



**PROJECT NAME:** REFURBISHMENT OF CHEMISTRY LECTURE ROOM AT MAIN CAMPUS  
**LOCATION:** BATAAN PENINSULA STATE UNIVERSITY, MAIN CAMPUS

### SECTION 1: THE PROJECT

#### I. PROJECT DESCRIPTION:

<b>PROJECT NAME:</b>	REFURBISHMENT OF CHEMISTRY LECTURE ROOM AT MAIN CAMPUS
<b>LOCATION:</b>	BATAAN PENINSULA STATE UNIVERSITY, MAIN CAMPUS
<b>APPROVED BUDGET FOR CONTRACT (ABC):</b>	Php 1,496,615.84
<b>PROJECT DURATION:</b>	120 Calendar Days

#### SCOPE OF WORK:

REFURBISHMENT OF CHEMISTRY LECTURE ROOM AT MAIN CAMPUS with the following breakdown:

##### 1. GENERAL REQUIREMENTS

- Mobilization and Demobilization
- Temporary Facility
- Temporary power and Water supply

##### 2. ARCHITECTURAL WORKS

A. MASONRY WORKS (25 sq.m)

B. CEILING WORKS (137.00 sq.m)

##### C. PAINTING WORKS

- Interior Walls
  - Toilet & Entrance
  - Office, Co-working Space & Hallway
  - Pantry, Hallway, Stair wall
  - Sinag & Sikat Wall Paint Design

##### • CEILING PAINT

##### • Facade Refreshment (Repainting)

##### • Facade Refreshment (Decorative Wall Tiles)

##### D. TILING WORKS

##### • Co-Working Space, Pantry and Office

##### • Toilet & Pantry

##### E. DOORS AND WINDOWS

##### • Office, Toilet & Pantry

##### F. ROOFING WORKS

##### • 24" Pre-painted Gutter ga. 24 (Front only)

##### G. OTHERS WORKS

##### • Landscape Plant Box Outdoor

##### • Repair of Park Path walk

##### • Rubber Tree 3FT (Indoor Plant)

##### • Indoor Wall Cladding

##### • Signages (SIKAT & SINAG) (ACRYLIC)

##### • Platform

##### • Booth seat

##### • Cabinet





### 3. ELECTRICAL WORKS

1. Cable laying and conduit laying
2. Installation of panels and breaker.
3. Installation of lighting fixtures and power fixtures
4. Termination
5. Testing and commissioning
  - a. Metering included
  - b. Signed and sealed with latest PRC and PTR and Curriculum Vitae of Professional Electrical Engineer (PEE)

### 4. FIRE DETECTION AND ALARM SYSTEM

- a. Supply and Installation of (FDAS),
- b. Signed and sealed with latest PRC and PTR and Curriculum Vitae of Professional Mechanical Engineer (PME) or Professional Electronics and Communication Engineer (PECE)
- c. Testing and Commissioning

### 5. PLUMBING WORKS

- a. Supply and Installation of Water lines
- b. Supply and Installation of Sewer Line
- c. Storm Drainage Line
- d. Supply and Installation of plumbing fixtures
- e. Supply and Installation of plumbing fittings
- f. Signed and sealed with latest PRC and PTR and Curriculum Vitae of Master Plumber

#### *Vision*

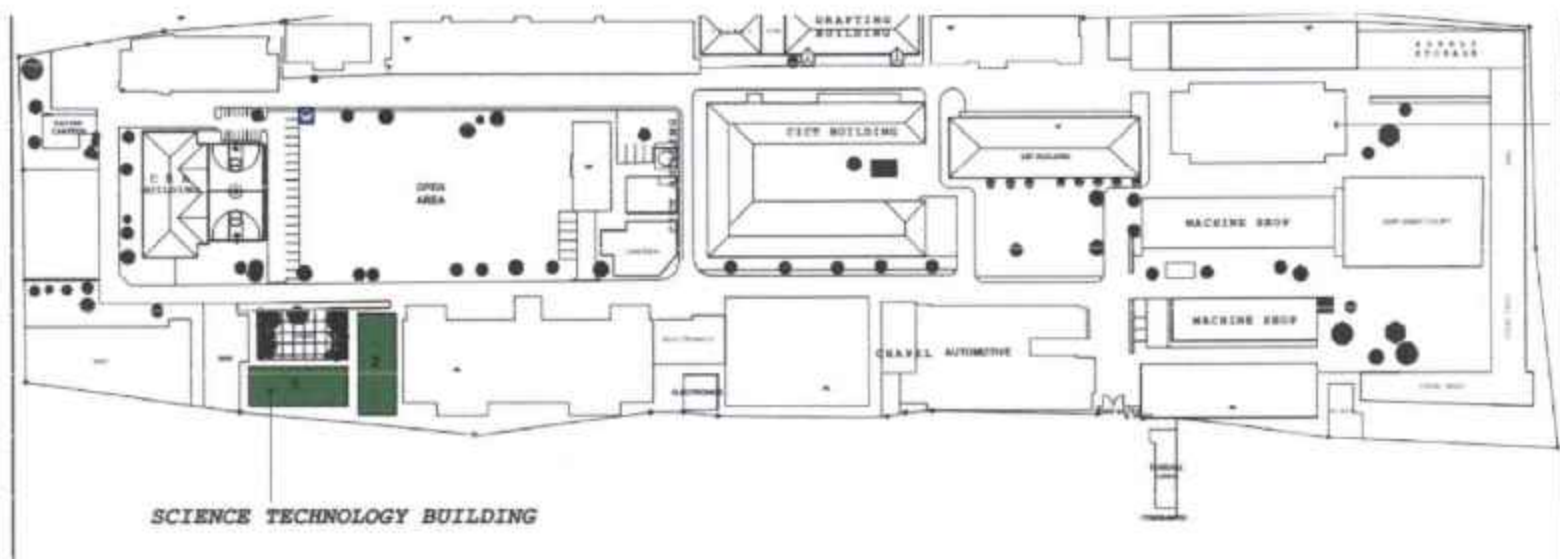
An inclusive and sustainable University recognized for its global academic excellence by 2030.

#### *Mission*

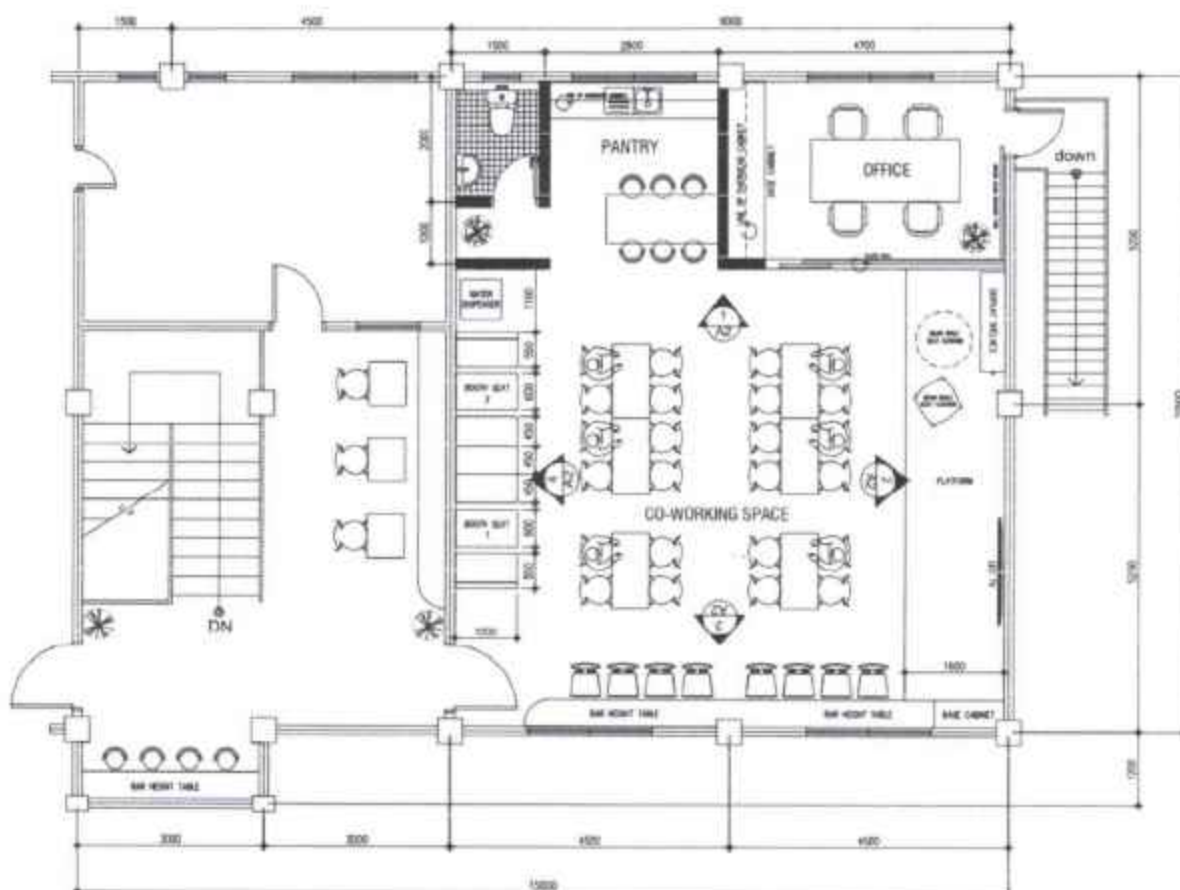
To develop innovative leaders and empowered communities by delivering transformative instruction, research, extension and production through Change Drivers and responsive policies.



### SITE LOCATION:



### PROPOSED FLOOR PLANS AND INTERIOR



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Note: Retain the Existing Flooring Tiles

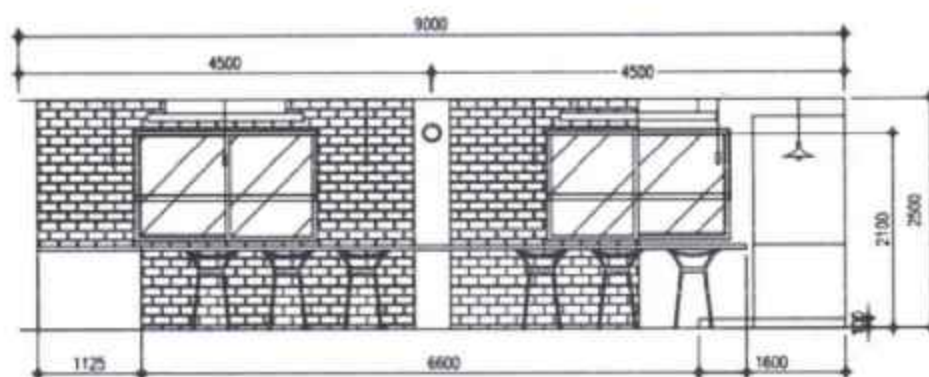


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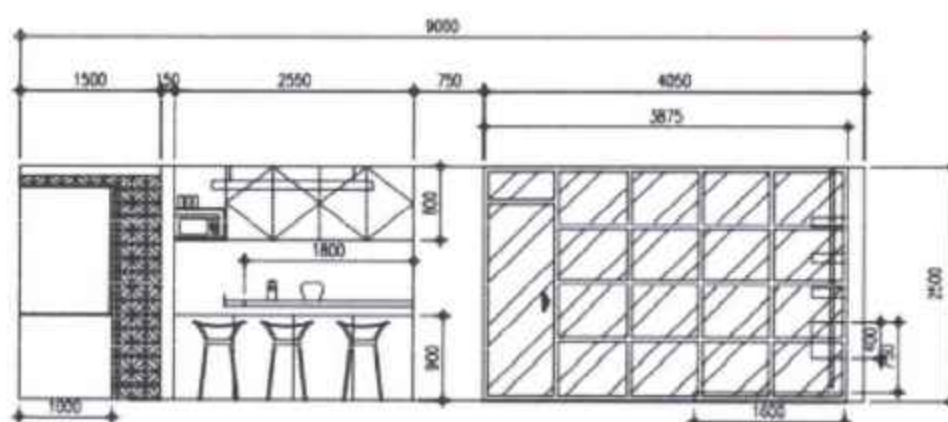
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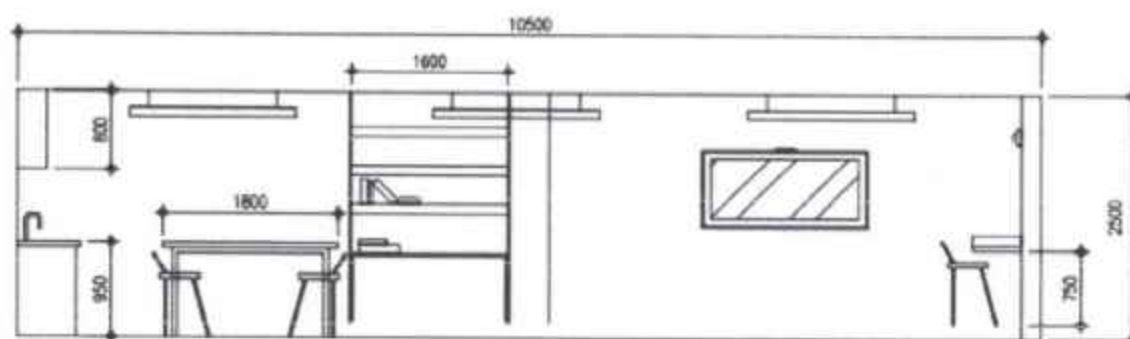


1  
A 2 SECTION A  
1:40 MTS.

Note: Painted Concrete Wall Brick Pattern



2  
A 2 SECTION B  
1:40 MTS.



3  
A 2 SECTION C  
1:40 MTS.

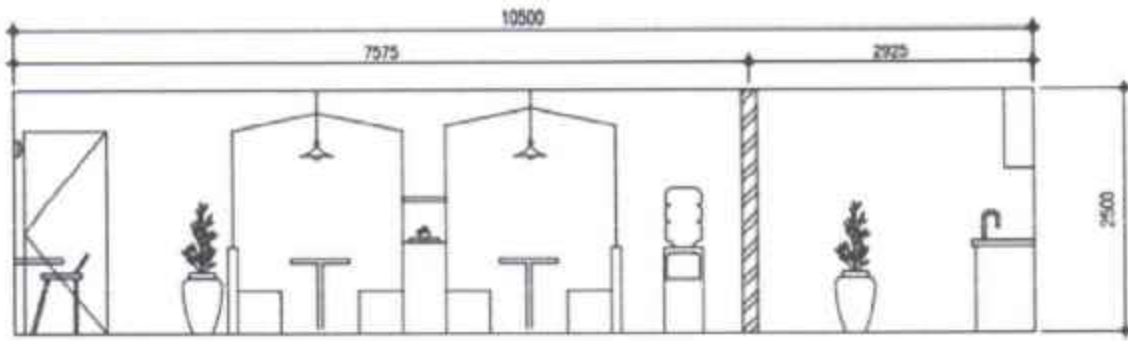
Note: Platform Elevation at 0.15 meters

### Vision

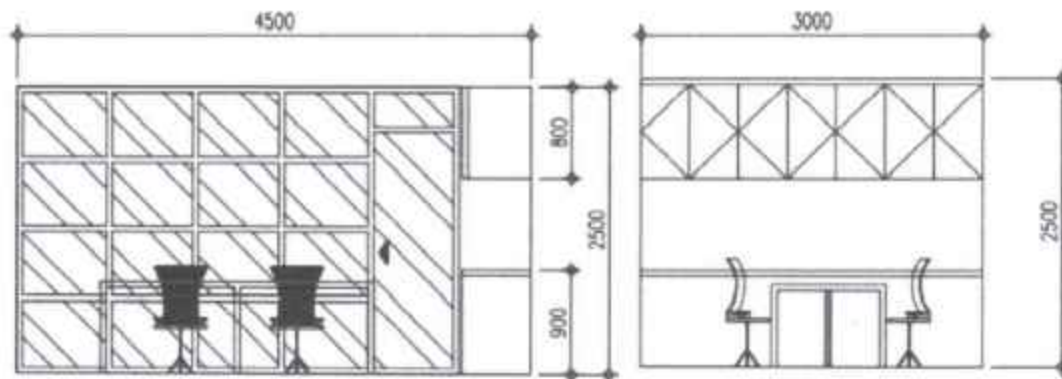
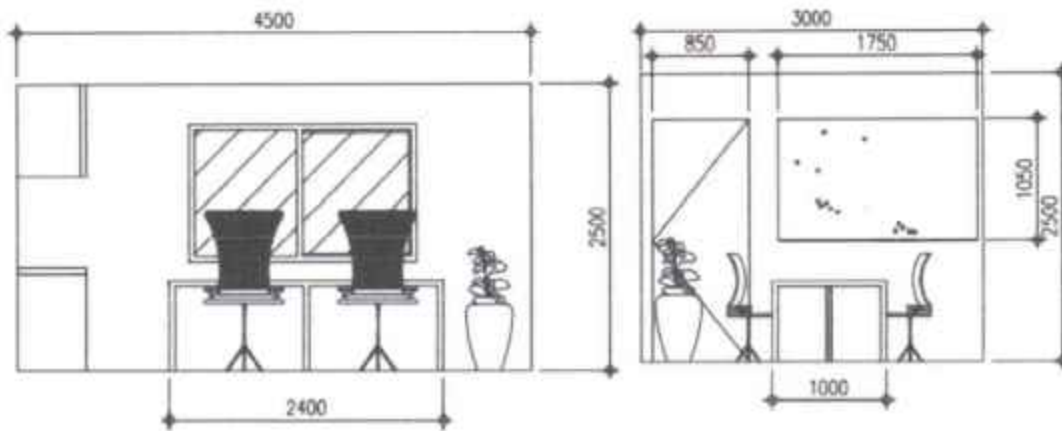
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4 SECTION D  
A 2  
1:40 MFL



SECTION PLAN  
1:100 MFL

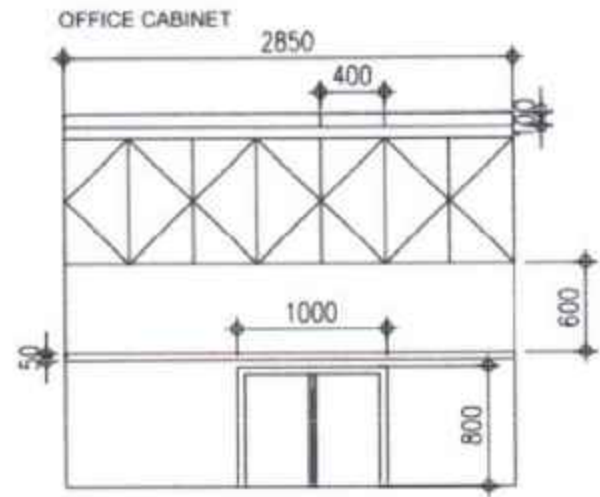
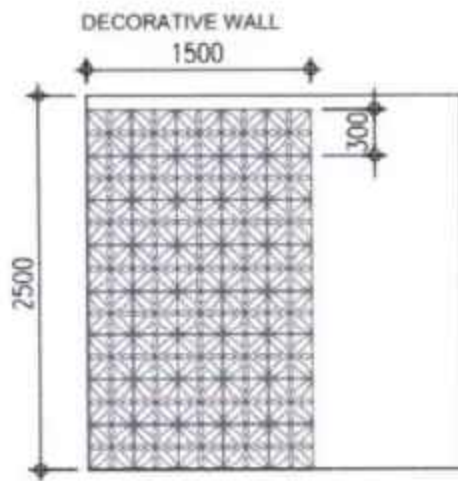
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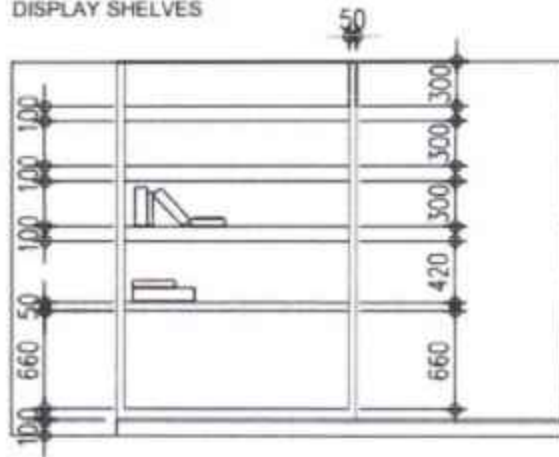
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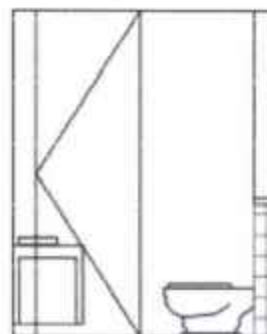
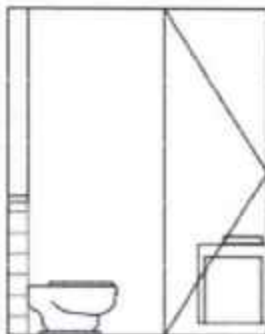
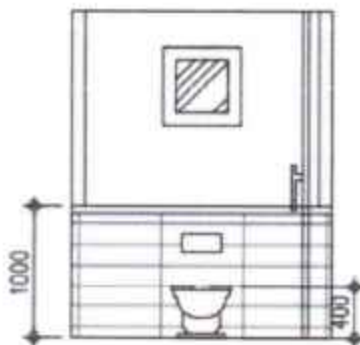
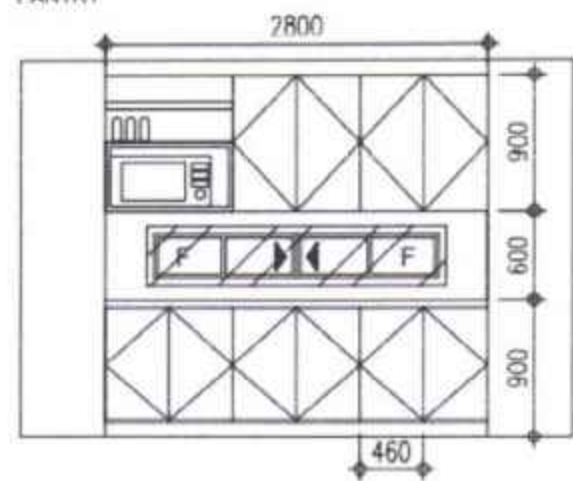




DISPLAY SHELVES



PANTRY



BLOW UP PLAN  
1:30 MTS.

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### INTERIOR PERSPECTIVES



Note: Platform Elevation at 0.15 meters and Painted Concrete Wall Brick Pattern

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Note: Platform Elevation at 0.15 meters



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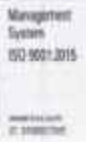
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Note: Retain the Existing Flooring Tiles

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### SEE PLANS:

ELECTRICAL LAYOUT

REFLECTED CEILING PLAN

SMOKE DETECTOR LAYOUT PLAN

WALL FINISHES LAYOUT

TILES LAYOUT

PLUMBING / SANITARY LAYOUT

ACU LAYOUT

### II.OBJECTIVES:

To provide a background information regarding the proposed project which should be handled in the shortest possible time, at an acceptable quality and performance to the contractor.

1. To outline the "Scope of work" that must be performed under the terms of its contract.
2. To establish a gender-neutral facilities

- END OF SECTION -

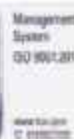
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### SECTION 2: THE PROCUREMENT AND IMPLEMENTATION OF CONTRACTS FOR INFRASTRUCTURE PROJECTS

The guidelines for the procurement and implementation of contracts for infrastructure projects shall be govern by the Annex "G" of the 2016 Revised Implementing Rules and Regulations of RA 9184 otherwise known as the "Government Procurement Reform Act"

-END OF SECTION -

### SECTION 2: TECHNICAL SPECIFICATIONS

#### DIVISION 01: GENERAL REQUIREMENTS

1. The work covered under this Contract consists of the furnishing all materials, labor, equipment, transportation, incidentals, facilities, and superintendence necessary to complete the project.
2. The Contractor is expected and **required** to attend the important phases of the bidding process of the said project. All concerns and questions shall be discussed on the Pre-Bid Phase.
3. The Contractor shall be responsible for carefully examining, comparing, and verifying the data furnished by the Plans and specifications, the Contractor shall submit the matter to the Architect or his authorized representative for the proper explanation or necessary correction before any adjustment shall be made. Any adjustment by the Contractor without such determination shall be at his risk and expense.
4. Omitted or wrongly described details of work, which are manifestly necessary to carry out the true intent of the drawings and specifications, shall be performed as if fully and correctly set forth and described in the drawings and specifications.
5. The procuring entity may, from time to time, make changes in the specifications and construction drawings. However, if the cost to the Contractor shall be materially increased by such change, the Procuring Entity shall pay the Contractor for the reasonable cost in accordance with the changes.
6. The contractor shall comply with the laws, City or Municipal Ordinances and all government specifications and regulations in so far as they are binding upon or affecting the portion the work hereto. The Contractor or those engaged thereon shall obtain all necessary licenses and permits and pay all taxes or fees, which may be due to the local and/or National Government in connection with the prosecution of the work. He shall also be responsible for all damages to persons or property that may occur.
7. Unless otherwise specified, all materials shall be new and free from defects and imperfection. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall be performed in the best and acceptable manner in strict accordance with the requirements of the Plans and Specifications. Preference will be given to articles or materials that are locally manufactured, conditions of quality and price being equal.
8. When called for by the Architect, the Contractor shall furnish, for approval, full information, and satisfactory evidence as to the kind and quality of materials or articles he will incorporate in the work. The contractor shall furnish, for Architect's approval, all samples when so directed.
9. The work shall be in accordance with approved samples. Materials and articles installed or used without such approval shall be at the risk of subsequent rejection. Any failure on the





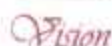
- part of the Contractor to conform use materials that are not specified herein shall be under subsequent rejection unless subject for approval.
10. Any alteration or revision of material usage without approval from the Architect shall make the Contractor responsible and liable in terms of guarantee, workmanship, and defects.
  11. Workmanship shall be in accordance with the best standard practices and all operations required under all parts of the Specification shall be undertaken in a neat, workman-like manner. Only skilled personnel with sufficient experience in similar operations shall be allowed to undertake the same.
  12. Any alteration or revision on the execution of drawings without approval from the Architect shall be under subsequent rejection and shall make the Contractor responsible and liable for any workmanship and execution defects.
  13. Defective workmanship shall be remedied by the Contractor, at his expense. He shall not be entitled to any payment hereunder until defective workmanship has been remedied.
  14. The Contractor shall provide and maintain adequate weather-tight facilities with water, light, and toilet facilities. He shall keep such places clean and free from flies. He shall remove all connections and appliances connected there with prior to the completion of the Contract and leave the premises perfectly clean.
  15. The Contractor shall furnish all temporary water, lights and power and shall pay all expenses in connection therewith. Furthermore, the Contractor shall provide and pay for all water expenses for building purposes that are required by all trades.
  16. The Contractor shall put up safety measures and continuously maintain adequate protection of all his work from damage and shall protect the Procuring Entity's property, as well as all materials furnished and delivered to him by the Entity. He shall make good any such damage, injury, or loss, except such as may be caused by agents or employees of the Procuring Entity, or due to causes considered as an Act of God.
  17. The Contractor shall enclose the site he possessed by a security fence with gate. See-through security fence shall not be allowed.
  18. With respect to the construction of the buildings and other structures, the design and specifications shall conform to the standards set by:
    - a. Department of Public Works and Highways (DPWH)
    - b. National Building Code of the Philippines (NBCP) National Structural Code of the Philippines, 2010
    - c. Sanitary Code of the Philippines

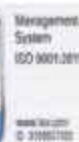
### DIVISION 02: SITE CONSTRUCTION

#### SEC. 02100 SITE PREPARATION:

##### SCOPE

Furnish equipment and perform labor required to complete demolition of the existing structures, removal of salvaged materials, and disposal of resulting trash, waste, and other vegetation. See drawings for area coverage of work involved.





### EXAMINATION OF SITE

Visit the site of the work and examine the premises to fully understand all existing conditions relative to the work. No increase in cost or extension of performance time will be considered from failure to verify and know actual site conditions.

### PERMITS

Secure and pay for all necessary permits needed for the work.

### PROTECTION

Protect adjacent properties, persons, shrubs, trees, lawns, structures, and utilities against harm or damage.

### DISPOSAL OF MATERIALS

1. All salvageable material shall remain the property of the Owner. Hauling and stacking of salvaged materials within a 300-meter radius to Owner's specified storage shall be in the account of the Contractor.
2. All debris and other materials resulting from the demolition work shall be immediately removed from the premises and dumped at sites provided by the Contractor in a manner approved by the Architect.

### DEMOLITION

1. Demolish and remove from site existing structures and other obstructions within the building and as indicated in the plans.
2. Where existing concrete on ground is to be demolished, remove all existing concrete and other obstructions to a depth of 300 mm below grade.
3. Cap all existing utility lines. Consult Owner before commencing work.

### REPAIRS

Repair damage done to property of any person or persons on or of the premises, by reason of the required work for Demolition.

### DIVISION 03- MASONRY

#### I.DELIVERY, HANDLING, STORAGE AND PROTECTION

##### A. MASONRY UNITS

Immediately upon delivery to site, concrete masonry units shall be stocked on platforms or stored in such manner as to protect them from contact with soil or weather. Care in handling masonry units shall be exercised to avoid chipping and breakage. Storage piles, stacks or bins shall be protected from unnecessary traffic construction operations or any kind of damage.

##### B. LIME AND CEMENT MATERIALS

Cement and lime shall be stored off the ground under weather-tight cover and away from sweating walls and other damp surfaces until ready for use. Damage or deteriorated materials shall be removed from the premises.

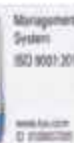
### DIVISION 04- WOOD WORKS

#### 1.0 General Requirements

##### 1.1 Quality of Lumber

Lumber shall be of best grade available of the respective kinds, required for various parts of work, well-seasoned, thoroughly dry and free from loose or unsound knots, cup shakes or other imperfections impairing its strength, durability or appearance. Exposed surfaces shall be smooth unless otherwise indicated or specified.



**1.2 Substitution of Lumber**

Lumber equally good for the purpose intended may be substituted for the kind specified upon written approval of the Engineer/Architect. However, a reduction of Contract Price equal to difference in cost of the two kinds of lumber shall be made. Manila market prices shall be the basis of sale reduction in price. Substitution made without prior approval of the Engineer/Architect shall be at Contract risk.

**1.3 Protection and Storage**

Lumber shall be protected from dampness during and after delivery at the site. Lumber shall be delivered to the site at least 30 days before use, immediately piled in stack in such manner as to provide air circulation around surfaces of each piece to ensure thorough air seasoning; stacks shall cover with well-ventilated sheds and enough protection from driving rain.

**DIVISION 05: PAINTING WORK:****1. For Interior and Exterior Masonry Wall:**

- a. Use Concrete Neutralizer
- b. First Coat: Flat Latex, 10% Acrylic, water-based Masonry Putty
- c. Second and Final coat: Semi-gloss Latex Paint

Paint colors: Subject for Architect's Approval for wall paint color and base board paint color

**2. For Fiber Cement board:**

- a. First Coat: Flat Latex, 10% Acrylic, water-based Putty
- b. Second and Final coat: Semi-gloss Latex Paint

Paint colors: Subject for Architect's Approval

**3. For Metal Surface and wood surface:**

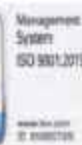
- a. Use Epoxy Primer Gray, finish with two (2) coats Quick Drying Enamel (QDE) Paint colors: Subject for Architect's Approval

Note: All exposed finish hard wares, plumbing fixtures and accessories, lighting fixtures and accessories, glasses and the like shall be adequately protected that these are not stained with paint and other painting materials prior to painting works. All other surfaces which would be endangered by stains and paint marks should be taped and covered with draft paper or equal. Protect the work and adjacent work and materials at all times by a suitable covering or by other methods. Upon completion of the work, remove paint and varnish spots from floors, glass and finish hardware.

**MATERIALS**

- **Interior Paint (85 sq.m wall)**
- **Stucco Finish (Toilet & Entrance)**
  - Putty
  - Textured Paint
  - Top Coat
- **Jolly Orange Color (Office, Co-working Space & Hallway)**
  - Primer Flat Latex
  - Putty
  - Top Coat
- **Lime Wash Color (Co-working Space)**
  - Primer Flat Latex
  - Putty
  - Top Coat





- **Beige/Cream White (Office, Pantry, Hallway, Stair walls)**
  - Primer Flat Latex
  - Putty
  - Top Coat
- **Breeze (Sinag Wall Paint Design)**
  - Breeze Paint
- **Lime Green (Sinag Wall Paint Design)**
  - Lime Green Paint
- **CEILING PAINT (137.00 sq. m)**
  - Primer Flat Latex
  - Putty
  - Top Coat
  - Scaffoldings
- **Facade Refreshment (Repainting)**
  - Top Coat (white)
  - Top Coat (chocolate brown)
- **Facade Refreshment (Decorative Wall Tiles)**
  - 0.30m x 0.60m ceramic wall tiles
  - Scaffoldings
- **Repair of Park Path walk**

### DIVISION 06-- DOORS & WINDOWS

#### 1.0 SCOPE OF WORK

Furnish materials and equipment and perform labor required to complete:

1. Supply and Installation of Doors with lockset, hinges and door knob
2. Supply and Installation of Windows See drawings and schedules for sizes, details and location of required work.

### DIVISION 07-- FINISHES

This Division applies to all specifications of the Finishes for the Proposed Project.

#### SEC. 07100 FLOORING

Furnish materials and equipment and perform labor required to complete all types of tile work and stone works.

See drawings and details for location and extent of work required.

1. 30 cm x 30 cm Non-skid Ceramic Tiles for Toilet flooring
  - Color: GRAY and / or submit for Architect's Approval
2. 60 cm x 60 cm Ceramic Tiles
  - Color: GRAY and / or submit for Architect's Approval
3. 10mm Carpet Underlay for Platform
  - Color: Brown and / or submit for Architect's Approval

#### SEC. 07200 CEILING

Furnish materials and equipment and perform labor required to complete all types of ceiling works.

- a. Use 4" x 8" Fiber Cement board 4.5 mm thick





- b. Use 12mm x 38mm Carrying Channel ga. #26, 5.0m length spaced at 1.20m o.c.
- c. Use 25mm x 25mm Wall Angle, 2.40 m or 3.0m length at wall perimeter
- d. Use 12mm x 38mm Double metal Furring ga. #26, 5.0m length space at 0.60m o.c.
- e. Use 24mm x 38mm Main Tee, 3.60m length at 0.60m o.c.
- f. Use 24mm x 26mm Cross Tee, 0.60m or 1.20m length at 0.60m o.c.
- g. Use threaded hanger clip for threaded rod / hanger with expansion shield
- h. Use w-clip / double furring clip for the connection of carrying channel and double metal furring.

### SEC. 07300 WALL FINISHES

- 1. 30 cm x 60 cm Polished Ceramic Tiles for Toilet wall tiles,  
height is 1.80 m from flooring and the rest is in Painted Finish  
Color: GRAY/subject for Architect's Approval
- 2. 30 cm x 60 cm White Ceramic wall SUBWAY Tiles for Pantry  
Color: White /subject for Architect's Approval
- 3. Indoor Wall Cladding  
Color: subject for Architect's Approval

### SEC. 07400 OTHER WORKS

- Landscape Plant Box Outdoor
- Rubber Tree 3FT (Indoor Plant)
- Indoor Wall Cladding
- Signages (SIKAT & SINAG) (ACRYLIC)
  
- **BOOTH SEAT**
- Tubular 1x2x6m
- Tubular 2x2x6m
- Laminated Ply Board 3/4
- Upholstery Cushion Seat (Leather)
- **CABINET**
- Pantry Cabinet (Ducco Finish)
- Office Cabinet (Modular)
- Co-Working (Display Shelves & Base Cabinet)
- Laminated Ply Board 3/4 (For bar height table)

Color: subject for Architect's Approval

### DIVISION 8- MECHANICAL

This Division applies to all specifications of the Air Conditioning System and Fire Fighting System for the Proposed Project.

### SEC. 8100 AIR-CONDITION

- 1. Use of Inverter Type Unit





### SEC. 8200 FIRE PROTECTION

1. Use of Smoke Detector, Double Headed Emergency Light, Fire Extinguisher ABC Type, 10 lbs.

### DIVISION 9– ELECTRICAL

#### a. Supply and Installation of Electrical Materials

1. The bidders shall review for the electrical system of the building in accordance with the Philippine Electrical Code latest edition, Fire Code of the Philippines, National Building Code of the Philippines and Local Electrical Utility requirements.

1.1. Power supply (Secondary Voltage) from the Calculated Transformer size (with adequate spare capacity) shall be Single Phase, 230V DELTA connection 60 Hz System, with equipment grounding

1.2. Bidder shall include the Power, LED Interior & External Lighting system, Emergency Lighting system, Exit & Directional Sign Lighting/Power Panel board and control, wiring & cabling, Protection & Metering system.

1.3. Bidder shall include the Design, Supply and Installation of Service Entrance from the Building to nearest Tapping point.

Note: for verification of length in site

### DIVISION 10– PLUMBING

#### PLUMBING SYSTEMS

##### PART I - GENERAL

##### 1.01 DESCRIPTION

1.01.1 Applicable provisions of "General Conditions" govern work under this section.

1.01.2 All fittings, connections and piping embedded in concrete shall be subject to inspection by the Architect/Engineer and/or his representative before covering and/or completion.

1.01.3 The Contractor shall provide all items, articles, materials, operation or methods listed, mentioned or scheduled on the Drawings and/or herein, including all labor, materials, equipment and incidentals necessary and required for their completion.

1.01.4 The contract Drawings and Specifications are complementary to each other, and any labor or materials called for by either, whether or not called for by both, if necessary, for the successful operation of any of the particular type of equipment furnished and installed will be without additional cost to the owner. All dimensional locations of fixtures, drains, riser and pipe chase shall be verified on the architectural drawings and manufacturers' catalogue. All cases where there are conflicts between the Drawings and the Specifications, the contractor shall within three (3) days, inform the Engineer of such conflicts.

##### 1.02 SCOPE OF WORK

Works included under this section of the Specifications consists in furnishing all labor, tools and equipment, appliances and materials necessary for complete installation, testing and operation of the plumbing system in accordance with the contract.

1.02.1 Sanitary drains from the building and their connections to the septic tank.

1.02.2 Soil, waste and vent pipe system of the building as shown on the Drawings.





### PART 2 – PRODUCTS

#### 2.01 DESCRIPTION OF MATERIALS

All materials to be used shall conform to the standards specified. All classes listed are not necessarily required for this project. Of classes listed, only those specifically called for under sections of this Division or shown shall be provided. Use of materials shall further be governed but other requirements imposed on other sections of this Specifications. Materials shall be subject to test necessary to ascertain their fitness if the Engineer so requires.

#### 2.02 TRAPS

2.02.1 Traps installed on threaded pipe shall be recessed drainage pattern.

2.02.2 No trap which depends for its seal on the movable parts shall be used, full S-traps, bell traps and crown vented traps are prohibited.

2.02.3 Trap Clean outs: Each fixture trap except those cast integrals or in combination with fixtures in which the trap seal is readily accessible or if the trap is removable shall have an accessible brass trap screw of ample size.

2.02.4 Underground traps except P-traps on floor drains shall be provided with removable clean outs.

#### 2.03 CLEAN OUT AND CLEANOUT ACCESS COVERS

##### 2.03.1 CLEAN OUTS

a. Clean out shall be of the same size as the pipe, but clean out larger than four inches will not be required, except as shown in the drawings.

b. Clean outs shall be provided in all soil, storm or waste lines at every change in direction greater than 45 degrees.

c. Clean outs shall not be more than 50 feet apart in horizontal drainage lines of 4 inches nominal diameter or less.

#### 2.04 DRAINS

a. Floor Drains at toilets Pipe Size 2"

#### 2.05 FLOOR, WALLS AND CEILING PLATES

2.05.1 Where uncovered exposed pipes pass through floor, finished walls or ceilings, they shall be fitted with chromium plated cast brass plates or chromium plated pipe or steel plates on ferrous pipes.

2.05.2 Plates shall be large enough to completely close the hole around the pipes and shall be octagonal or round with the least dimension not less than one and one-half inches larger than the diameter of the pipe. Plates shall be well secured.

### DIVISION 11– METAL ROOFING

#### SEC. 11100 SCOPE OF WORK

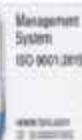
Furnish materials, equipment and perform labor required to complete fitting and installation/ repair/ repainting of roofing Gutter, flashing components, strap and rivet units as the application of supplementary materials to make the roof unit water tight and leak proof.

#### SEC. 11200 MATERIALS

1. Flashing, Trims and Moldings – GA.24 pre-painted with zinc-aluminum alloy from plain sheets, performed with matching shape and fitting provisions as per drawings.







2. Fasteners and Fixation – Use appropriate connectors recommended by the manufacturer and approved by the Architect / Engineer. Paint same color as GUTTER, all exposed fixation consistent, even and standard manner. Apply strip of butyl rubber-based caulking compound along all end lap joints and passing over pre-drilled fixation holes. For fixation of flashing, use 'tekscrews' for roof eaves area where roof frames are exposed.
3. Use pre-painted gutter Ga. 24 with screen

### DIVISION 12– INTERIOR FURNITURES & FIXTURES

Furnish materials and equipment and perform labor required to complete:

- a. See plans for verification of size, quantity and location.
- b. Colors and Quality of Furniture's and fixtures as per Architect / Engineers Approval.

Note: All Built-in Furniture and Fixtures only.

### SECTION 4: DESIGN CONSIDERATIONS

1. Safety
2. Security
3. Functional
4. Aesthetic
5. Energy Efficient Building

### SECTION 5: PROJECT COST ESTIMATES

The bidders shall submit the quantities and cost of the different types of works to be carried out in accordance with DPWH Department Order No. 72 series of 2012 dated October 5, 2012. In particular, the quantities and cost of each work item shall be calculated, and a bill of quantities shall be prepared. The bidders shall draw up a unit price analysis for each of the main pay work items.

The unit price of each of the main work pay items shall include:

- A. Cost of the Preliminary and Detailed Architectural and Engineering Design – Should be in accordance with NEDA guidelines.
- B. Construction Cost of the Project;
  1. The Direct Cost are the following:
    - Cost of Materials to be used in doing the work item called for, which shall include the following:
      - .1. Cost of source, including processing, crushing, stockpiling, loading, local taxes, construction and/or maintenance of haul roads, etc.
      - .2. Expenses for hauling to project site.
      - .3. Handling expenses
      - a.4. Storage
      - a.5. Allowance for waste and/or losses, not to exceed 5% of materials requirement.



- Cost of Labor:
  - .1. Salaries and wages as authorized by the Department of Labor and Employment
- Equipment Expenses:
  - .1. Rental of equipment which shall be based on the prevailing "Associated Construction Equipment Lessors, Inc." (ACEL) rental rates approved for use by the DPWH (Presently it is the 2009 ACEL Rates). Rental rates of equipment not indicated in the ACEL booklet shall be taken from the rental rates prepared by the DPWH Bureau of Equipment. For simplicity in computation, the operated rental rates are preferred over the bare rental rates as the former includes operator's wages, fringe benefits, fuel, oil, lubricants, and equipment maintenance. The make, model and capacity of the equipment should be indicated in the detailed unit cost analysis.
  - .2. Mobilization and demobilization shall be treated as a separate pay item. It shall be computed based on the equipment requirements of the project stipulated in the proposal and contract booklet. In no case shall mobilization and demobilization exceed 1% of the Estimated Direct Cost (EDC) of the civil works items.

2. The Indirect Cost shall consist of the following:

Overhead Expenses - ranges from 5 - 8% of the EDC, which includes the following:

- .1. Engineering and Administrative Supervision.
  - .2. Transportation allowances.
  - a.3. Office Expenses, e.g., for office equipment and supplies, power and water consumption, communication, and maintenance.
  - a.4. Premium on Contractor's All Risk Insurance (CARI).
  - a.5. Financing Cost.
    - Premium on Bid Security
    - Premium on Performance Security
    - Premium on Surety for Advance Payment
    - Premium on Warranty Bond (one year)
- Contingencies - ranges from 0.5 - 3% of the EDC. These include expenses for meetings, coordination with other stakeholders, billboards (excluding Project Billboard which is a pay item under the General requirements), stages during groundbreaking & inauguration ceremonies and other unforeseen events.
  - Miscellaneous Expenses - ranges from 0.5 - 1% of the EDC. These include laboratory tests for quality control and plan preparation.
  - Contractor's Profit Margin – shall be 8% of EDC: for projects above Php5 Million and 10% for projects Php5 Million and below.
  - VAT Component - shall be 7% of the sum of the EDC, OCM and Profit. The following items shall not be subjected to OCM and Profit mark-up:





- .1. Mobilization and demobilization
- .2. Provision of Service Vehicle
- The following non-civil works items shall not be subjected to OCM mark-up:
  - .1. Field/Laboratory Office & Living Quarters (Rental Basis)
  - .2. Furnishing, Laboratory Equipment, Survey Equipment and Consumables
  - .3. Assistance to the Engineers
  - .4. Photographs B.7.5 Health and Safety B.7.6 Traffic Management
  - .5. Environmental Compliance
  - .6. Communication Equipment, etc.

## SECTION 4: CONSTRUCTION PHASE CONSIDERATIONS

### 1. Permits and Clearance

The bidders shall defray and all expenses necessary and incidental for the Project be able to secure the Environmental Clearance Certificate (ECC), including the corresponding Tree Cutting Permit (if any tree needs to be cut from the concerned government agencies, if necessary). The contractor shall, upon authorization of the Municipal Government, make representations with the government agencies concerned to expedite the release of the same. Obtain and pay the corresponding fees for all necessary approvals, permits and certificates such as the following:

1. All other permits required for the construction.

### 2. Temporary Structures & Facilities

The contractor shall provide and maintain the following:

1. Temporary office and/or quarters for the contractor's project team personnel with water, light, telephone, and toilet facilities.
2. Temporary bunkhouse/quarters for the contractor's workforce complete with toilet and bath facilities.

### 3. Mobilization

The contractor shall mobilize all the required project team personnel, equipment, tools and manpower with the required skills and insufficient number as may be necessary for his efficient undertaking of the project.

### 4. Construction Proper

The contractor shall execute all the works under the contract in strict accord with standard engineering methodology and procedures and shall be responsible for maintaining cleanliness and orderliness in the project area throughout the duration of the contract. The Contractor shall deploy qualified workers with necessary certification.

### 5. Electrification

The contractor shall pay to the local power utility the cost of providing the additional electrical distribution facilities for the project.

**6. Material Testing**

All material testing shall be conducted by the accredited testing laboratories.

**7. Subcontracts**

Subcontracting is not allowed.

**8. Key Personnel**

The key personnel must meet the required minimum years of experience set below:

Key Personnel	General Experience	Relevant Experience
1 – Project Engineer/ Manager	5 years	3 years
1 – Foreman	10 years	5 years
1 – Master Plumber	4 years	2 years
2– Electrician	5 years	3 years
3-Painter	5 years	3 years
3 – Skilled	5 years	3 years
3 – Labor	1 year	1 year

**9. Equipment**

The minimum major equipment requirements are the following:

Equipment	Capacity	Number of Units
Utility Vehicles		1
Scaffoldings and framings		1
Dump truck		1

**SECTION 7: CONTRACT IMPLEMENTATION****(Of the 2016 Revised IRR of RA 9184 "ANNEX G")**

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 and other circumstances 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 fourteen (14) calendar days after the issuance of the Notice to proceed for approval by the procuring entity that shall include, among others:

- The order in which it intends to carry out the work including anticipated timing for each stage of design/detailed engineering and construction;
- Periods for review of specific outputs and any other submissions and approvals;
- Sequence of timing for inspections and tests as specified in the contract documents;
- General description of the design and construction methods to be adopted;
- Number and names of personnel to be assigned for each stage of the work;
- List of equipment required on site for each major stage of the work; and
- Description of the quality control system to be utilized for the project.

4. Any errors, omissions, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor's cost. If the

*Vision*

An inclusive and sustainable University recognized for its global academic excellence by 2030.

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To develop innovative leaders and empowered communities by delivering transformative instruction, research, extension and production through Change Drivers and responsive policies.





Contractor wishes to modify any design or document which has been previously submitted, reviewed and approved, the contractor shall notify the procuring entity within a reasonable period of time and shall shoulder the cost of such changes.

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:

i. Change Orders resulting from design errors, omissions or nonconformance with the performance specifications and parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to the procuring entity.

ii. Provided that the contractor suffers delay and/or incurs costs due to changes or errors in the procuring entity's performance specifications and parameters, he shall be entitled to either one of the following:

a. an extension of time for any such delays under Section 10 of Annex E; or

b. payment for such costs as specified in the contract documents, provided, that the cumulative amount of the variation order does not exceed ten percent (10%) of the original contract 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 build 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 62.2.2 of the IRR.H

- END OF SECTION -

### SECTION 6: SUBMITTALS

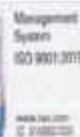
#### I. BIDDING REQUIREMENTS:

##### A. Documents Comprising the Bid: Eligibility and Technical Components

4 Copies (1 original copy and 3 triplicate copies) of bid documents

- a. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- b. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille





pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

- c. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- d. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.

A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

### B. Documents Comprising the Bid: Financial Component

4 Copies (1 original copy and 3 triplicate copies) of bid documents

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

C. Additional Technical Documents 4 Copies (1 original copy and 3 duplicate copies) of bid documents.

### 1. Architectural

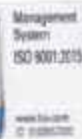
– 4 copies of Architectural Plans in A3 size given by the BPSU OPPE Technical Working Group for Infrastructure

### 2. Electrical

- 4 Copies in A3 size duly signed and sealed by a licensed Professional Electrical Engineer for the design of the electrical system of the building in accordance with the Philippine Electrical Code latest edition, Fire Code of the Philippines, National Building Code of the Philippines and Local Electrical Utility requirements which consists of the following:

1. Site development
2. Lighting layout
3. Power layout
4. Schedule of Loads
5. One line / Riser diagram
6. General Notes
7. Legends and Electrical Design Analysis of the following:
  - a. Short circuit calculation
  - b. Voltage drop calculation
  - d. Protection coordination analysis





f. Illumination Design/Computation for the entire electrical project study.

### 3. Plumbing

- 4 Copies in A3 size signed and sealed for the detailed design for the water supply, drainage and sewer system of the building in accordance with the applicable laws, rules and regulations governing health safety and sanitation which consists of the following:

1. Site development
2. General Notes and Legends
3. Water Line Layout Plan
4. Sewer Line Layout and Drainage Layout Plan
5. Blow-up Details
6. Isometric Diagram


### 4. Mechanical

- 4 Copies in A3 size signed and sealed for the design for the mechanical drawings that include the ACCU LAYOUT AND APPROPRIATE FIRE FIGHTING SYSTEM of the building in accordance with the Fire Code of the Philippines and the National Building Code of the Philippines which consists of the following:

1. ACCU Layout
2. Smoke Detector and Fire Extinguisher Layout Plan
4. Single Line Diagram Layout
5. General Notes and Legends
6. Ancillary Works – The bidders shall provide the ancillary works such as street, parking, and property boundary lights, pavement markings, traffic signs, landscaping, etc.

- END OF SECTION -


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