall be completed within FORTY-FIVE (45) CALENDAR DAYS starting from the receipt of the Notice to Proceed (NTP).

The **Stage II - Construction of the “Increase in Carrying Capacity of Nursing and Allied Health Programs” Three (3) Storey Building which can be covered by the budget** shall be completed within TWO HUNDRED FORTY (240) CALENDAR DAYS starting from receipt of Notice to Proceed (NTP).

VIII. DESIGN AND BUILD SCHEME QUALIFICATIONS:

A local Design and Build firm with experience in Architectural and Engineering (A&E) Design and Construction of Buildings with the following qualifications:

1. Must be operational and engaged as a consultancy and construction firm at least five (5) years;
2. Must have satisfactorily completed a contract for a similar project with magnitude and complexity at least equivalent to the proposed project; and
3. The contractor must likewise pass the eligibility requirements under Section 24 of Republic Act 9184, otherwise known as the Government Procurement Reform Act and its Revised Implementing Rules and Regulations (RIRR).

IX. PERSONNEL QUALIFICATION REQUIREMENTS:

As a minimum requirement, the Designer/ Contractor shall provide licensed and professional personnel with adequate technical experience in the design, implementation and supervision of contract works:



MINIMUM CONTRACTOR'S TEAM COMPOSITION/MANPOWER NETWORK

DESIGN TEAM	Number	General Experience	License/ Certification	Relevant Experience
Principal Architect/Engineer	1	10	PRC and UAP/PICE	5
Project Manager/ Coordinator	1	10	PRC and UAP/PICE	3
Project Designer Engineer, Structural/Civil	1	10	PRC and UAP/ PICE/ASEP	3
Project Design Engineer, Mechanical	1	7	PRC and PSME	3
Project Design Engineer, Electrical	1	7	PRC and IIEE	3
Project Design Engineer, Electronics	1	7	PRC and IECEP	3
Project Design Engineer, Plumbing/Sanitary	1	7	PRC and PSSE	3
Network Engineer	1	5	CCNA/CCNP or JNCDA/JNCDS	2
Engineering Assistant/Draftsman	1	5	Proficient in CAD and Sketchup of the latest version for support and production of design plans/ drawings and other needed documents	2

Note: All work experience for the proposed positions is verifiable by EVSU.

CONSTRUCTION TEAM	Number	General Experience	License/ Certification	Relevant Experience
Project Manager	1	10	PRC and UAP/PICE	5
Architect and Engineers (Civil, Electrical, Mechanical, Sanitary and Electronics)	4	7	PRC and UAP/PICE/IIEE/PSME/PSSE/IECEP	3-5
QA/QC Civil, Electrical, Electronics, Mechanical	3	5	Relevant Certification	3-5
Materials Engineer	1	5	Relevant Certification	3
Environment, Health and Safety Officer	1	5	Relevant Certification	3
Construction Foreman	1	7	Relevant Certification	5

Note: All work experience for the proposed positions is verifiable by EVSU.



In the execution of the design and build scheme, multi-tasking by or nomination of key personnel to more than one of the above-stated fields or professions is prohibited.

The Designer/ Contractor shall provide additional personnel as may be required and pertinent to the accomplishment of the project in its entirety at no additional cost to EVSU.

The Designer/Contractor shall likewise provide copies of the Professional Regulation Commission (PRC) Licenses and Latest Professional Tax Receipt (PTR) of their personnel and list of on-going and completed projects (both private and government) within the years of relevant experience required.

Except as otherwise agreed upon by the EVSU, the personnel for the project shall consist of those indicated in the Work Plan and List of Key Personnel submitted and no changes shall be made in the key staff. In the event any employee resigns, is discharged or withdrawn, the Designer/Consultant shall provide suitable personnel of equivalent or of better qualifications acceptable to EVSU.

X. ESTIMATED BUDGET FOR THE CONTRACT AND TERMS OF PAYMENT:

A. FEE

For and in consideration of the faithful, satisfactory and full performance of all the works and requirements under this contract, EVSU agrees to pay the Designer/Contractor an amount not exceeding the Approved Budget for the Contract of **TWENTY-THREE MILLION THREE HUNDRED FORTY-SIX THOUSAND PESOS (Php23,346,000.00)** after observance of the required procedures in compliance with the Government Procurement Reform Act (Republic Act No. 9184) and Government Accounting and Auditing Manual.

Breakdown:

Stage 1	Architectural and Engineering (A&E) Design of “Increase in Carrying Capacity of Nursing and Allied Health Programs”		
Stage 2	Construction of “Increase in Carrying Capacity of Nursing and Allied Health Programs” which can be covered by the budget		
	ABC for the Design-Build	=	Php23,346,000.00

B. ADVANCE PAYMENT

An advance payment not to exceed fifteen percent (15%) of the Contract Price in Philippine Peso shall be made upon the submission of a written request per stage of work by the Designer/Contractor to cover the cost of Mobilization. The advance payment shall be deducted by the EVSU in equal installments against the statements for the progress billings of the Services until the Advance Payment has been fully deducted.



Advance Payment shall be made only upon the submission to and acceptance by EVSU of an Irrevocable Standby Letter of Credit or equivalent value from a commercial bank, a bank guarantee or a surety bond callable on demand, issued by a duly licensed surety or insurance company and confirmed by EVSU.

C. TERMS OF PAYMENT

The payment scheme below shall be observed in the processing of payment in favor of the Design and Build Scheme.

Mode of Payment/Deliverables		Percentage (%)
1	Advance payment/ Mobilization Fee	15%
2	Progress Billing	75%
3	Retention Fee	10%

The following documents must be submitted to EVSU before processing of payments to the Contractor:

- a) Progress Billing
- b) Detailed Statement of Work Accomplished (SWA)
- c) Request for Payment by the Contractor
- d) Photographs of Works Accomplished

In consideration of the payment, the Designer/Contractor agrees and undertakes to execute and complete the Design and Build Services and remedy any defects therein in conformity with the provisions of the Contract.

The Designer/Contractor shall also undertake to pay taxes in full and on time and that failure to do so will entitle the government to suspend payment for any services delivered.

XI. RESPONSIBILITIES OF THE DESIGNER/CONTRACTOR:

STAGE I:

ARCHITECTURAL AND ENGINEERING (A&E) DESIGN OF "INCREASE IN CARRYING CAPACITY OF NURSING AND ALLIED HEALTH PROGRAMS"

- 1) The Designer/Contractor shall undertake all works necessary for the A&E Design of the "Increase in Carrying Capacity of Nursing and Allied Health Programs";
- 2) Conduct preliminary engineering studies and activities required for the A&E Design of the proposed building project, in compliance with the provisions of relevant laws, ordinances, codes, rules and regulations;



- 3) Consult and verify with EVSU to ascertain the requirements of the proposed project;
- 4) The Designer/Contractor shall provide TEN (10) COMPLETE SETS in A1 Standard Size (including one original in tracing paper) of the approved plans/drawings, specifications and other documents of the project. However, when extra sets of plans/drawings are required, the cost of production shall be at the expense of EVSU. The Designer/Contractor shall also provide a soft copy of plans/drawings, cost estimates and other documents related to the A&E Design of the project to EVSU.

STAGE II:

CONSTRUCTION OF THE “INCREASE IN CARRYING CAPACITY OF NURSING AND ALLIED HEALTH PROGRAMS” THREE (3) STOREY BUILDING WHICH CAN BE COVERED BY THE BUDGET

- 1) The Designer/Contractor shall undertake all necessary Construction Works of the “Increase in Carrying Capacity of Nursing and Allied Health Programs”;
- 2) Acquire all clearances and permits (*se ANNEX G*) necessary for the Project by providing all documentary requirements without incurring require payments of fees to the Government or Agency of the Government;
- 3) The Designer/Contractor shall verify existing drawings/plans that were the basis of the project and shall make sure that all works conform to regulatory requirements.

The Designer/Contractor shall also assist EVSU in the Post-Construction Services such as but no limited to:

- a) Preparation of checklist/punch lists of the defects/deficiencies and monitor rectification works thereof;
- b) Providing As-Built plans duly signed and sealed by the concerned engineers/designer with his/her valid PRC license number, validity of license. and current PTR number affixed/stamped on every page/sheet of the document of the following:
 1. Architectural
 2. Structural/Civil
 3. Electrical
 4. Electronics
 5. Mechanical
 6. Fire Protection/Fire Prevention
 7. Other Specialty Works
- c) All As-Built Plans and Documents shall be delivered in sets as follows:
 1. One (1) set Original Copies, with the working drawings in the smallest scale of 1:100 meters prepared in CAD format, printed/plotted in Mylar paper



- original copies;
 2. Five (5) sets of Blueprint copies for each plan
 3. Two (2) sets of soft copies of AutoCAD plans/drawings and PDF format of Cost Estimates, Specifications, PERT-CPM, Schedule of Timeline, and other related documents in CD-ROM/Flash Drive Storage device;
 4. Other documents processed and issued in favor of EVSY during the construction period (i.e. Inspection Reports, Record Book, Building/ Mechanical/ Electrical Permits, Fire Safety Reports, Clearances, Certificates and related documents)
- d) Consolidated Project Records, Operating and Maintenance Manuals and Guides for easy reference.
- e) Assist in the preparation and issuance of Certificate of Completion of Works and Turn-Over Ceremonies.

A. Special Instruction/Information to Bidders

All the figures given in the TOR except those that are detailed by Client EVSU as a primary requirement parameter will be used only as reference or guide in preparing preliminary conceptual design and financial proposal. All references of the Project shall be field checked and verified by the Winning Bidder/Contractor.

B. Submission of Bids/Proposals

Bidders/Contractors/Developers shall be required to submit their Proposals under a two-envelope system such as the following:

B.1 1st Envelope: Technical Proposal

- 1.) Complete set of Plans based from the Client Concept and requirements, statutory requirements from DOLE RA 9514 & National Building Code of the Philippines PD 1096, and other relevant standards, A2 size of convenient size and scale, in two (2) white/blue print copies, duly signed and sealed by a licensed Architect/Civil Engineer.
- 2.) Vicinity Map drawn on A1 size of convenient size and scale, in two (2) white/blue print copies, duly signed and sealed by a licensed Civil Engineer.
- 3.) Project Execution Plan to include but not limited to-
 - a. containing the list of relevant Management and Design Team, its Staff, Construction Phase Engineer's, Material Engineer, QA/QC Engineer, Safety Engineer and Officers, Construction Foreman, Number of Skilled and Non-Skilled Workers based on Project Timeline PERT and GANTT Chart;
 - b. Hazard Identification Plan (HAZIP);
 - c. Inspection & Test Plan (ITP) for all verifiable activities that needs to be signed-off by Client EVSU;
 - d. Manpower Loading;
 - e. Material Delivery Schedule.



- 4.) Ground Profile Levelling based on Client EVSU minimum requirement in A1 size of convenient size and scale, in two (2) white/blueprint copies, duly signed and sealed by a license Civil Engineer
- 5.) Design Schematic Diagram with narrative duly signed and sealed by licensed civil engineer in two copies.
- 6.) List of Tools and Equipment to be used for the execution of the contract (refer to list of minimum equipment)
- 7.) Contractor/Bidder are enjoined to provide additional information if deemed necessary to clearly illustrate their respective specifications.
- 8.) All plans, technical specifications, and cost estimates submitted by the Bidders should be correlated with one another. Should there be any difference or variation among these documents, the technical specification shall prevail which shall become the basis of bid evaluation.

B.2 2nd Envelope: Financial Proposal

The Financial Proposal shall comprise all the required documents enumerated in the ITB including the following additional documents:

- 1.) Prescribed Financial Proposal Submission Form;
- 2.) Detailed estimates/computation in coming up with the unit cost (DUPA);
- 3.) Summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals used in coming up with the bid; and
- 4.) Cash flow by quarter and payment schedule.

C. Eligibility Requirements

Requirements shall conform to the applicable provisions of Section Nos. 23-24 and Annex "G" of the revised IRR of RA 9184, as amended.

Procedures in the evaluation of the interested Contractors/Developers shall be in accordance with Section Nos. 9-12 and Annex "G" of the Revised IRR of RA 9184, as amended.

To be eligible to participate in the public bidding, prospective Contractor/Developer must pass the following criteria:

- 1.) The Contractor/Developer must have signified its intention to participate in the public bidding pursuant to the provisions of the IRR of RA 9184, as amended, as per published invitation to Submit Bids/Proposals.
- 2.) Basic Qualification: The prospective Contractor/Developer must be registered with the Securities and Exchange Commission (SEC), the Department of Trade and Industry (DTI) or the Cooperative Development Authority (CDA) with authority to conduct business whichever is applicable.
- 3.) Financial Capability: The prospective Contractor/ Developer must meet



the Financial Contracting Capacity to undertake the project, as determined through the following formula:

Net Financial Contracting Capacity (NFCC). This will establish the value or cost of the project which the Contractor can undertake. The NFCC is computed as follows.

$NFCC = (\text{Current assets minus current liabilities}) (15)$ minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started.

4.) Experience and Track Record Requirements:

- The prospective Contractor/Developer must have completed a single contract that is similar to the contract to be bid, and whose value, adjusted to current prices using the National Statistics Office (MSO) consumer price indices, must be at least fifty percent (50%) of the Approved Budget of the Contract (ABC) of the specified project. ***The Contract Similarity shall be defined as similar to the Major Category of Works as indicated in the Scope of Works including its specific item of works herein provided.***

5.) PCAB License: The prospective Contractor/Developer must possess a valid PCAB License Category A and be Registered *with classification General Building GB1- (Building or Industrial Plant)*.

6.) For Contractor/Developer who does not possess the required valid PCAB License/Registration and Size Range corresponding to the contract for bidding may enter into a Joint Venture. Agreement (JVA) or *consortium* with a PCAB Licensed Contractor/Developer to secure a Special License prior to the bidding of the project for the purpose of compliance with this requirement.

7.) List of Design and Construction Personnel and Equipment as provided under Section 10.1, iii of Annex 'G' of the IRR of RA 9184, as amended. The prospective Designer's/Contractor's Key Personnel must have sufficient experience in the relevant aspect of schemes similar or related to the project(s) under bidding and must own, or with lease contract and/or under purchase agreements, sufficient major construction equipment necessary to undertake the Project.

8.) Background and Performance Check: The BAC must ensure that a thorough background investigation have been conducted on the prospective Designer/Contractor to gain as much information possible pertinent to the identity of the prospective Designer/Contractor, its completed and ongoing projects, financial capability, track record for the past five years, as well as its reputation.



- 9.) Designer/Contractors who meet all of the above-cited criteria shall be considered as eligible Bidders to participate in the procurement of specific project(s) pursuant to the provisions of the IRR of RA 9184, as amended.

D. Documents to be provided to the Bidders

The CLIENT EVSU shall provide the following documents to facilitate the Bidders/ Contractors/ Designer in the preparation of their bid proposals:

- 1.) All technical data and documents related to the project.
- 2.) In order to keep the unity and integrity of the project and facilitate the review of bid proposals, the following plans as provided by the CLIENT EVSU, subject to revisions if found necessary, shall be complied with:
 - ✓ General Lay-out Plan such as but not limited to the road plans, facility arrangement plans and lighting plans.
 - ✓ Structural building plans and details (unless part of the design requirement)
 - ✓ Electrical building plans and details (unless part of the design requirement)
 - ✓ Mechanical Infrastructure units and details, including HVAC & fire-fighting lay-out plans & details (unless part of the design requirement)
 - ✓ Plumbing building plans and details (unless part of the design requirement)
 - ✓ Architectural plans such as but not limited to the elevation and sections, doors and windows schedules, toilet and kitchen details, stair details and reflected ceiling plans of the building. (unless part of the design requirement)
- 3.) Bidders are also encouraged to use new construction materials and/or methods/ technology.
- 4.) The checklist of documents to be provided by the Client EVSU to bidders is hereto attached.
 - a.) Lot Plan/ Vicinity Map/ Site Development Plan for compliance.
 - b.) Architectural Building Plans for Compliance
 - c.) Structural Building Plans for Compliance (unless part of the design requirement)
 - d.) Electrical/ Mechanical Plans for Compliance (unless part of the design requirement)
 - e.) Sanitary/ Plumbing Plans for Compliance (unless part of the design requirement)
 - f.) Minimum Technical Specifications in Comparative Form/ Presentation vis-à-vis the Bidders Proposal (unless part of the



- g.) design requirement)
g.) Construction Schedule (S-Curve and Bar Chart) (unless part of the design requirement)

E. Evaluation of Bids

For detailed evaluation of the Design and Build proposals, a two-step procedure shall be adopted by the BAC. The Design and Build Committee (DBC) shall serve as the Technical Working Group (TWG) to assist the BAC in the evaluation of Bid proposals.

E.1 First-Step Procedure

The First Step Evaluation shall involve the review of the Technical Proposal and track record submitted by the Bidder/Contractor/Designer as indicated in this TOR and the Bidding Documents using the non-discretionary “pass/fail” criteria that involve compliance with the following requirements:

- 1.) Compliance to the documentary requirements for submission by the Bidders as enumerated in the Annexes “B” and “B1” (Technical Proposal).
- 2.) Adherence of preliminary design/plans to the required performance specifications and parameters of CLIENT EVSU to be shown in the comparative matrix; duly signed and sealed by the respective Registered License Professionals and the President/CEO of the company, for plans prepared, signed, and sealed by the bidder.
- 3.) Quality of personnel to be assigned to the project which covers suitability of key staff to perform the duties of the particular assignments and general qualifications and competence including education and training of the key staff.

E.2 Second-Step Procedure

Only those Bids that passed the above criteria shall be subjected to the Second Step Evaluation

The BAC shall open the Financial Proposal of each Contractor who passed the First-Step Procedure and shall evaluate it using non-discretionary pass or fail criteria including arithmetical corrections for computational errors — as stated in the Bidding Documents and thus determine the correct total Calculated Bid Prices. The BAC shall automatically disqualify any total Calculated Bid Price which exceeds the Approved Budget for the Contract (ABC). The total Calculated Bid Price (not exceeding the ABC) shall be ranked in ascending order, from lowest to highest. The bid with the lowest total Calculated Bid Price shall be identified as the Lowest Calculated Bid (LCB).

The LCB shall be subject to post-qualification in accordance with Section 34, Rule X of the IRR of RA 9184, as amended, to determine its responsiveness to the eligibility and bid requirements. If after post-qualification the LCB is determined to be post-qualified it shall be considered the Lowest Calculated



and Responsive Bid (LCRB) and the contract shall be awarded to the bidder. In case of post-disqualification of the LCB, the procedure under Section 34 shall also be followed.

XII. DETAILED DESCRIPTION OF SCOPE OF WORKS

“Design and Build” Scheme (DBS) instruction for work items

The Contractor shall be responsible for furnishing all services and support facilities, provision of labor requirement, supply of materials, and deployment of appropriate equipment and machineries for the project. Below are some of the work and action items enumerated:

- 1.) General Work and Support Facilities Items includes but is not limited to:
 - a.) Mobilization (& Demobilization) of Staff, Personnel, and Equipment,
 - b.) Site Clearing and Provision of Field Office for Staff/Personnel,
 - c.) Posting of Project Information Billboard,
 - d.) Occupational Safety and Health Identification, Hazard Prevention, Mitigation, and Protocols, and,
 - e.) Coordination with Client EVSU who will assist the Contractor the necessary permits and clearances for project commencement.

- 2.) Design and construct the building complete with structural design analysis/computation, excavation, anchor works, backfill, compaction, all piping system, site development, if required, and all other works as specified in the TOR/specifications and approved drawings.

Site development may include some measure of erosion prevention, provision for diversion ditch for surface runoff, temporary access road, protection against livestock and/or wildlife contamination and instances that could lead to reduced surface run-off yield,

The anticipated Contractor work items for the building construction includes but is not limited to:

- a.) Temporary Site Access
- b.) Construction Safety: Barricade & Early Warning Set-up,
- c.) Excavation,
- d.) Backfill & Compaction,
- e.) Cutting & Breaking of Rock Formation,
- f.) Removal of obstruction,
- g.) Embankment works on structure excavation,
- h.) Embankment works on Cut & Fill Earthworks,
- i.) Gravel Fill,
- j.) Forms & Scaffolding Works,
- k.) Plain & Reinforced Concrete Works.



This project will focus on the foundation work of the Increase in Carrying Capacity of Nursing and Allied Health Programs.

XIII. CONCEPTUAL DESIGN BASIS, AND PARAMETERS

Division I – Civil Works/Earthworks/General Works

The following schemes are proposed as the conceptual design and basis by the contractor/consultant of the Detailed Design.

- 1.) DETAILED SURVEY WORKS
 - a.) All survey works shall be field checked and verified by the contractor.
- 2.) MATERIALS
 - a.) Standard materials shall follow the Blue Book prescriptions, among other things, the material requirements and construction requirements for different items of work, including the tests to be conducted during construction by any DPWH-accredited testing laboratory. The Blue Book incorporates pertinent provisions of the American Society for Testing and Materials (ASTM) and American Concrete Institute (ACI), among other standards, pertaining to construction.
 - b.) For other materials, these shall be subjected to standard testing procedures and approved by Client EVSU.
- 3.) ALL OTHER REQUIREMENTS SHALL BE DEFINED AND SPECIFIED IN THE PROJECT DESCRIPTION.
- 4.) FOR ALL STRUCTURAL DESIGN AND ANALYSIS, THE FOLLOWING CRITERIA AND PARAMETERS MUST BE UTILIZED:

Standard Design Codes and References

The following standard codes and references shall be used where applicable.

- a.) American Concrete Institute (ACI) Standards
 - ✓ ACI 318 - Building code requirements for reinforced concrete structures
 - ✓ ACI 315 - Manual of standard practice for details and detailing of concrete reinforcement
 - ✓ ACI 350 - Environmental Engineering Concrete Structures
- b.) Structural Design Manual Specifications
- c.) National Structural Code of the Philippines (NSCP) 2015
- d.) National Building Code of the Philippines and its revised IRR
- e.) Philippine National Standards (PNS)
- f.) American Society of Testing and Materials (ASTM)



- g.) DPWH Blue Book
- h.) Uniform Building Code (UBC)
- i.) Steel Construction Manual (AISC)
- j.) Portland Cement Association (PCA) Concrete Information
- k.) Accessibility Law
- l.) Local Codes and Ordinances

Division II – Electro-Mechanical Works

1.) GENERAL

- a.) The Contractor shall design, furnish, deliver, install and test at site all mechanical equipment as shown on the Drawings and/or specified herein. He shall provide the necessary supervision, tools, materials, supplies and appurtenances for the proper installation, testing and operation of the completely assembled equipment. The contractor shall accomplish the work in a complete and finished manner in keeping with good supervisory practice in accordance with the drawings, manufacturer's recommendations and to the satisfaction of the Engineer.
- b.) All equipment furnished and installed shall be brand new and non-obsolete model (at most three years ex-stock), unused and guaranteed from defects in material, design and/or workmanship. No equipment nor material shall be delivered for installation on site prior to:
 - A. The return of acceptable shop drawings submitted by the Contractor in accordance with Division 7. Shop drawings of imported items which are ex-stock, shall be accompanied with importation papers to prove conformity with the three-year ex-stock requirement;
 - B. The equipment successfully passed the laboratory test to be conducted at the manufacturer's plant in the presence of authorized Client EVSU representatives. For imported equipment, certified copies of the performance test shall be furnished to the Engineer in accordance with Clause 7.02 prior to shipment. In no case shall the Contractor be allowed to deliver and install any equipment until satisfactory laboratory tests have been conducted.
 - C. Submission of a certificate of availability of parts and service locally for five (5) years, for all equipment supplied herewith to ensure operational viability of the installation within the said period.

All costs incidental to the above pre-delivery requirement shall be borne entirely by the Contractor.

- c.) Upon completion of the contract work, the Contractor shall arrange that a field testing be conducted on the installed equipment;



- d.) In the presence of authorized Client EVSU Engineers, the test shall be made to show that the installed equipment satisfies its specifications and operational requirements.
- e.) In the event of failure of the equipment to meet the guaranteed performance or to operate to the Engineer's satisfaction, the Contractor shall make such modifications, repairs and/or replacements and shall receive no additional compensation thereof. Failure of the equipment to meet the contract requirements in three (3) official field tests shall be a ground for rejection of the unit. Expenses to be incurred, including the travel expenses of Client EVSU, during the second, third and any subsequent official field test of the same equipment shall be charged to the Contractor/Supplier. The contract work will not be accepted, and final payment will not be recommended until a satisfactory test has been made. The test run shall be made within thirty (30) days upon receipt of the Contractor's request for such testing. Provided, however, that if the Engineer/s fail to appear and witness the test within the said period the field test shall not further delay the acceptance of the work.
- f.) Above field test shall be made only after the Contractor has furnished the Engineer, a copy of satisfactory results of his initial or preliminary tests on the equipment as part of his work and without cost to the Client EVSU. Only after all the equipment has been properly installed, tested and adjusted shall the new facilities be put into operation.
- g.) During the testing of the equipment, the Contractor shall arrange to have available, as necessary, representatives of the manufacturers of all the various pieces of equipment or other qualified persons who shall instruct the plant personnel in the operation and care thereof. These representatives shall have spent at least 72 working hours for the instruction and training of authorized Client EVSU representatives. A certificate of completion of this requirement shall be issued by the Client EVSU and shall form part of the Certificate of Project Completion of the contract works.
- h.) The equipment and installation shall be guaranteed for a period of at least one (1) year of trouble-free operation. A warranty certificate shall be issued by the Contractor to this effect. Effectivity date of the warranty shall start on the same day the units have been accepted. A duplicate copy of the same shall be furnished to the Engineer. The Contractor shall furnish and replace, without cost to the Client EVSU, any equipment or part that is defective or shows undue wear within the one (1) year warranty period.
- i.) All equipment furnished under these Specifications shall comply with all applicable mandatory safety codes.
- j.) Where materials of construction are not specified, the Contractor shall



use first class commercial grades best suited for the particular use for which they are employed.

- k.) The Contractor shall employ licensed Mechanical and/or Electrical Engineer/s to supervise the mechanical and/or electrical works as required by Commonwealth Act No. 294, known as the Mechanical Engineering Law and Republic Act No. 184, known as the Electrical Engineering Law.

2.) GENERAL CLIENT REQUIREMENTS

- a.) The project execution requirements shall comply, as a minimum, with the latest DOLE OCCUPATIONAL SAFETY AND HEALTH STANDARDS of 1990, and the latest version of the NATIONAL BUILDING CODE OF THE PHILIPPINES (PD 1096);
- b.) In case of conflicting requirements between Client (EVSU), the statutory requirements and the industry standards, the requirements of Client EVSU shall prevail over the statutory requirements and industry standards, while the statutory standards shall prevail over the industry standards. Conflicting requirements shall be made known in writing to the Client EVSU within 24 hours of its discovery and shall be immediately replied within the same period of time to the Contractor on the corresponding advice and action to be taken. No change order shall be entertained;
- c.) All Mechanical, Heating, Ventilating, and Air Conditioning Works shall be based on relevant standards, unless specified in this TOR;
- d.) No work shall commence without an approved HAZIP and ITP for the activities sought to be accomplish;
- e.) All works sought to be commenced shall have the necessary and mandatory managerial, supervisory, technical, skilled and non-skilled personnel as declared by the Contractor on its Project Execution Plan. Client EVSU with its representative shall check the physical site presence of these personnel, and report to EVSU the same. In cases that Contractor does not have the corresponding personnel on site, Client EVSU shall have the right to deduct corresponding amount as reflected on the values of those reported absent based from the Project Execution Plan;

3.) DETAILED CLIENT REQUIREMENTS

Welding Works:

- a.) All or any welding works shall be executed as per AWS D1.1 Standards, unless specified in this TOR;
- b.) All or any welding works of the Contractor shall comply with this enumeration, and those not enumerated shall be taken from AWS D1.1



Standards in supplementary character:

1. Contractor shall prepare and submit a consolidated Inspection & Test Plan for all Mechanical, Welding, Heating, Ventilating, and Air Conditioning works for approval by EVSU QA/QC Mechanical/Welding Representative “PRIOR” to commence any work. All Contractor activities shall be monitored, recorded, supervised, and updated to the Client. EVSU QA/QC Mechanical/Welding Representative participation for each ITP listed activities shall either be monitoring, inspection;
2. All ITP based activities shall include among others the relevant specification requirements, the sub-section, the frequency of inspection, the Contractor Representative participation, the 3rd Party Representative participation, and the Client Representative participation;
3. All request for inspection shall be in writing based on the Client-Approved Form, submitted by the Contractor along with the ITP for Review & Approval;
4. Preparation of a WPS that shall be submitted to EVSU QA/QC Mechanical/Welding Representative for REVIEW, and/or APPROVAL; All welds for both WPQR & WPQT shall be subject to third- party independent NDT and Destructive Testing;
5. Any change in welding parameters, weld position, and type of materials not covered by TYPE of Material Range under AWS or ASME shall be subject to another WPS;
6. 20% of the Production welds selected randomly by EVSU QA/QC Mechanical/Welding Representative shall be tested using MPI, and carried-out by an approved 3rd Party Agency Representative, duly qualified and approved by EVSU QA/QC Mechanical/Welding Representative;
7. All Contractor-designated/nominated welders shall undergo WPQT for the approved WPS, unless the Welder itself in the Welder who carried-out the successful welding on the WPQR;
8. All accepted welds shall be duly signed and acknowledged by the 3rd Party Agency Representative/Technician and shall be reflected on the Issued-For-Construction (IFC) Drawing;

Heating, Ventilating, and Air Conditioning (HVAC):

- a.) All laboratory rooms shall be designed as Positive Pressure Room of at least 8 Kpa “verifiable” difference.
- b.) All Air Intake units shall likewise be provided HEPA (High Efficiency



Particulate Air) Filter, and with replacement filter that can be sourced either locally or domestically. The replacement filter source shall guarantee at least 15 years of post-sales replacement part availability. Such guarantee shall be in the form of an original certificate from the Supplier, duly signed and acknowledged by both the Supplier and the Contractor.

- c.) All air ventilation design calculations shall be based on at least 12 times the volume of the rooms that shall be completely replenished per hour with a range between 50% to 80% exhaust air evacuation volume that can comply with the mandatory 8 Kpa difference;
- d.) All non-laboratory rooms shall be provided with at least 6 times the room volume per hour filtered by the Air Intake Unit. No exhaust unit is required;
- e.) All rooms shall be provided with Split-Type Air Conditioning unit operating and compatible with 60 Hertz Frequency, and with the same type, size, brand, rating, and capacity for the REDUNDANT UNIT;
- f.) Each Air Conditioning Unit provided in the room is the actual requirement, and the second unit shall represent the redundant unit with the same capacity as the main unit.

Fire Fighting System

- a.) Unless specified, all Fire-fighting and fire suppression systems shall be based from Republic Act 9514 which will act in suppletory character if the Client Specification on some of the items are over and above the RA 9514 requirements. All specifications duly specified by Client over and above statutory requirements shall prevail and shall not be subject to an additional claim by Contractor. Any alternative proposal in writing by Contractor in lieu of the specified requirement by Client, even when the corresponding statutory requirements allows it to, shall only be entertained by the Client if Contractor has fully justified the reason for change, and is willing to waive at least 50% of the item cost proposed to be changed by Contractor. Such stipulation is designed to discourage introduction of changes that directly affects the quality of items preferred by Client to be used on this Project;
- b.) Fire suppression system shall be at least composed of three (3) types of pump in a skid-mounted arrangement; namely, (1) Diesel-powered suppression pump, (2) Electric-powered suppression pump, and (3) Electric - powered 4-stage vertical pump as the jockey pump;
- c.) Minimum residual pressure shall be at least 100 psig on the remote fire sprinkler outlet;
- d.) Maximum sprinkler spacing shall be 15 ft;
- e.) Fire suppression volume shall be kept at a minimum verifiable discharge volume of 500 gpm;
- f.) Minimum Fire-Fighting Riser Pipe Diameter shall not be less than 4" Ø;



- g.) Minimum Level Distribution Pipe Diameter shall not be less than 2" Ø;
- h.) Minimum Pipe Diameter on Sprinkler shall not be less than 1" Ø;
- i.) Minimum sustained fire-fighting supply capability shall not be less than 30 minutes;
- j.) Fire-fighting tank capacity shall be equal or greater than the Fire suppression volume multiplied by the sustained fire-fighting supply capability divided by 80% (20% remains unused);
- k.) Fire-fighting tank shall be constructed as a leak-proof and monolithic reinforced concrete tank from base to side wall, and shall be verified as such by Client Representative;
- l.) Jockey pump switch-on setting shall be at least 10 psig higher than the cut-off pressure setting of the fire- suppression pumps;
- m.) All levels shall have at least two (2) complete set of Fire Fighting Cabinet composed of but not limited to – Fire Hose (100 ft), Fire Hose Reel, Fire Hose Nozzle, Fire Extinguisher, Fireman's Axe, WOG Brass Gate Valve, and the clear/breakable glass cabinet which houses the items enumerated;
- n.) All fire-fighting system components, piping, and accessories shall all be in red color;
- o.) Minimum of two (2) – two-way commercial type fire hydrant shall be installed within 100 meters from building, but shall be pinpointed and determined on a later stage;
- p.) All rooms and offices shall be provided with upright sprinkler head while all entrance, exits and hallways shall be provided with both upright and sidewall sprinkler head, where applicable;
- q.) Hydrostatic Test Pressure sans the sprinkler system heads shall be carried-out at 224 psig for 2 hours hold time, and an acceptance criterion of 96% and without visible leak;
- r.) All escape routes doors shall have a 2-hours fire rating. QA document shall be provided by the Designer/Contractor to Client EVSU from their Supplier, stating therewith its rating and compliance with the Client requirement;
- s.) All other fire escape requirements shall be taken from RA 9514;

4.) SCOPE/LIMIT OF CONTRACT WORK

The Designer/Contractor shall be solely responsible for the supply and proper installation of all electro-mechanical equipment including all necessary requirements to fulfill the works specified herein. The contract works shall consist of but not necessarily be limited to the Design. Supply, deliver, install, testing and commissioning of following work.

- a.) Brand new units of pumping equipment which include submersible pump and motors, submersible cables, column pipes, discharge piping assembly, hypo-chlorinator unit, pump house lighting system, grounding/earthing system complete with all accessories and appurtenances in accordance with the specifications and as shown on the Drawings. Also included under pumping facilities is the pump house and the perimeter/security fencing.



- b.) Supply, delivery and installation of Fire-Fighting Skid complete with all accessories in accordance with the Specifications and as shown on the Drawings.
- c.) Supply, delivery and installation of distribution transformers and its protective devices, metering equipment and necessary materials and equipment to extend the single (1Ø or 3Ø) phase primary line from Electric Cooperative/local power provider nearest available up to proposed sites of various pumping stations.

5.) EQUIPMENT PARTS AND AFTER SALES SERVICE

The Designer/Contractor shall guarantee the availability of replacement parts and after sales service for a period of five (5) years, within the Luzon, Visayas or Mindanao areas for each piece of equipment supplied herewith. For contractors whose supplier/s has no service and parts outlet in that particular area, a Certificate of commitment from a reputable local based company to provide such parts and services shall be submitted and shall form part of the requirement prior to the provisional acceptance of the works.

- a.) The Designer/Contractor shall design, furnish, deliver, install, test and commission in accordance with these Specifications and drawings, one (1) set electro-mechanical hypo-chlorinator and one (1) set electro-magnetic flowmeter, and all other appurtenances as required in the proper installation and as specified herein and shown on the drawings.
- b.) The services of a factory representative to check the units during and after the installation shall be furnished at no cost to the Client EVSU. However, if the Designer/Contractor fails to provide the services of this representative, the Client EVSU has the right to pay the expenses incurred in the rendering of these services chargeable to the project cost.
- c.) The Designer/Contractor shall be responsible for all components, and for satisfactory installation and operation of the completely assembled unit.
- d.) Except as otherwise provided in these Specifications, any pump and motor assembly and accessories shall conform to AWWA Standard E 101-77.
- e.) The minimum pump efficiencies specified herein are the minimum laboratory efficiencies for a completely staged unit. The head capacity curve of the pump shall rise continuously to the left and the design point shall be located to the right of the point of maximum efficiency. There shall be no point within the operating range on the pump curves wherein the required horsepower exceeds the rated motor horsepower. The laboratory and field tests to be conducted on the pump assemblies shall be in accordance with AWWA Standards.



- f.) Anchor bolts for any pumps shall be furnished by the Supplier/manufacturer and set by the Contractor.
- g.) Determination of plumbness/correct alignment shall be part of pump installation.

Division III – Electrical Works

1.) GENERAL

- a.) The Electrical Work shall consist of the furnishing, all labor, materials, tools and necessary services incidental to the proper and operation of the electrical system as specified herein and as shown on the Drawings. The Drawings and Specifications are intended to provide only a broad outline of the required equipment and system of operation and may not include all details of design and construction. Any item of work or material though not expressly shown on the Drawings or specified herein but is obviously required to obtain a usable installation shall be deemed included in the required works.
- b.) All system components shall be compatible with each other and suitable for 24-hour continuous operation.

2.) CODES AND REGULATIONS

- a.) The work under this Contract shall be done in accordance with the requirements of the latest edition of the Philippine Electrical Code (PEC Parts I and II), the regulations and requirements of power and telecommunications utilities as far as their permanent services are concerned, and the government ordinances enforced in the locality. In case of conflict with these specifications or the drawings, the preceding clause shall govern.
- b.) The Designer/Contractor shall be responsible for securing all necessary permits from the pertinent government authorities, at his expense, both for the construction and for the operation of the system upon completion of the work. The Contractor shall furnish the Client EVSU with the approved Certificate of Final Electrical Inspection.

3.) MATERIAL STANDARD

- a.) All materials, components, and equipment to be supplied and/or installed shall be of recent manufacture, brand new (at most, three (3) years ex-stock), unused and suitable for intended operation. They shall conform with U.S. Underwriter's Laboratory (U/L) Standard for Safety, ASA, NEMA, IEC, IPCEA and ASTM in every case where such standards have been established, or with any other International Standards acceptable to the Engineer.



- b.) All materials and components shall be as specified unless specifically exempted, in which case, they shall be the best of their respective kind.
- c.) Samples of materials to be supplied shall be submitted for approval when required by the Engineer.
- d.) All electrical equipment and materials shall bear the manufacturer's inspection label, unless exception to this requirement is inherent to a particular item.

4.) SHOP DRAWINGS AND CATALOG DATA

- a.) The Designer/Contractor shall submit to the Engineer for approval seven (7) copies of the shop drawings of equipment and control components he intends to supply, as indicated in the drawings and specifications.
- b.) Shop drawings shall provide sufficient information to evaluate the suitability and compliance of the proposed equipment and control components with the plans and specifications.
- c.) Catalog data shall also be submitted to supplement the shop drawings. Catalog cuts, bulletins, brochures or the like, or photocopies of applicable pages thereof shall be submitted where drawings for certain items are not required to be submitted.
- d.) Should an error in the shop drawings be encountered during installation, the correction, including any field changes found necessary, shall be incorporated on the drawings and the revised drawing shall be submitted to the Engineer for review and approval.

5.) PRE-DELIVERY EQUIPMENT APPROVAL

The electrical equipment to be supplied shall be completed, assembled, wired and tested at the factory and shall be inspected and tested by the Engineer for approval prior to delivery to the project site.

6.) COORDINATION

The Contractor shall coordinate and work with all other parties with whose apparatus he shall connect part/s of the work required herein. The Contractor shall prepare drawings of details of the equipment he supplied, location of sleeves, conduits and support that may be required by other trades and shall furnish the Client EVSU with at least five (5) copies of these drawings, for the information of all parties concerned. The approval of such drawings shall not relieve the Contractor in any way from the responsibility of properly locating and/or coordinating his work with those of other parties involved.



7.) WORKMANSHIP

- a.) The work throughout shall be executed in the best and most thorough manner in accordance with the best practice of the trade involved and to the satisfaction of the Engineer.
- b.) Skilled workmen using proper tools and equipment under continuous competent supervision as required by the trade shall accomplish the works.
- c.) The Contractor shall maintain on file at the job site a set of as- built drawings incorporating all actual installation and deviations from the Drawings. The as- built drawings shall be submitted to the Client EVSU prior to provisional acceptance of the electrical works.

8.) FIELD TEST REQUIREMENT

The Supplier shall furnish labor and equipment to perform the following test:

- a.) System Test – Each panel-board shall be tested with the power equipment connected, circuit breakers closed, and all loads and fixtures permanently connected for their intended operation for a minimum of 24 hours continuous operation in the presence of the Engineer, at the expense of the Contractor. The entire installation shall be free from any ground fault and from any short circuit. In no case shall the insulation resistance be less than that allowed by PEC regulations for Electrical Equipment of Buildings and/or manufacturer’s recommendations. Failures shall be corrected in a manner satisfactory to the Engineer.
- b.) Performance Test and Equipment Setting – It shall be the responsibility of the Contractor to test the entire electrical system for the proper equipment operation. Setting of all protective relays, pilot devices, and auxiliary systems shall conform to operating requirements. The Contractor shall turnover the entire electrical installation to the Client EVSU in a satisfactory working condition.

9.) GUARANTEES

- a.) The Contractor guarantees that the supplied electrical equipment and components shall be free from any defect in workmanship or materials for a period of one (1) year from the date of Provisional Acceptance or 14 months from completion of installation, whichever comes first.
- b.) The Contractor shall indemnify and render harmless the Client EVSU and/or the Engineer from and against all liabilities due to injuries or disabilities to persons; from damages to property; or from any and all legal and other expenses which may be incurred by the Client EVSU and/or the Engineer in defense of any claim, legal action or suit arising



out of the Contractor's performance of the Contract.

10.) INTERMEDIATE METAL CONDUIT (ALTERNATE RIGID STEEL CONDUIT)

- a.) General: NEMA Standard trade sizes, UL approved or equivalent material.
- b.) Mild steel, hot dipped galvanized with inside enamel or epoxy coating.
- c.) Size. 15 mmØ (½"Ø) minimum.
- d.) Couplings, unions and fittings: standard, threaded
- e.) Use limitation: As specified in the latest edition of PEC and/or NEC.
- f.) Expansion fittings. Use for runs spanning expansion joints.
- g.) Paint field cuts and repair damaged protective coating with red or zinc lead chromate. Conduit threads shall not be painted.

Division IV- Auxiliary Works

1.) GENERAL

- a.) Information and Communication Technology (ICT) Component
 - Installation of structured cabling system for Data and Voice Connectivity and wireless network (LAN)
 - Cabling for CCTV security system
 - Packaged technical implementation and training services
 - LAN main distribution should be fiber optic technology
 - Structured Cabling System
 - Data Connectivity
 - Shall be 1RU and provide 24 modular jack ports, with universal wiring that maybe terminated to T568A or T568B
 - Shall terminate the building cabling on 100-style insulation displacement connectors
 - Other Requirement/s

Division V- Sanitary and Plumbing Works

1.) GENERAL

- a.) The Sanitary and Plumbing Work shall consist of the furnishing, all labor, materials, tools and necessary services incidental to the proper and operation of the electrical system as specified herein and as shown on the Drawings. The Drawings and Specifications are intended to provide only a broad outline of the required equipment and system of operation and may not include all details of design and construction. Any item of work or material though not expressly shown on the Drawings or specified herein but is obviously required to obtain a usable installation shall be deemed included in the required works.
- b.) The Contractor shall furnish all labor, materials and equipment necessary to complete all the works for the sanitary, drainage and water supply system. The owner shall provide necessary drilling of



water well and shall yield substantial quantity/volume of water needed to have a functional water supply system to the project site either in rainy or dry seasons. The Owner shall likewise arrange/secure consent/approval of tapping to existing water lines if necessary or requested by authorities concerned.

- c.) All works shall comply with the provisions of the Philippine National Plumbing Code, MWSS regulations, DPWH guidelines and all other codes and ordinance other local authorities having jurisdiction over the project.
- d.) “Roughing-in” for all pipes and fixtures shall be carried along with the building construction. Correct location for the pipes shall be kept in the walls and floor as specified on the plans.
- e.) All system components shall be compatible with each other and suitable for 24-hour continuous operation.

2.) CODES AND REGULATIONS

- a.) The work under this Contract shall be done in accordance with the requirements of the latest edition of the National Plumbing Code of the Philippines (RA 1378), the regulations and requirements of sanitary and plumbing utilities as far as their permanent services are concerned, and the government ordinances enforced in the locality. In case of conflict with these specifications or the drawings, the preceding clause shall govern.
- b.) The Contractor shall be responsible for securing all necessary permits from the pertinent government authorities, at his expense, both for the construction and for the operation of the system upon completion of the work. The Contractor shall furnish the Client EVSU with the approved Certificate of Final Plumbing Inspection done by a registered Master Plumber.

3.) MATERIAL STANDARD

- a.) All materials, components, and equipment to be supplied and/or installed shall be of recent manufacture, brand new (at most, three (3) years ex-stock), unused and suitable for intended operation. They shall conform with U.S. Underwriter’s Laboratory (U/L) Standard for Safety, ASA, NEMA, IPC, NSPC, and ASTM in every case where such standards have been established, or with any other International Standards acceptable to the Engineer.
- b.) All materials and components shall be as specified unless specifically exempted, in which case, they shall be the best of their respective kind.
- c.) All materials must bear the trademarks as reference of the



manufacturers. The Contractor shall furnish the Engineer with the original and copies of the certificate of origin of materials to be used.

- d.) All sanitary and plumbing equipment and materials shall bear the manufacturer's inspection label unless exception to this requirement is inherent to a particular item.
- e.) Soil, waste, Vent Pipes and Fittings shall be made of Unplasticised Polyvinyl Chloride (uPVC) - Series 1000 or whatever is indicated in the drawing and shall be of approved equivalent on property certificated by Bureau of Product Standard.
- f.) Water pipes shall be made of G.I Pipes and fittings shall be made of G.I or whatever indicated in the drawings and shall be approved equal in property certificated by Bureau of Product Standard.
- g.) Cleanouts shall be the same as pipe \emptyset , installed in connection with UPVC hubs and spigot pipes consisting of a long sweep quarter extended as indicated in the drawings. An extra heavy cast brass ferrule with countersunk trap screw cover caulked into the hub of the fittings shall be flushed with the floors.
- h.) Floor drains shall be stainless steel plated or approved equal, and locally manufactured.
- i.) Gate valves shall be G.I or bronze solid wedge type with screwed ends, or its equivalent as approved by the Engineer.
- j.) Plumbing fixtures and equipment shall be properly identified to illustrate the quality and design of fixtures that will be required. All fixtures shall have supply line with cut-off valves having chromium finish and shall be as manufactured by Philippine Standards as follows:
 - 1.) Water closet shall be of floor mounted tank type complete with all fittings. Color shall be approved by the Architect/Engineer.
 - 2.) Stainless Steel Sink shall be used in all counters with sink as indicated in the drawings. Lavatory shall be complete with necessary fittings.
 - 3.) Provide traps at every plumbing fixture and other equipment requiring connection to the drainage system.
 - 4.) Adapters shall be used to join pipes, fittings of different types and sizes and different combinations approved by the Engineer.

4.) SHOP DRAWINGS AND CATALOG DATA

- a.) The Contractor shall submit to the Engineer for approval seven (7)



copies of the shop drawings of equipment and control components he intends to supply, as indicated in the drawings and specifications.

- b.) Shop drawings shall provide sufficient information to evaluate the suitability and compliance of the proposed equipment and control components with the plans and specifications.
- c.) Catalog data shall also be submitted to supplement the shop drawings. Catalog cuts, bulletins, brochures or the like, or photocopies of applicable pages thereof shall be submitted where drawings for certain items are not required to be submitted.
- d.) Should an error in the shop drawings be encountered during installation, the correction, including any field changes found necessary, shall be incorporated on the drawings and the revised drawing shall be submitted to the Engineer for review and approval.

5.) METHODS OF CONSTRUCTION

- a.) Each building shall be provided with sanitary facilities in accordance with the best practice for mobility of disabled persons as provided in the National Building Code of the Philippines, Accessibility Law, and by other government departments having jurisdiction.
- b.) All work shall be done by a skilled worker only under the supervision of a master plumber. Contractor shall perform the work in accordance with good workmanlike practice to the satisfaction and approval of the Engineer.
- c.) On completion of the sanitary, drainage and water supply system and plumbing work and upon delivery of the building, the Contractor shall submit the “as-built” drawings of the entire plumbing system layout as actually installed in the building for future reference.

Sewer Line and Vent System

- a.) Sewer line and Vent System. Provide complete Sewer line and Vent System from all (Domestic) plumbing fixtures and floor drains; laid by gravity flow or pumping from lift or transfer station leading to the Sewage Treatment Plant (STP).
- b.) For Drainage Fixture Units, refer to Chapter 7, Table 7-2, NPCP.

Wastewater line and Vent System

- a.) For Estimated Demand Weight of Fixtures in Fixture Units; refer to Chapter 7, Table 7-2, NPCP.

Potable Water Supply System

- a.) Provide complete cold-water supply pipes to all plumbing fixtures. From the main water source to the cistern, the water shall be pumped



to the Elevated Water Tank (EWT) and conveyed to the fixtures by gravity system and or distributed to fixtures by transfer pumped with constant pressure through a Pneumatic Storage Tank to plumbing fixture, whichever is feasible.

- b.) All potable water supply system piping shall be made of PPR PN20, and S2.5 for all PPR Fittings. Non-PPR Fittings and Fixtures must be able to handle line pressure of at least 120 psig, and a water-hammer of at least 224 psig;
- c.) All level distribution pipes shall at least have an isolation valve, pressure regulator, check valve, and blow-off valve;
- d.) An elevated stainless-steel tank with a volume capacity of no less than 4 cubic meters in two 2 cubic meters volume (2 + 2) shall be provided by Contractor, and shall be complete with pump automation switching components and accessories;
- e.) A PPR Header shall be provided for the discharge line to suite size of the PPR Riser Pipe, with corresponding check valves & drain valves for each of the tank;
- f.) A Reinforced Potable Water Cistern Tank shall be provided and constructed monolithically from the base to its side wall requiring NO waterstops and shall be subject to Client EVSU verification. The size shall be no less than a quarter of the elevated tank volume divided by 80% (20% unused volume), and shall be complete with pump automation switching components and accessories;
- g.) Sufficient electric powered pump on a minimum of 2.0 Hp shall be supplied, installed, and commissioned by the Contractor for the Potable Water Supply System, complete with pump automation switching components and accessories, for each of the elevated water tank, in separate piping line;

Storm Drainage System

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

6.) DISINFECTION

- a.) The entire water distribution system shall be thoroughly flushed and disinfected with a solution containing not less than fifty (50) parts per million (50 ppm) of available chloride. The chlorinating materials shall be either liquid chloride or calcium hypochlorite or chloride lime. The disinfecting solution shall be allowed to remain in the system for a period of sixteen (16) hours, during which all valves and faucets shall



be opened and closed several times. After disinfection, the solution shall be flushed from the system with clean water until the residual chlorine content is not greater than 0.2 parts per million.

7.) MAINTENANCE

- a.) The Contractor shall maintain and keep the works in good condition in accordance with Specification. During the period of maintenance, the Contractor shall make good all defects which may appear in the pipelines trench, and in the lots in which the pipes are lined.

8.) INSPECTIONS

- a.) All plumbing systems for which permits are required by National Plumbing Code shall be inspected by the Client EVSU. No portion of any plumbing system shall be concealed until inspected and approved. The Client EVSU or his representative shall not be liable for expenses incurred in the removal and replacement of materials required to warrant proper inspection.
- b.) When the installation of a plumbing system is complete, an additional and final inspection shall be made. Plumbing systems regulated by the codes shall not be connected to the water and energy fuel supplies nor to the sewer system until authorized by the Client EVSU and other agencies concerned.
- c.) All Administrative Plumbing Personnel, Plumbing Inspector shall be a Registered and Licensed Master Plumber in accordance with the provision of Republic Act 1378.
- d.) All plumbing systems shall be tested and approved as required by the codes or the Client EVSU.
- e.) It shall be the duty of the contractor to notify the Client EVSU or its representative that such work is ready for inspection. The Client EVSU or its representative requires that every request for inspection be filed at least three (3) working days before such an inspection is intended. Such a request shall be in writing and jointly signed by the Contractor and the Contractor's Registered and Licensed Master Plumber.
- f.) It is the duty of the Contractor requesting for inspection to provide access to and means for proper inspection of such work as well as provide all the equipment, tools, power, and water required for the test.
- g.) Additional inspections not required by the National Plumbing Code, the Client EVSU or its representative may require other inspections of the plumbing works to comply with the other provisions of other codes, other pertinent laws, and ordinances enforced by the Client EVSU or its representative.



XIV. SPECIAL CONSIDERATIONS ON THE CONCEPTUAL DESIGN:

- 1.) GENDER AND DEVELOPMENT ACTION PLAN
 - a.) The Gender Action Plan (GAP) shall also form part of the contract. The contractor shall comply with the measures set forth in the GAP. Further highlighting the project's benefits in terms of community development, livelihood and income opportunities, gender and participation.
 - b.) The contractor shall adhere to RA 6685, apply core labor laws and regulations and incorporate applicable workplace occupational safety norms; strongly encourage to hire at least 20% women in skilled and unskilled positions in civil works; comply with GAD-related legal mandates, including prevention and response to gender-based violence.
 - c.) Establish and implement a mechanism that will prevent and address incidents of sexual harassment and other forms of gender-based violence occurring in the context of civil works at work and affected or surrounding communities/areas.

XV. TERMS AND CONDITIONS OF THE CONTRACT:

A. Roles and Responsibilities

- 1.) Responsibilities of Contractor/Developer
 - a.) Prepare and submit the Architectural, Structural, Electrical, AFSS/ Mechanical, Plumbing/ Sanitary and cost estimates including the corresponding cash flow and implementation/ delivery schedule for the review and approval of the Client EVSU within the 30-calendar day period reckoned from the issuance of the Notice to Award (NOA).
 - b.) Secure all necessary permits and licenses from Client EVSU for the plans and designs on Architectural, Structural, Electrical, AFSS/ Mechanical, ABR, and Plumbing/ Sanitary. Submit copies of the permits upon approval by the concerned agencies.
 - c.) Provide warranty for the complete, satisfactory and faithful performance of all works in accordance with the approved design and specifications. To guarantee the faithful performance by the winning bidder of its obligations under the contract in accordance with the Bidding Documents, it shall post a performance security prior to the signing of the contract as provided for in the Bid Data Sheet.
 - d.) Secure, for the account of the project, a Contractors All Risk and Fire Insurance equal to 100% of the project cost and maintain



such insurance policy until the project has been completed and accepted by the Client EVSU.

- e.) Coordinate and consult all matters with Client EVSU pertaining to the actual implementation of the Project through monthly submission of reports, requests and recommendations.
- f.) Handle, coordinate, and secure all necessary permits, licenses and clearances for the Project from concerned government agencies outside Client EVSU.
- g.) Assume any and all claims for the damages and/ or liabilities arising out of defects or imperfections in the construction or in the quality of works performed in the project.
- h.) Shoulder all expenses related to the processing and final approval of the land development with the appropriate government agencies, which includes but not limited to payment of all fees, permits, ECC and licenses that may be required in the implementation of the Project, as well as ROW permits with DENR/ CENRO, and Cutting/ Breaking/ & Restoration Permits with DPWH.
- i.) Facilitate the provision of water and power connection, including the payment of necessary fees.

2.) Responsibilities of Client EVSU

- a.) Review and approve all plans, designs, technical specifications, cost estimates, cash flow and delivery schedule.
- b.) Secure and shoulder the cost and expenses in acquiring the land for the expansion facilities, as well any privately- owned property where ROW is required.
- c.) Ensure compliance with requirements such as warranty for the complete, satisfactory and faithful performance of all works in accordance with the approved design and specifications.

3.) Advance Payment

The winning bidder shall be provided the 15% advance payment based on the total contract cost as indicated in the Special Conditions of the Contract. However, the Advance payment may only be released after the approval of Client EVSU of the final designs of the project, submission of which by the winning bidder should be within the prescribed 30 calendar-day period stated in the Notice of Award.



4.) Progress Payment

- a.) The Contractor may submit a Statement of Work Accomplished (SWA) or progress billing and corresponding request for progress payment for work accomplished certified/signed by authorized signatories. The SWA should show the amounts that the Contractor considers itself to be entitled to up to the end of the month.
- b.) The materials and equipment delivered on the site but not completely put in place shall be excluded from payment.
- c.) The Client EVSU shall deduct the following from the certified gross amounts to be paid to the Contractor as progress payment:
 1. Cumulative value of the work previously certified and paid for.
 2. Portion of the advance payment to be recouped for the month.
 3. Retention money in accordance with the condition of contract.
 4. Amount to cover third party liabilities.
 5. Amount to cover uncorrected discovered defects in the works.

5.) Retention Money

- a.) Progress payments are subject to retention of ten percent (10%) referred to as the "Retention Money". Such retention shall be based on the total amount due to the Contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of works, as determined by the Client EVSU, are completed.
- b.) If, after fifty percent of the works have been completed and the work is satisfactorily done on schedule, no additional retention shall be made; otherwise, the ten percent (10%) retention shall be imposed. A certificate shall be issued by the Implementing Unit attesting to the satisfactory completion and on schedule of the works.
- c.) The total Retention Money shall be due for release upon final acceptance of the Works.
- d.) The contractor may, however, request the substitution of the retention money for each progress billing with irrevocable standby letters of credit of from a commercial bank, bank guarantees or surety bonds callable on demand, of amount equivalent to the retention money substituted for and acceptable to Client EVSU, provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the ten percent (10%) retention shall be made.



e.) The irrevocable standby letters of credit, bank guarantee and/or surety bonds, to be posted in favor of the Client EVSU shall be valid until Final Acceptance of the Project and will answer for the purpose for which the ten percent (10%) retention is intended, i.e., to cover uncorrected discovered defects and third party liabilities.

6.) Contract Completion

a.) Once the project reaches an accomplishment of ninety-five percent (95%) of the total contract amount, the Client EVSU shall create an Inspectorate Team to make preliminary inspection and submit a punch-list to the Contractor in preparation for the final turnover of the project. Said punch-list will contain, among others, the remaining works, work deficiencies for necessary corrections, and the specific duration/ time to fully complete the project considering the approved remaining contract time. This, however, shall not preclude the Client EVSU's claim for liquidated damages.

7.) Liquidated Damages

a.) Where the Designer/ Contractor refuses or fails to satisfactorily complete the work within the specified contract time, plus any time extension duly granted and is hereby in default under the contract, the Designer/ Contractor shall pay the Client EVSU for liquidated damages, and not by way of penalty, an amount, as provided in the conditions of contract, equal to at least one tenth (1/10) of one percent (1%) of the cost of the unperformed portion of the works for every month of delay.

b.) Such amount shall be deducted from any money due or which may become due to Designer/ Contractor under the contract and/or collect such liquidated damages from the retention money or other securities posted by the Designer/ Contractor, whichever is convenient to the Client EVSU.

c.) In case that the delay in the completion of the work exceeds a time duration equivalent to thirty percent (30%) of the specified contract time plus any time extension duly granted to the Designer/ Contractor, the Client EVSU may rescind the contract, forfeit the Designer's/ Contractor's performance security and takeover the prosecution of the project or award the same to a qualified Designer/ Contractor through negotiated contract.

d.) The total sum of liquidated damages shall not exceed one percent (1%) of the total contract price, in which event the contract shall automatically be taken over by the Client EVSU or award the same to a qualified Designer/ Contractor through negotiation and the



erring Designer's/ Contractor's performance security shall be forfeited. The amount of the forfeited performance security shall be aside from the amount of the liquidated damages that the Designer/ Contractor shall pay the Client EVSU and impose other appropriate sanctions.

8.) Suspension of Work

- a.) The Client EVSU shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary, due to force majeure or any fortuitous events or for failure on the part of the Designer/ Contractor to correct bad conditions which are unsafe for workers or for the general public, to carry out valid orders given by the Client EVSU or to perform any provisions of the contract, or due to adjustment of plans to suit existing field conditions as found necessary during construction. The Designer/ Contractor shall immediately comply with such order to suspend the work wholly or partly.
- b.) The Designer/Contractor or its duly authorized representative shall have the right to suspend work operation on any or all activities along the critical path of activities after fifteen (15) calendar days from date of receipt of written notice from the Designer/ Contractor to the Concerned Operating Unit or equivalent official, as the case may be, due to the following:
- c.) Peace and order conditions make it extremely dangerous, if not possible, to work. However, this condition must be certified in writing by the Philippine National Police station which has responsibility over the affected area and confirmed by the Department of Interior and Local Government (DILG) Regional Director.
- d.) Delay in the payment of Designer's/ Contractor's claim for progress billing beyond forty-five (45) calendar days from the time the Contractor's/ Developers claim has been certified to by the Client EVSU's concerned operation unit that the documents are complete unless there are justifiable reasons thereof which shall be communicated in writing to the Designer/ Contractor.

9.) Extension of Contract Time

The conditions of extension of contract time as stipulated in Annex "E" of the IRR of RA 9184, as amended, shall apply to this contract.

10.) Termination of Contract

The conditions of termination of contract as stipulated in Annex "I" of the IRR of RA 9184, as amended, shall apply to this contract.



11.) Warranty

In accordance with pertinent provisions of the IRR of RA 9184, as amended, the warranty against structural defects and failures shall be fifteen (15) years from final acceptance of the project, except those occasioned by force majeure.

12.) As-Built Plans

The contractor shall cause the preparation and submission of “as-built” plans duly signed and sealed by a professional architect/ civil/ electrical/ mechanical/ auxiliary/ sanitary engineer in the same sheet size and scale as the original drawings.

XVI. PROVISIONS FOR STORAGE AND MATERIAL HANDLING:

1. The Designer/Contractor shall store his materials, equipment and tools in one place of the site. The area shall be coordinated with EVSU. It shall be kept neat and clean at all times. Any damage thereto or to the surrounding area arising from any accident or damage shall be repaired and/or restored to its original condition.
2. Provisions for securing and safekeeping of stored materials, tools and equipment during the construction project shall be for the account of the Designer-Builder.

XVII. CLEARING OF THE SITE:

The Designer/Builder shall clean the whole area by removing debris, discards, and other construction wastes and leave the entire premises free from rubbish caused by their work to the satisfaction of EVSU at no extra cost.

XVIII. CONSTRUCTION SAFETY:

The Designer/Contractor shall refer to the Department of Public Works and Highways (DPWH) Department Orders and DOLE Guidelines for the construction safety on site and should be included in the submission of the Project Execution Plan.

XIX. CONFIDENTIALITY:

All relevant data such as maps, reports, plans, diagrams, designs, statistics, specifications, and other supporting records or materials prepared in the course of the design-and-build shall be the property of EVSU and shall not be used by the Designer/Contractor without the prior written approval. Print and electronic copies of such documents shall be turned-over to EVSU.

In addition, all data and information related to the project shall be treated with strict confidentiality and in no instance shall they be released or revealed to a third party without written consent of EVSU.



XX. ASSIGNMENT AND SUBCONTRACTING:

Except with prior written approval of the Procuring Entity, the Designer/Contractor shall not assign nor sub-contract any part of the design-build scheme.

XXI. INDEPENDENT CONTRACTOR:

Nothing contained herein shall be construed as establishing or creating an employer-employee or principal-agent relationship, it being understood that the position of EVSU and Contractor is that of an independent contractor.

XXII. INDEMNIFICATION:

The Designer/Contractor shall hold EVSU free and harmless from all claims, liabilities, suits and actions, demands, or damages arising from death, loss, or injuries to persons, entities, or properties, in relation to the delivery of design-and-build scheme

In addition, the Contractor Designer agrees to protect and defend, at its own expense, EVSU against claims and liabilities arising from acts or omissions committed by the Contractor or its staff in the performance of the services including the use of copyrighted materials, patented inventions, articles or appliances, and indemnify EVSU for any damages or liabilities that EVSU may be compelled to assume arising from said acts or omissions.

XXIII. CHANGES:

EVSU may at any time, by written notice to Designer/Contractor, issue additional instructions, changes, or alterations to the work with no additional cost unless it is mutually agreed upon and in conformance with RA 9184 and its RIRR.

XXIV. WARRANTIES OF THE DESIGNER/CONTRACTOR:

- 1) The Designer/Contractor warrants that it shall conform strictly with the terms and conditions of the Terms of Reference.
- 2) The Designer/Contractor warrants, represents and undertakes reliability of the service and that their manpower complement is hardworking, qualified, reliable and dedicated to do the service required to the satisfaction of EVSU. It shall employ highly skilled, well-behaved and honest employees with proper identification cards displayed conspicuously while working within the compound. It shall not obtain the services of any personnel of EVSU to work in any category.
- 3) The Designer/Contractor shall comply with the laws governing employee's compensation, PhilHealth, Social Security, labor standards and other laws, rules and regulations applicable to its personnel employed on account of the



contracted services.

- 4) The Designer/Contractor, 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 regulatory authorities and commissions;
- 5) The Designer/Contractor, shall coordinate with authorized and/or designated personnel of EVSU in the performance of their services;
- 6) The Designer/Contractor shall be liable for loss, damage, or injury as may be due directly through the fault or negligence of its personnel. It shall assume responsibility, and EVSU shall be specifically released from any responsibility arising therein;
- 7) The Designer/Contractor shall comply with all the documentation to be required by the Commission on Audit (COA) even after completion of the Project at no additional cost to EVSU;
- 8) The Designer/Contractor shall neither assign, transfer, pledge, nor subcontract any part of or interest in the design-build contract; and
- 9) The Designer/Contractor who drew up the plans and specifications for a building shall be held liable for damages within fifteen (15) years for the design of the fit-out works they designed from the completion of the structure; the same should collapse by reason of a defect in those plans and specifications, or due to the defects in the ground.

XXV. PROJECT ACCEPTANCE AND TURNOVER:

- 1) EVSU shall coordinate with concerned entities to ensure that the Contractor and its completed work is:
 - 1.1 In accordance with the Construction Contract documents (plans and specifications) approved by EVSU.
 - 1.2 Able to perform as expected and that the building was properly constructed to allow successful testing, commissioning, and certification.
- 2) Should EVSU and concerned entities notice minor defects after completing the punch list, new items may be added to the list which the Contractor shall correct prior to final acceptance without cost to EVSU.
- 3) EVSU shall release the retention money upon Final Acceptance of the project.

The Warranty Security shall be returned after the completion of the construction of the “Increase in the Carrying Capacity of Nursing and Allied Program” Building at EVSU Main Campus one (1) year after the issuance of the Certificate of Final



acceptance.

XXVI. CONFLICT OF INTEREST:

The Designer/Contractor shall provide professional, objective, and impartial advice and at all times hold EVSU's interest paramount, without any consideration for future work, and strictly avoid situations where a conflict of interest shall arise with their other projects or their own interests. Designer/Builder shall not be hired for any project that would be in conflict with their prior or current obligations to other entities, or that may place them in a position of not being able to carry out the Project in the best interest of EVSU.

Should a conflict of interest situation arise in the course of the implementation of this Design-Build scheme, not attributable to any act of the Designer/Contractor, the Contractor must disclose the nature and extent of the conflict within ten (10) days from notice.

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ANNEX - A

Architectural Design/Works Checklist of Requirements/References

Architectural Design/Works shall conform to the following standards:

1. National Building Code of the Philippines (PD 1096) and its latest amended IRR;
2. The Architectural Act of 2004 (RA 9266) and its latest amended IRR;
3. Accessibility Law (BP 344) and its latest amended IRR;
4. Fire Code of the Philippines (RA 9514) and its latest amended IRR;
5. National Structural Code of the Philippines (NSCP) 2010;
6. National Plumbing Code of the Philippines (NPCP);
7. Sanitation Code of the Philippines;
8. Mechanical Engineering Code of the Philippines;
9. Philippine Electrical Code;
10. National Electric Code;
11. Existing Local Codes and Ordinances;
12. City Green Building Ordinance;
13. Bureau of Product Standards;
14. Energy Efficiency and Conservation Act (RA11285);
15. The Philippine Green Building Code (RA 11393)



ANNEX - B

Structural Design/Works Checklist of Requirements/References

Structural Design/Works shall conform to the following standards:

1. National Building Code of the Philippines (PD 1096) and its latest amended IRR;
2. National Structural Code of the Philippines (NSCP) 2010;
3. Accessibility Law (BP 344) and its latest amended IRR;
4. Existing Local Codes and Ordinances;
5. City Green Building Ordinance;

Standards:

1. Bureau of Product Standards (BPS);
2. Philippine National Standards (PNS)
3. Underwriters Laboratory (UL);
4. DPWH Blue Book;
5. American Concrete Institute (ACI);
6. American Society for Testing Materials (ASTM);



ANNEX - C

Sanitary/Plumbing Design/Works Checklist of Requirements/References

Sanitary/Plumbing Design/Works shall conform to the following standards:

Codes:

1. National Building Code of the Philippines (PD 1096) and its latest amended IRR;
2. Fire Code of the Philippines (RA 9514) and its latest amended IRR;
3. National Plumbing Code of the Philippines (NPCP);
4. Sanitation Code of the Philippines;
5. Existing Local Codes and Ordinances;
6. The Philippine Green Building Code (RA 11393)

Standards:

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



ANNEX - D

Mechanical Design/Works Checklist of Requirements/References

Mechanical Design/Works shall conform to the following standards:

Codes:

1. National Building Code of the Philippines (PD 1096) and its latest amended IRR;
2. Fire Code of the Philippines (RA 9514) and its latest amended IRR;
3. Mechanical Engineering Code of the Philippines (ME Code);
4. Existing Local Codes and Ordinances;
5. Energy Efficiency and Conservation Act (RA11285);
6. The Philippine Green Building Code (RA 11393)

Standards:

1. Bureau of Product Standards (BPS);
2. Philippine National Standards for Drinking Water;
3. Underwriters Laboratory (UL) and Factory Manual (FM);
4. International Electro-Technical Commission (IEC) 1998;



ANNEX - E

Electrical and Electrical Auxiliaries Design/Works Checklist of Requirements/References

Electrical and Electrical Auxiliaries design/works shall conform to the following standards:

Codes:

1. National Building Code of the Philippines (PD 1096) and its latest amended IRR;
2. Fire Code of the Philippines (RA 9514) and its latest amended IRR;
3. Philippine Electrical Code;
4. Existing Local Codes and Ordinances;
5. Energy Efficiency and Conservation Act (RA11285);
6. The Philippine Green Building Code (RA 11393)

Standards:

1. Bureau of Product Standards (BPS);
2. Underwriters Laboratory (UL);
3. International Electro-Technical Commission (IEC) 1998;
4. Illumination Engineering Society (IES);
5. National Electrical Manufacturers Association (NEMA)



ANNEX - F

Fire Protection Design/Works Checklist of Requirements/References

Fire Protection design/works shall conform to the following standards:

Codes:

1. National Building Code of the Philippines (PD 1096) and its latest amended IRR;
2. Fire Code of the Philippines (RA 9514) and its latest amended IRR;
3. Mechanical Engineering Code of the Philippines (ME Code);
4. National Plumbing Code of the Philippines (NPCP);
5. Existing Local Codes and Ordinances;



ANNEX - G Permits and Clearances

1. BUILDING PERMIT

A. Locational Clearance Requirements (1 Copy per Document)

1. Locational Clearance Application Form duly accomplished and notarized.
2. Certified True Copy of Transfer Certificate Title (Blue Copy from Register of Deeds).
3. Certified True Copy of Tax Declaration of the property from the City Assessor's Office.
4. Tax Clearance (Current Year) from the City Treasurer's Office.
5. Barangay Clearance giving consent to the construction of the Building.
6. Project Cost (including Bill of Materials and Machineries/Capitalization).
7. Sketch of Subdivision Plan (whichever is applicable).
8. First Page of Plans (Site Development and Vicinity Map).
9. Long File Folder with Fastener.
10. Long Brown Envelope.

ADDITIONAL REQUIREMENTS (AS MAY BE APPLICABLE)

11. Plumbing and Drainage Plan for two (2) or multi-storey buildings.
12. Certificate of Non-Coverage (CNC) from EMB-DENR for commercial buildings and residential buildings with 2-Storey with Roof Deck or Multi-Storey Building.
13. Environmental Compliance Certificate (ECC) for projects such as gasoline stations, warehouses, hotels, etc.
14. In case the property is not registered in the name of the applicant, submit a duly notarized Deed of Sale or Deed of Donation or Contract of Lease or Authorization allowing the use of the property whichever is applicable.
15. Special Power of Attorney (SPA) for non-owner or representative.
16. Other requirements deemed necessary for the approval of the application.

ZONING CERTIFICATION (1 Copy per Document)

1. Duly accomplished and notarized Application Form.
2. Vicinity Map indicating clearly and specifically the exact location of the proposed site and the existing land uses and/or landmarks with a radius of at least 500 meters duly signed by a Licensed Geodetic/Civil Engineer or Architect.
3. Lot/Sketch Plan (for new structures, lot plans should be signed and sealed by a Geodetic Engineer).
4. Photocopy of Title or any proof of ownership, or right over the property



and or Latest Tax Declaration.

5. Fencing Plan (for Fencing Permit).
6. Photocopy of Deed of Sale or any applicable instrument of transfer (ROD).
7. Long File Folder with fastener.
8. Long Brown Envelope.

B. Fire Safety Evaluation Clearance Requirements

1. Fire Safety Evaluation Clearance Application Form
2. Fire Protection Plans, if applicable (refer to the Fire Code of the Philippines)
3. Cost Estimate/Bill of Materials (signed and sealed)

C. Building Permit Requirements

Technical Documents: Application forms must be duly accomplished, signed and sealed by the professionals & signed by the owner/s)

1. Building Permit Application duly filled-up and notarized Form (7 copies)
2. Sanitary/Plumbing Permit Form (5 copies)
3. Electrical Permit Form (5 copies)
4. Mechanical Permit Form (5 copies)
5. Electronic Permit (5 copies)
6. Materials Specifications (3 copies)
7. Bill of Materials, Scope of Works & Cost Estimates (4 copies)
8. Construction Log Book (2 pcs)
9. Long Folder with Fastener (2 pcs)
10. Long Expanding Envelope (1 pc)
11. Prescribed Tarpaulin Construction Project Signage
12. Photocopies of each professional's valid Professional Regulation Commission (PRC) ID and current Professional Tax Receipts with seal; and 3 specimen signatures of each professional
13. Additional Requirements
 - 13.1 Barangay Clearance for Building Permit (3 copies)
 - 13.2 Barangay Drainage Certificate (3 copies)
 - 13.3 Locational Clearance from City Planning (3 copies)
 - 13.4 Latest Tax Declaration 93 copies)
 - 13.5 Latest Tax Clearance (3 copies)
 - 13.6 Certified True Copy of Title of Property by Register of Deeds (3 copies)
 - 13.7 Sketch Plan of Lot duly certified by Geodetic Engineer (3 copies)
 - 13.8 Approved Subdivision Plan from D.E.N.R. (3 copies)

D. Building Plans at Minimum Scale 1:100m

Plans must be duly accomplished, signed and sealed by the professionals &



signed by the owner/s) in Standard A1 Blueprint.

1. **Architectural Plans** (signed and sealed by Architect with IAPOA ID (6sets)
2. **Structural Plans** (with PRC ID & PTR of the Structural Engineer/Civil Engineer who signed the plans) (6sets)
3. **Structural Design Analysis (for 2-Storey and above)** (signed and sealed by Structural Engineer/Civil Engineer) - **ATTACH SOIL BORING TEST FOR 3 STOREY AND ABOVE BUILDING** (6sets)
2. **Sanitary/Plumbing Plans** (signed and sealed by Sanitary Engineer/Master Plumber Engineer) (6sets)
3. **Electrical Plans** (signed and sealed by Professional Electrical Engineer) - **ATTACH ELECTRICAL DESIGN ANALYSIS** (6sets)
4. **Mechanical Plans** (signed and sealed by Professional Mechanical Engineer) (6sets)
5. **Electronics Plan** for CCTV & Fire Detection and Alarm System (signed and sealed by Electronics Engineer) (6sets)

2. GREEN BUILDING PERMIT

A. Preliminary Certificate

- a. Mandatory Requirements
 1. Construction Activity Control Pollution Prevention System
 2. Energy Efficiency Plan
 3. Water Use Reduction System with Water Efficient Fixtures
 4. Waste Management Plan
 5. Designated Smoking Area in the building layout
 6. Sewage Treatment Plant
- b. Elective Requirements
 - Land/Site Sustainability
 - i. Construction Plan with flood mitigation study
 - ii. Construction plan providing access of the public (for mixed use neighborhood)
 - iii. Construction plan providing access to establishments or services (for community connectivity)
 - iv. Parking lots with bicycles and attendant storage cabinets (for transportation involving bike racks on parking lots)
 - v. Parking Plan and layout prescribed by NBC (for transportation involving provision of adequate parking capacity)
 - vi. Construction Plan and layout showing landscape in open spaces
 - vii. Construction Plan with light-colored paving or open grid
 - viii. Construction Plan with Green Roof for plants and trees
 - ix. Construction Plan with Storm Water Management
 - Energy Efficiency (RA 1152)
 - i. Building Envelope Design



- ii. Electrical Plan and calculations adopting highest Energy Efficient Ratio (EER)
 - iii. Architectural Plan with natural ventilation
 - iv. Electrical Plan with electric consumption reduction
Renewable Energy
 - v. Construction Plan with Renewable Energy System
Water Efficiency
 - vi. Construction Plan with water use reduction
 - vii. Construction Plan with water use reduction involving grey water or rainwater
- Materials and Resources
 - i. Construction Plan for construction waste management
 - ii. Architectural and Structural Plan showing layout, elevation and sectional views
 - iii. Use of rapidly renewable materials from plant
 - iv. Construction Plan of water diversion/reduction
 - v. Construction Plan of refuse disposal equipment
 - Indoor Environment
 - i. Construction Plan with indoor air quality performance
 - ii. Construction Plan with low-emitting materials involving Volatile Organic Compound
 - iii. Construction Plan with refrigerant management involving low Ozone Depleting Potential (ODP) or Global Warming Potential (GWP)
 - iv. Refrigerant Management with use of equipment long service life
 - Green Points for Management
 - i. Professionals are BERDE accredited

B. Final Certificate

- a. Application for Final Certification for Green Building (must be applied within the time of construction period)

3. DENR CERTIFICATE OF NON-COVERAGE

Documents required:

- 1) Project Plan with Project Description, Project Layout, and Vicinity Map;
- 2) Statement of Accountability by Project Proponent on DENR Template;
- 3) Photo Documentation of the Project Site; and
- 4) Photo Documentation of the Environmental Impact Area.



ANNEX - H

Electronics Design/Works Checklist of Requirements/References

Electronics design/works shall conform to the following standards:

Codes / law:

1. National Building Code of the Philippines (PD 1096) and its latest amended IRR;
2. Fire Code of the Philippines (RA 9514) and its latest amended IRR;
3. Philippine Electronic Code;
4. Existing Local Codes and Ordinances;
5. RA 9292 (Electronics Engineering law);
6. Energy Efficiency and Conservation Act (RA11285);
7. The Philippine Green Building Code (RA 11393)

Standards:

1. American National Standards Institute / Telecommunications Industry Association ANSI/TIA-568.2-D
2. ISO/IEC 11801-1 Ed 1.0
3. Copper certification
4. Fiber certification