PHILIPPINE BIDDING DOCUMENTS

Various Infrastructure Projects

2023-SIDA-20

ABC = **₱14,150,000.00**

for

Sugar Regulatory Administration

October 16, 2023

Preface

These Philippine Bidding Documents (PBDs) for the procurement of Infrastructure Projects (hereinafter referred to also as the "Works") through Competitive Bidding have been prepared by the Government of the Philippines for use by all branches, agencies, departments, bureaus, offices, or instrumentalities of the government, including government-owned and/or -controlled corporations, government financial institutions, state universities and colleges, local government units, and autonomous regional government. The procedures and practices presented in this document have been developed through broad experience, and are for mandatory use in projects that are financed in whole or in part by the Government of the Philippines or any foreign government/foreign or international financing institution in accordance with the provisions of the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

The PBDs are intended as a model for admeasurements (unit prices or unit rates in a bill of quantities) types of contract, which are the most common in Works contracting.

The Bidding Documents shall clearly and adequately define, among others: (i) the objectives, scope, and expected outputs and/or results of the proposed contract; (ii) the eligibility requirements of Bidders; (iii) the expected contract duration; and (iv)the obligations, duties, and/or functions of the winning Bidder.

Care should be taken to check the relevance of the provisions of the PBDs against the requirements of the specific Works to be procured. If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

Moreover, each section is prepared with notes intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They shall not be included in the final documents. The following general directions should be observed when using the documents:

a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.

b. Specific details, such as the "*name of the Procuring Entity*" and "*address for bid submission*," should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.

c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.

d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.

f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

TABLE OF CONTENTS

Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

Bid – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender.* (2016 revised IRR, Section 5[c])

Bidder – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

Bidding Documents – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

Consulting Services – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

Contract – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

Contractor – is a natural or juridical entity whose proposal was accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded. Contractor as used in these Bidding Documents may likewise refer to a supplier, distributor, manufacturer, or consultant.

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

Foreign-funded Procurement or Foreign-Assisted Project – Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

GFI – Government Financial Institution.

GOCC – Government-owned and/or –controlled corporation.

Goods – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term "related" or "analogous services" shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

GOP – Government of the Philippines.

Infrastructure Projects – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

Procurement Project – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

Notes on the Invitation to Bid

The Invitation to Bid (IB) provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The IB shall be posted in accordance with Section 21.2 of the 2016 revised IRR of RA No. 9184.

Apart from the essential items listed in the Bidding Documents, the IB should also indicate the following:

a. The date of availability of the Bidding Documents, which shall be from the time the IB is first advertised/posted until the deadline for the submission and receipt of bids;

b. The place where the Bidding Documents may be acquired or the website where it may be downloaded;

c. The deadline for the submission and receipt of bids; and

d. Any important bid evaluation criteria.

The IB should be incorporated into the Bidding Documents. The information contained in the IB must conform to the Bidding Documents and in particular to the relevant information in the Bid Data Sheet.

Republic of the Philippines
Department of Agriculture
SUGAR REGULATORY ADMINISTRATION
Sugar Center Bldg., North Avenue, Diliman, Quezon City, Philippines 1101
TIN 000-784-336
Website: http://www.sra.gov.ph
Email Address: srahead@sra.gov.ph
Tel No. (632) 8929-3633, (632) 3455-2135, (632) 3455-3376

INVITATION TO BID FOR VARIOUS INFRASTRUCTURE PROJECTS (2023-SIDA-20)

1. The SUGAR REGULATORY ADMINISTRATION, through the SIDA GAA 2023 intends to apply the sum of:

   - **Six Million Pesos (₱6,000,000.00) for Lot A**
   - **Four Million One Hundred Fifty Thousand Pesos (₱4,150,000.00) for Lot B**
   - **Four Million Pesos (₱4,000,000.00) for Lot C**

   The above-stated being the ABCs to payments under the contract for:

Lot	Contract Identification No.
A. Beneficial Micro-organism (BMO) Building	**2023-SIDA-20-A**
B. Rehabilitation of Crop Research Building No. 2 (Phase 1)	**2023-SIDA-20-B**
C. Rehabilitation of Crop Research Building No. 3 (Phase 2)	**2023-SIDA-20-C**

2. The SUGAR REGULATORY ADMINISTRATION now invites bids for the above Procurement Project. Completion of the Works is required within the periods stated below per project upon receipt of the Notice to Proceed. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).

Lot	Contract Duration
A. Rehabilitation Beneficial Micro-organism (BMO) Building	**120 calendar days**
B. Rehabilitation of Crop Research Building No. 2 (Phase 1)	**90 calendar days**
C. Rehabilitation of Crop Research Building No. 3 (Phase 2)	**90 calendar days**

3. Bidding will be conducted through open competitive bidding procedures using non-discretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

4. Interested bidders may obtain further information from SUGAR REGULATORY ADMINISTRATION and inspect the Bidding Documents at the address given below from 8:00 A.M. to 5:00 P.M.

5. A complete set of Bidding Documents may be acquired by interested Bidders on October 17 to November 7, 2023 from the given address and website(s) below upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB in the amounts indicated below. The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person or through electronic means.

6.

Lot	Description	Fee (₱)
A	Rehabilitation Beneficial Micro-organism (BMO) Building	₱6,000.00
B	Rehabilitation of Crop Research Building No. 2 (Phase 1)	₱4,000.00
C	Rehabilitation of Crop Research Building No. 3 (Phase 2)	₱4,000.00

7. The SUGAR REGULATORY ADMINISTRATION will hold a Pre-Bid Conference on October 24, 2023; 11:00 A.M at the SRA-Bacolod Conference Room, Araneta St., Singcang, Bacolod City. This shall be open to prospective bidders who shall have the option to attend either physically or through video conferencing via the Zoom platform.

8. Bids must be duly received by the BAC Secretariat through manual submission at the office address indicated below, on or before November 7, 2023; 8:00 A.M. Late bids shall not be accepted.

9. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.

10. Bid opening shall be on November 7, 2023; 11:00A.M. at the given address below and will be made available via Zoom platform for those who choose to attend virtually. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

11. The SUGAR REGULATORY ADMINISTRATION reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

12. For further information, please refer to:

    MARIA LUCIA C. SANCHEZ
    RBAC Secretariat Head
    Sugar Regulatory Administration
    Araneta St., Singcang, Bacolod City, Negros Occidental 6100
    sra.rbac@sra.gov.ph

Tel. (034) 460-8530
www.sra.gov.ph

13. You may visit the following websites for downloading of Bidding Documents:

    www.sra.gov.ph
    www.philgeps.gov.ph

October 16, 2023

ATTY. IGNACIO S. SANTILLANA
Chairperson
Regional Bids and Awards Committee

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

This Section on the Instruction to Bidders (ITB) provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Entity. It also provides information on bid submission, eligibility check, opening and evaluation of bids, post-qualification, and on the award of contract.

1. Scope of Bid

The Procuring Entity, SUGAR REGULATORY ADMINISTRATION invites Bids for the projects listed below.

Lot	Contract Identification No.
A. Beneficial Micro-organism (BMO) Building	**2023-SIDA-20-A**
B. Rehabilitation of Crop Research Building No. 2 (Phase 1)	**2023-SIDA-20-B**
C. Rehabilitation of Crop Research Building No. 3 (Phase 2)	**2023-SIDA-20-C**

The Procurement Project (referred to herein as "Project") is for the construction of Works, as described in Section VI (Specifications).

2. Funding Information

2.1. The GOP through the source of funding as indicated below for 2023 in the amount of One Million Pesos (₱14,150,000.00).

2.2. The source of funding is: General Appropriations Act (GAA) – SIDA 2023.

3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manual and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or invitation to bid by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and

obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.

5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.

5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

7. Subcontracts

7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than fifty percent (50%) of the Project.

The Procuring Entity has prescribed that:

Subcontracting is not allowed.

7.2. Subcontracting of any portion of the Project does not relieve the Contractor of any liability or obligation under the Contract. The Supplier will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants, or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants, or workmen.

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address SRA Conference Room, Araneta St.,

Singcang, Bacolod City and/or through videoconferencing/webcasting as indicated in paragraph 6 of the **IB.**

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10. Documents Comprising the Bid: Eligibility and Technical Components

10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.

10.2. 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.

10.3. A valid special PCAB License in case of Joint Ventures, 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**.

10.4. 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**.

10.5. 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**.

11. Documents Comprising the Bid: Financial Component

11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.

11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.

11.3. 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.

12. Alternative Bids

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.

13. Bid Prices

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

14. Bid and Payment Currencies

14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

14.2. Payment of the contract price shall be made in Philippine Pesos.

15. Bid Security

15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.

15.2. The Bid and bid security shall be valid until March 6, 2024. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB.**

18. Opening and Preliminary Examination of Bids

18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.

19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 15 shall be submitted for each contract (lot) separately.

19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

Section III. Bid Data Sheet

Notes on the Bid Data Sheet (BDS)

The Bid Data Sheet (BDS) consists of provisions that supplement, amend, or specify in detail, information, or requirements included in the ITB found in Section II, which are specific to each procurement.

This Section is intended to assist the Procuring Entity in providing the specific information in relation to corresponding clauses in the ITB and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS information and requirements specific to the circumstances of the Procuring Entity, the processing of the procurement, and the bid evaluation criteria that will apply to the Bids. In preparing the BDS, the following aspects should be checked:

a. Information that specifies and complements provisions of the ITB must be incorporated.

b. Amendments and/or supplements, if any, to provisions of the ITB as necessitated by the circumstances of the specific procurement, must also be incorporated.

Bid Data Sheet

<table>
<tr><th>ITB Clause</th><th></th></tr>
<tr><td>5.2</td><td>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be:

The contracts similar to the projects are, as follows:

Vertical Infrastructure Projects</td></tr>
<tr><td>10.3</td><td>None.</td></tr>
<tr><td>10.4</td><td>The key personnel must meet the required minimum years of experience set below:

<table>
<tr><th>Key Personnel</th><th>General Experience</th><th>Relevant Experience</th></tr>
<tr><td>Project Construction Engineer</td><td>Civil Engineer/Licensed</td><td>10 years</td></tr>
<tr><td>Project Engineer</td><td>Civil Engineer</td><td>5 years</td></tr>
<tr><td>Electrical Engineer</td><td>Electrical Engineer/Licensed</td><td>5 years</td></tr>
<tr><td>Safety Engineer</td><td>Electrical Engineer/ Mechanical Engineer/ Civil Engineer</td><td>2 years with COSH/BOSH Certificate of Training</td></tr>
<tr><td>Electrician</td><td>Registered Master Electrician</td><td>5 years</td></tr>
<tr><td>General Foreman</td><td></td><td>5 years</td></tr>
<tr><td>Heavy Equipment Operators</td><td></td><td>5 years</td></tr>
<tr><td>Skilled Workers</td><td></td><td>3 years</td></tr>
<tr><td>Laborers</td><td></td><td>2 years</td></tr>
</table>
</td></tr>
<tr><td>10.5</td><td>The minimum major equipment requirements are the following:

<table>
<tr><th>Equipment</th><th>Capacity</th><th>Number of Unit</th></tr>
<tr><td>Welding Machine</td><td>300A</td><td>1 unit</td></tr>
<tr><td>Cutter/Grinder</td><td>100MM 700W</td><td>2 units</td></tr>
<tr><td>Bagger Mixer</td><td>One (1)</td><td>1 unit</td></tr>
<tr><td>Plate Compactor</td><td>6.5HP</td><td>1 unit</td></tr>
<tr><td>Electric Drill</td><td>½ in O</td><td>1 unit</td></tr>
</table>
</td></tr>
<tr><td>12</td><td>None.</td></tr>
<tr><td>15.1</td><td>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:

a. The amount of not less than what is indicated below for each Lot if bid security is in cash, cashier’s/manager’s check, bank draft/guarantee or irrevocable letter of credit;

<table>
<tr><th>Lot</th><th>Description</th><th>ABC (₱)</th><th>Bid Security</th></tr>
<tr><td>A</td><td>Rehabilitation of Beneficial Micro-organism (BMO) Building</td><td>₱6,000,000.00</td><td>₱120,000.00</td></tr>
</table>
</td></tr>
</table>

	B	Rehabilitation of Crop Research Building No. 2 (Phase 1)	₱4,150,000.00	₱83,000.00
	C	Rehabilitation of Crop Research Building No. 3 (Phase 2)	₱4,000,000.00	₱80,000.00

or

b. The amount of not less than what is indicated below for each Lot if bid security is in Surety Bond.

Lot	Description	ABC (₱)	Bid Security
A	Rehabilitation of Beneficial Micro-organism (BMO) Building	₱6,000,000.00	₱300,000.00
B	Rehabilitation of Crop Research Building No. 2 (Phase 1)	₱4,150,000.00	₱207,500.00
C	Rehabilitation of Crop Research Building No. 3 (Phase 2)	₱4,000,000.00	₱200,000.00

c.

20	Philippine Contractors Accreditation Board (PCAB) license
21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and Programme Evaluation Review Technique / Critical Path Method (PERT/CPM) or other acceptable tools of project scheduling.

Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

The General Conditions of Contract (GCC) in this Section, read in conjunction with the Special Conditions of Contract in Section V and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

Matters governing performance of the Contractor, payments under the contract, or matters affecting the risks, rights, and obligations of the parties under the contract are included in the GCC and Special Conditions of Contract.

Any complementary information, which may be needed, shall be introduced only through the Special Conditions of Contract.

1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

2. Sectional Completion of Works

If sectional completion is specified in the **Special Conditions of Contract (SCC)**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date shall apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

3. Possession of Site

3.1 The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the **SCC,** which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.

3.2 If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

4. The Contractor's Obligations

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 and specified in the **BDS**, to carry out the supervision of the Works.

The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.

5. Performance Security

5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.

5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

6. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **SCC** supplemented by any information obtained by the Contractor.

7. Warranty

7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.

7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the **SCC**.

8. Liability of the Contractor

Subject to additional provisions, if any, set forth in the **SCC**, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

9. Termination for Other Causes

Contract termination shall be initiated in case it is determined *prima facie* by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

10. Dayworks

Subject to the guidelines on Variation Order in Annex "E" of the 2016 revised IRR of RA No. 9184, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Procuring Entity's Representative has given written instructions in advance for additional work to be paid for in that way.

11. Program of Work

11.1. The Contractor shall submit to the Procuring Entity's Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC.**

11.2. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC.** If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

12. Instructions, Inspections and Audits

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

13. Advance Payment

The Procuring Entity shall, upon a written request of the Contractor which shall be submitted as a Contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum, or at the most two installments according to a schedule specified in the **SCC**, subject to the requirements in Annex "E" of the 2016 revised IRR of RA No. 9184.

14. Progress Payments

The Contractor may submit a request for payment for Work accomplished. Such requests for payment shall be verified and certified by the Procuring Entity's Representative/Project Engineer. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.

15. Operating and Maintenance Manuals

15.1. If required, the Contractor will provide "as built" Drawings and/or operating and maintenance manuals as specified in the **SCC.**

15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

Section V. Special Conditions of Contract

Notes on the Special Conditions of Contract

Similar to the BDS, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC found in Section IV.

The Special Conditions of Contract (SCC) complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity's country, the sector, and the Works procured. In preparing this Section, the following aspects should be checked:

a. Information that complements provisions of the GCC must be incorporated.

b. Amendments and/or supplements to provisions of the GCC as necessitated by the circumstances of the specific purchase, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of the GCC should be incorporated herein.

Special Conditions of Contract

<table>
<tr><th>GCC Clause</th><th></th></tr>
<tr><td>2</td><td>Not applicable.</td></tr>
<tr><td>4.1</td><td>Upon receipt of the Notice to Proceed</td></tr>
<tr><td>6</td><td>The site investigation reports are: The Civil Works Pre-Inspection Report and the Ocular Site Inspection conducted by the prospective Contractor</td></tr>
<tr><td>7.2</td><td>Fifteen (15) years.</td></tr>
<tr><td>10</td><td>Dayworks are applicable at the rate shown in the Contractor’s original Bid.</td></tr>
<tr><td>11.1</td><td>The Contractor shall submit the Program of Work to the Procuring Entity’s Representative within seven (7) days of delivery of the Notice of Award.</td></tr>
<tr><td>11.2</td><td>The amount to be withheld for late submission of an updated Program of Work per project are, as follows:

<table>
<tr><td>Lot A.</td><td>Rehabilitation of Beneficial Micro-organism (BMO) Building</td><td>₱600,000.00</td></tr>
<tr><td>Lot B.</td><td>Rehabilitation of Crop Research Building No. 2 (Phase 1)</td><td>₱415,000.00</td></tr>
<tr><td>Lot C.</td><td>Rehabilitation of Crop Research Building No. 3 (Phase 2)</td><td>₱400,000.00</td></tr>
</table></td></tr>
<tr><td>13</td><td>The amount of the advance payment per project are, as follows:

<table>
<tr><td>Lot A.</td><td>Rehabilitation of Beneficial Micro-organism (BMO) Building</td><td>₱900,000.00</td></tr>
<tr><td>Lot B.</td><td>Rehabilitation of Crop Research Building No. 2 (Phase 1)</td><td>₱622,500.00</td></tr>
<tr><td>Lot C.</td><td>Rehabilitation of Crop Research Building No. 3 (Phase 2)</td><td>₱600,000.00</td></tr>
</table></td></tr>
<tr><td>14</td><td>Not allowed</td></tr>
<tr><td>15.1</td><td>The date by which operating and maintenance manuals are required is upon issuance of the Certificate of Acceptance.

The date by which “as built” drawings are required is upon issuance of the Certificate of Acceptance.</td></tr>
<tr><td>15.2</td><td>The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required per project are, as follows:

<table>
<tr><td>Lot A.</td><td>Rehabilitation of Beneficial Micro-organism (BMO) Building</td><td>₱600,000.00</td></tr>
<tr><td>Lot B.</td><td>Rehabilitation of Crop Research Building No. 2 (Phase 1)</td><td>₱415,000.00</td></tr>
<tr><td>Lot C.</td><td>Rehabilitation of Crop Research Building No. 3 (Phase 2)</td><td>₱400,000.00</td></tr>
</table></td></tr>
</table>

Section VI. Specifications

Notes on Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Entity without qualifying or conditioning their Bids. In the context of international competitive bidding, the specifications must be drafted to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of economy, efficiency, and fairness in procurement be realized, responsiveness of Bids be ensured, and the subsequent task of bid evaluation facilitated. The specifications should require that all goods and materials to be incorporated in the Works be new, unused, of the most recent or current models, and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

Samples of specifications from previous similar projects are useful in this respect. The use of metric units is mandatory. Most specifications are normally written specially by the Procuring Entity or its representative to suit the Works at hand. There is no standard set of Specifications for universal application in all sectors in all regions, but there are established principles and practices, which are reflected in these PBDs.

There are considerable advantages in standardizing General Specifications for repetitive Works in recognized public sectors, such as highways, ports, railways, urban housing, irrigation, and water supply, in the same country or region where similar conditions prevail. The General Specifications should cover all classes of workmanship, materials, and equipment commonly involved in construction, although not necessarily to be used in a particular Works Contract. Deletions or addenda should then adapt the General Specifications to the particular Works.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for goods, materials, and workmanship, recognized international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the specifications should state that goods, materials, and workmanship that meet other authoritative standards, and which ensure substantially equal or higher quality than the standards mentioned, will also be acceptable. The following clause may be inserted in the SCC.

Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure

a substantially equal or higher quality than the standards and codes specified will be accepted subject to the Procuring Entity's Representative's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Procuring Entity's Representative at least twenty-eight (28) days prior to the date when the Contractor desires the Procuring Entity's Representative's consent. In the event the Procuring Entity's Representative determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

These notes are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final Bidding Documents.

Lot A. Rehabilitation of Beneficial Micro-Organism Building (BMO)

NAME OF PROJECT	***: REHABILITATION OF BENEFICIAL MICRO-ORGANISM BUILDING (BMO)***
LOCATION	***: LGAREC, LA CARLOTA, NEGROS OCCIDENTAL***
OWNER	***: SUGAR REGULATORY ADMINISTRATION***
ABC	***: PHP 6,000,000.00***
DURATION	***: 120 CALENDAR DAYS***

SCOPE OF WORK

1. *Mobilization and Demobilization;*
2. *Clearing and grubbing;*
3. *Demolition works on existing structure for the establishment of BMO laboratory;*
4. *Lay-out and staking;*
5. *Excavation works for building foundations and footing beddings;*
6. *Fabrication of scaffoldings and other supports;*
7. *Establishment of footings, footing supports, and columns including forms and concrete pouring;*
8. *Establishment of beams, beam supports, forms and concrete pouring;*
9. *Fabrication and installation of trusses, rafters, supports and roofing;*
10. *Wall establishments (footings, laying of hollow blocks and concrete pouring) and plastering;*
11. *Ceiling works and installations;*
12. *Plumbing works (pipe and fittings installations);*
13. *Flooring works and establishments; filling and compaction, bedding, rebar installations and concrete pouring;*
14. *Painting works (ceiling, walls);*
15. *Electrical installations (service entrance, panel board, electrical conduits, wirings, and other electrical fixtures);*
16. *Installations of tiles, floor drains, water closets;*
17. *Carpentry works (cabinets);*
18. *Installation of office and laboratory equipment;*
19. *Clearing after work completion.*

Prepared and submitted by:

MICHAEL R. HAMAYBAY
COS-Agricultural Biosystems Engineer I

Checked and reviewed by:

ENGR. NORMEL L. FAJARITO
Civil Engineer, TWG-Infra Projects

Noted by:

MA. THERESA D. ALEJANDRINO
SSRS, In-charge BMO

Noted by:

MA. LOURDES C. ALMODIENTE, Dr. Dev.

Approved by:

ATTY. IGNACIO S. SANTILLANA
Deputy Administrator II, RDE

NAME OF PROJECT	**: REHABILITATION OF BENEFICIAL MICRO-ORGANISM BUILDING (BMO)**
LOCATION	**: LGAREC, LA CARLOTA CITY, NEG. OCC.**
OWNER	**: SUGAR REGULATORY ADMINISTRATION**
SUBJECT	**: TECHNICAL SPECIFICATIONS**
ABC	**: Php 6,000,000.00**
DURATION	**: 120 CALENDAR DAYS**

I. GENERAL REQUIREMENTS

Scope of Work

This section shall include the mobilization and demobilization of Contractor's plant, equipment, materials and employee to the site; compliance with the contract requirements; this section shall include the furnishing of labor, materials, transportation, tools, supplies, plant, equipment and appurtenances to complete satisfactorily the construction of the proposed subproject.

Mobilization and Demobilization

The Contractor upon receipt of the Notice to Proceed shall immediately mobilize and transport his plant, equipment, materials and employees to the site and demobilize or remove the same at the completion of subproject.

Compliance with Contract Requirements

Control of on-Site Construction

Prior to the start of any definable feature of the work, the Contractor must perform the necessary inspection to include as follows:

(1) Review of Contract Documents to make sure that material, equipment and products have been tested, submitted and approved.

(2) Physical examination of materials and equipment to assure its conformity to the specifications, plans, shop drawings and other data.

(3) As soon as the work has been started the Contractor shall conduct initial inspection to check and review the workmanship in compliance with the contract requirements for a particular item of work.

(4) The Contractor shall perform these inspections on a regular basis to assure continuing compliance with the contract requirements until completion of a particular type of work

Preconstruction Meetings

Prior to the start of construction, Contractor's material men or vendors whose presence is required, must attend preconstruction meetings as directed for the purpose of discussing the execution of work.

Progress Meetings

Progress meetings shall be called upon by the following for the purpose of discussing the implementation of the work.

(1) When called upon by the Engineer or the Procuring Entity or his representative for the purpose of discussing the execution of work. Contractor's material men or vendors whose presence is necessary or requested must attend progress meetings. Each of such meeting shall be held at the time and place designated by the Engineer or his representative.

Decisions and instructions agreed on these meetings shall be binding and conclusive on the contract. Minutes of this meeting shall be recorded and reasonable number of copies shall be furnished to the Contractor for distribution to various materials men and vendors involved.

(2) The Contractor may also call for a progress meeting for the purpose of coordinating, expediting and scheduling the work. In such meeting Contractor's material men or vendors, whose presence is necessary or requested are required to attend.

Progress Reports and Construction Logbook

The Contractor shall prepare and submit progress reports to the Engineer weekly and every 30 days for each month from the start of the sub-project's mobilization up to its completion, showing the work completed, work remaining to be done, the status of construction equipment, labor, and materials at the site and deliveries. Construction logbook shall be available showing

actual works in daily basis including other information such as weather conditions, truck delivery, visitors, etc.

Shop Drawings

The Contractor shall submit and furnish shop drawings and samples accompanied with transmittal forms in accordance with the provision of the Conditions of Contract.

(1) Transmittal forms shall be filled out in typewritten or ink with no alterations or interlineations unless initialled and dated before submittal. Shop drawings shall be submitted as the same size as the contract drawings when practicable, but in no case, it shall exceed dimension of the contract drawings. The Contractor shall make preliminary check of all shop drawings for compliance with the contract documents and he shall stamp each print with statement of compliance with the requirements. The contractor may authorize his supplier to deal directly with the Engineer with regard to shop drawings; however ultimate responsibility for accuracy and completeness in the submittal shall remain with the Contractor.

(2) The said shop drawing and transmittal shall be submitted at a time sufficiently early, to allow review of the same by the Engineer and to accommodate the rate of construction progress required under the contract. The contractor shall submit print copies of shop drawings with transmittal forms, and copies of brochures with transmittal forms, as required by the Engineer.

(3) Any shop drawings and samples, submitted not accompanied by transmittal forms or where all applicable items on the forms are not completed will be returned for re-submittal. The Engineer who will check and evaluate mentioned shop drawings will retain print copy for his file and return the rest to the Contractor with notation. Returned shop drawings marked "No Exceptions Taken" or "Make Corrections Noted", means formal revision of said drawings will not be required. If it is marked "Amend-Resubmit" or "Rejected-Resubmit", the Contractor shall revise said drawing and shall submit revised drawing to the Consultant.

(4) The Engineer shall process the submission and indicate the appropriate action on the shop drawings and transmittal forms. Construction of an item shall not be commenced before the Engineer has reviewed the pertinent shop drawing and returned it to the Contractor, marked as mentioned above. Revisions indicated on shop drawing shall be considered as changes necessary to meet the requirements of the contract drawings and specifications, and shall not be taken as the basis of claims for extra work. The Contractor shall have no claim for damages or extension of time due to any delay, resulting from having Contractors make the required revisions, unless review by the Engineer was delayed beyond reasonable period of time and unless the Contractor can establish that such delay in revision resulted in delay of the project. Re-submittal procedure shall follow the same procedure as the initial submittal.

Construction Photographs

The Contractor shall take photographs during the progress of the work once a month, all taken where directed by the Engineer. At the completion of one project final photographs shall be taken by the Contractor as directed by the Engineer. Two prints of each photograph shall be sent to the Procuring Entity and one print to the Engineer. The photographs shall be neatly labelled, dated, and identified in a little box in the lower right-hand corner, showing the date of exposure, project name, location and direction of view.

All negatives and/or electronic copies shall be retained by the Contractor until completion of the work at which time they shall become the property of the Procuring Entity.

Cleaning-up

The Contractor shall at all times keep the construction area including storage area used by him free from accumulations of waste material or rubbish. Upon completion of construction, the Contractor Technical Specifications shall leave the work and premises in clean, neat and workmanlike conditions satisfactory to the Procuring Entity.

Documents to be submitted

The following documents shall be submitted by the Contractor to the Engineer and Procuring Entity prior to final payment and before issuance of final certificate of payment in accordance with the provisions of the Conditions of Contract.

(1) The guarantee required by the Conditions of Contract and any other extended guarantees stated in the technical sections of the specifications.

(2) A set of As-Built drawings shall be submitted showing accurate record of changes or deviations from the contract documents and the shop drawings indicating the work as actually installed. Records shall be arranged in order, in accordance with the various sections of the specifications and properly indexed with certifications of endorsement thereof, that each of the revised print of the drawings and specifications are complete and accurate. Prior to the application for final payment, and as a condition to its approval by the Engineer and the Procuring Entity, the Contractor shall deliver the records, drawings, and specifications.

II. EXCAVATION

All excavation shall be made to grade indicated in the drawings. The materials to be excavated shall include: any rock, earth and other materials of any nature description encountered in obtaining the indicated lines and grades. No fill or other surcharge loads shall be placed adjacent to any building or structure unless such building or structure is capable of withstanding the additional Loads caused by the fill surcharge.

III. BACKFILLING AND COMPACTION

When the concrete poured on the foundations has hardened and can already withstand the pressure resulting from fills, the materials removed from excavations shall be used for backfilling them. The fills and backfills shall be placed in layers not more than 150mm (6") in thickness. Each succeeding layer shall be thoroughly compacted by wetting, tamping and rolling.

IV. PLAIN AND REINFORCED CONCRETE

A. General Requirements

1. Acronyms

The following acronyms for applicable standards/publications are referred to in this specification:

a. ASTM – American Society for Testing Materials
b. ACI – American Concrete Institute
c. AWS – American Welding Society
d. AISC – American Institute of Steel Construction

2. Standard Specifications and Codes

The work covered by this Section unless otherwise specified or detailed, shall be governed by the Building Code requirements for Reinforced Concrete (ACI – 318), Standard Code for the Arc and Gas Welding Society. The latest edition of all standard specification or codes will be used.

3. Coordination

The concrete work shall coordinate with the work of other trades to allow reasonable time to set sleeves, inserts and other accessories which must be in position before concrete bases.

4. Workmanship

The Contractor shall be responsible for any additional cost which may result from concrete surfaces which are not finished to the required profile or elevation.

5. Samples

The Contractor shall submit samples of cement and aggregates proposed for use in concrete work approval, enumerating names, sources and description of materials.

B. Materials Requirements

1. Portland Cement

a. Portland cement shall conform to the requirements of ASTM C-150 Type for normal Portland cement; Type III for High Early Strength Portland Cement. Cement shall be any standard commercial brand in 40 kilograms per bag.

2. Fine Aggregates

Sand shall be clean, hard, coarse river sand or crushed sand free from injurious amount of clay loam and vegetable matter and shall conform to ASTM C-33 or C-330.

3. Coarse Aggregates

Gravel shall be river run gravel or broken stones. The maximum size shall be 1/5 of the nearest dimension between sides of forms of the concrete, or ¾ of the minimum clear spacing between reinforcing bars, between rebars and forms whichever is smaller.

4. Mixing Water

Water used in mixing concrete shall be clean and free from injurious amount of oils, acids, alkali, organic materials or other deleterious substances.

5. Admixture

All air-entraining admixtures if used shall conform to ASTM C-260. Water reducing admixtures, retarding admixtures, and water reducing and accelerating admixtures, if used, shall conform to the requirements of ASTM C-494.

C. Proportioning of Concrete Mixture

All concrete works for this project shall be undertaken in accordance with the standard specifications for plain and reinforced concrete as approved by the Government.

The following proportions of concrete shall be used for various parts of the building:

1. Footings and Columns.....Class A (1 :2 : 4)
2. Girders, Beams and Slabs.....Class A (1 :2 : 4)
3. Septic Vault Cover.....Class A (1 :2 : 4)
4. Concrete Hollow Block Footings.....Class B (1: 2 ½ : 5)
5. Concrete Slab on fill.....Class B (1: 2 ½ : 5)

Class A concrete shall be a mixture of 1 part cement, 2 parts fine aggregates and 4 parts coarse aggregates by volume, plus enough water to make the mixture into a pliable paste.

Class B concrete shall be a mixture of 1 part cement, 2 1/2 parts fine aggregates and 5 parts coarse aggregates by volume, plus enough water to make the mixture into a pliable paste.

Class C concrete shall be a mixture of 1 part cement, 3 parts fine aggregates and 6 parts coarse aggregates by volume, plus enough water to make the mixture into a pliable paste.

The fine aggregates for concrete shall consists of natural sand or of inert materials with similar characteristics, having hard, clean and durable grains, free from organic matters or loam.

The coarse aggregates for concrete shall be of crushed rock or durable qualities, or clean and hard gravel. Size of the coarse aggregates to be used shall vary from 200mm (3/4") to 400mm (1 ½").
Concrete slabs on fill shall be poured on a layer of hard gravel fill spread over well-compacted and thoroughly tampered earth fill. Each concrete slab course to be poured shall not be more than one meter wide, and each course shall be poured alternatively to the indicated floor finishes.

D. Steel Reinforcing Bars

Steel reinforcing bars to be used for this project shall consists of standard deformed structural bars meeting ASTM A-305 specifications.

The steel reinforcements for concrete shall be formed accurately according to sizes of the columns, beams, girders, footings, slab, etc., where they are to be used. They shall be tied together each bar intersection with gauge no. 16 G.I. tie wire or by welding and it shall conform with ASTM A-82.

No steel bars shall be installed unless it is free from rust, scale or other coating which would destroy or reduce the bond with concrete. The reinforcement bars must be positioned such that there is space between the steel at the sides and bottom of the forms.

E. Forms

Forms shall conform to the shape, lines and dimensions shown on the drawings. They shall be substantial and designed to resist the pressure and weight of the concrete.

Forms shall be properly tied and braced and shored so as to maintain their position and shape. Forms shall be sufficiently tight and strong to prevent leakage.

Removal of forms or shoring is subject to approval by the Engineer and under no circumstances shall bottom form and shoring be removed until after the members have acquired sufficient strength to support their weight and the load thereon. Forms shall remain in place for a minimum time as follows:

Foundation.....1 days
Walls.....2 days
Beams and suspended slabs.....14 days

V. MASONRY

The work covered by this item shall include the following:

1. Furnishing of all necessary materials, tools and equipment, and labor necessary to complete the execution of the concrete masonry work as shown on the drawings and herein specified.

2. All preparation for masonry works necessary to receive and adjoin other work, including provision for inserts and attachments as noted in the plans and specifications which shall be installed under the terms of this work.

3. Furnishing of all reinforcing steel for concrete masonry work and their placement including those not provided for under their section but necessary for prosecution of the work.

4. Arranging for the necessary storage space and protection for materials at the job site.

5. Providing assistance and facilities for all inspections by the Owner or his authorized representative as required in the course of execution of the work.

6. Arranging for furnishing test specimens and samples of materials as may be required.

Material Requirements

The following materials to be used under this section of the specifications shall conform to the masonry standards as indicated:

1. Cement to conform with ASTM C-150

2. Sand or fine aggregates shall be clear, sharp and well graded and free from injurious amount of dust, lumps, shale, alkali, surface coatings and organic matter.

3. Lime: Hydrated lime shall conform with ASTM C-207.

4. Quick lime shall conform with ASTM C-5 specifications. Quicklime shall be slaked and then screened through a 16 mesh sleeve.

Mortar and grout

All cells of concrete hollow blocks to be laid shall be filled with cement mortar mixture of 1 part cement and 3 parts sand, by volume. The horizontal joints between units shall be provided with 1:3 cement mortar mix at least 10mm thick.

Concrete Hollow block size

Walls.....4" X 8" X 16"

Reinforcing steels

1. Minimum requirements for deformed steel bars shall conform to ASTM A-305.
2. Wire reinforcement shall also conform with ASTM A-82.

3. Reinforcement shall be clean and free from loose, rust, scales and any coating that will reduce bond.

4. Schedule of CHB reinforcement shall be as follows:

Block Thickness mm	Horizontal Reinforcement	Vertical Reinforcement
100	10mmØ @ 600mm o.c.	10mmØ @ 600mm o.c.

Plastering

The Contractor shall furnish all cement plaster materials, labor and tools and equipment required in undertaking cement plaster finish as shown on the plans and in accordance with this specification.

Cement plaster finish shall be true to details and plumbed. Finish surface have no visible junction marks where one day's work adjoins the other.

Cement plaster finish shall not be applied directly to the concrete or masonry surface that been coated with bituminous compound and surface that had been painted or previously plastered.

VI. ELECTRICAL WORKS

All electrical works shall conform to all the requirements of the Philippine Electrical Code and with the rules and regulations of the local utility company.

VII. ROOF AND ROOF FRAMING

All materials to be used must be standard and shall follow the indicated specifications in the drawing and program of works and or as directed by the supervising engineer.

VIII. CEILING WORKS

All materials to be used must be standard and shall embark the specification listed in the drawing and program of works.

IX. PLUMBING WORKS

All plumbing works as shown the engineering drawings shall conform to all the requirements of the Plumbing Code of the Philippines and with the rules and regulations of the local utility company.

X. DOORS AND WINDOWS

A. DOORS

Door 1 - Glass Door, frameless Swing, tempered, 1.8m x 2.1m x atleast 10mm thick
Door 2 - Glass Door, Double Sliding, tempered, 2.0m x 2.1m x 6mm thick
Door 3 - Hardwood Swing Door, 0.9m x 2.1m
Door 4 - uPVC Flush Door, 0.6m x 2.1m

B. WINDOWS

Window 1 - Glass Window, sliding, tempered, 2.4m x 1.2m
Window 2 - Glass Window, sliding, tempered, 1.8m x 1.2m
Window 3 - Glass Window, sliding, tempered, 1.8m x 0.6m
Window 4 - Glass Window, fix, tempered, 0.7m x 2.1m
Window 5 - Glass Window, fix, tempered, 0.5m x 2.1m
Window 6 - Awning Glass Window, tempered 0.4m x 0.4m

Doors and windows shall have complete sets of accessories. Any changes and or alterations of doors and windows schedules shall be known and must be coming from the end user and or from the in-charge engineer of SRA.

XI. TILING WORKS

Building flooring tiles shall be ceramic 300mm x 300mm, white color. Comfort room shall have a non-skid flooring tiles and smooth tiles for walls at 1.5 meters height. Pathways shall be installed with non-skid tiles.

XII. CARPENTRY WORKS

Under sink cabinets shall be made from ½" marine plywood for covers fix with hinges, locks and framed with ½" x 1 ½" hardwood and color specified by the end user.

XIII. PAINTING WORKS

Ceiling paints shall be off-white in color, and any changes in it, it shall be known or come from the end user. Wall paint color for interior shall be off-white, exterior wall color shall be gray and all paints to be used must be quick drying water base paints.

Prepared and submitted by:

MICHAEL R. HAMAYBAY
Senior Agriculturist/OIC-Engineer III

Checked and reviewed by:

ENGR. NORMEL L. FAJARITO
Civil Engineer, TWG-Infra Projects

Noted by:

MA. THERESA D. ALEJANDRINO
SSRS, In-charge, BMO

MA. LOURDES C. ALMODIENTE, Dr. Dev
OIC – SRA-LGAREC Station

Approved by:

ATTY. IGNACIO S. SANTILLANA
Deputy Administrator II, RDE

Lot B. Rehabilitation of Crop Research Building No.2 (Phase 2)

NAME OF PROJECT	***: REHABILITATION OF CRB#2(Phase 1)***
LOCATION	***: LGAREC, LA CARLOTA, NEGROS OCCIDENTAL***
OWNER	***: SUGAR REGULATORY ADMINISTRATION***
ABC	***: PHP 4,150,000.00***
DURATION	***: 90 CALENDAR DAYS***

SCOPE OF WORK

1. *Mobilization and Demobilization;*
2. *Clearing, chipping, removal and demolition of existing roofing, roofing frames;*
3. *Removal of ceiling frames and cover/panels;*
4. *Pull-out/removal of roof sheets and electrical fixtures (wires, lamps, junction boxes, utility boxes and others that were included in the plan) and wooden structural frameworks;*
5. *Fabrication of scaffoldings, forms and other supports;*
6. *Fabrication and installation of beam rebars and concrete pouring;*
7. *Lay-out, fabrication and installation of steel trusses, purlins, rafters, and other roof framing members applied with metal primer;*
8. *Masonry and concreting works for walls, beams and roof deck;*
9. *Remove and replace downspout and other waterline fixtures with complete fittings;*
10. *Lay-out and installations of roofs, wall flashing, ridge roll and other bended materials;*
11. *Lay-out and installation of ceiling frames and ceiling cover;*
12. *Lay-out and installations of glass doors and windows;*
13. *Tile installations;*
14. *Lay-out and installation of electrical fixtures;*
15. *Lay-out, fabrications and installations of wooden cabinet frames and covers;*
16. *Painting works;*
17. *Clearing after work completion.*

Prepared and submitted by:

MICHAEL R. HAMAYBAY
Senior Agriculturist/OIC-Engineer III

Checked and reviewed by:

ENGR. NORMEL L. FAJARITO
Civil Engineer/ TWG-Infra Projects

Noted by:

TERESITA B. BAÑAS
Chief-Agricultural Support Services Div.

Recommending Approval:

MA. LOURDES C. ALMODIENTE, Dr. Dev.
OIC – SRA-LGAREC Station

Approved by:

ATTY. IGNACIO S. SANTILLANA
Deputy Administrator II, RDE

NAME OF PROJECT : REHABILITATION OF CRB#2(Phase 1)
LOCATION : LGAREC, LA CARLOTA CITY, NEG. OCC.
OWNER : SUGAR REGULATORY ADMINISTRATION
SUBJECT : TECHNICAL SPECIFICATIONS
ABC : Php 4,150,000.00
DURATION : 90 CALENDAR DAYS

I. GENERAL REQUIREMENTS

Scope of Work
This section shall include the mobilization and demobilization of Contractor's plant, equipment, materials and employee to the site; compliance with the contract requirements; this section shall include the furnishing of labor, materials, transportation, tools, supplies, plant, equipment and appurtenances to complete satisfactorily the construction of the proposed subproject.

Mobilization and Demobilization
The Contractor upon receipt of the Notice to Proceed shall immediately mobilize and transport his plant, equipment, materials and employees to the site and demobilize or remove the same at the completion of subproject.

Compliance with Contract Requirements
Control of on Site Construction
Prior to the start of any definable feature of the work, the Contractor must perform the necessary inspection to include as follows:
(1) Review of Contract Documents to make sure that material, equipment and products have been tested, submitted and approved.
(2) Physical examination of materials and equipment to assure its conformity to the specifications, plans, shop drawings and other data.
(3) As soon as the work has been started the Contractor shall conduct initial inspection to check and review the workmanship in compliance with the contract requirements for a particular item of work.
(4) The Contractor shall perform these inspections on a regular basis to assure continuing compliance with the contract requirements until completion of a particular type of work

Preconstruction Meetings
Prior to the start of construction, Contractor's material men or vendors whose presence is required, must attend preconstruction meetings as directed for the purpose of discussing the execution of work.

Progress Meetings
Progress meetings shall be called upon by the following for the purpose of discussing the implementation of the work.
(1) When called upon by the Engineer or the Procuring Entity or his representative for the purpose of discussing the execution of work. Contractor's material men or vendors whose presence is necessary or requested must attend progress meetings. Each of such meeting shall be held at the time and place designated by the Engineer or his representative.
Decisions and instructions agreed on these meetings shall be binding and conclusive on the contract. Minutes of this meeting shall be recorded and reasonable number of copies shall be furnished to the Contractor for distribution to various materials men and vendors involved.
(2) The Contractor may also call for a progress meeting for the purpose of coordinating, expediting and scheduling the work. In such meeting Contractor's material men or vendors, whose presence is necessary or requested are required to attend.

Progress Reports and Construction Logbook
The Contractor shall prepare and submit progress reports to the Engineer weekly and every 30 days for each month from the start of the sub-project's mobilization up to its completion, showing the work completed, work remaining to be done, the status of construction equipment, labor, and materials at the site and deliveries. Construction logbook shall be available showing actual works in daily basis including other information such as weather conditions, truck delivery, visitors, etc.

Shop Drawings
The Contractor shall submit and furnish shop drawings and samples accompanied with transmittal forms in accordance with the provision of the Conditions of Contract.
(1) Transmittal forms shall be filled out in typewritten or ink with no alterations or interlineations unless initialled and dated before submittal. Shop drawings shall be submitted as the same size as the contract drawings when practicable, but in no case, it shall exceed dimension of the contract drawings.

The Contractor shall make preliminary check of all shop drawings for compliance with the contract documents and he shall stamp each print with statement of compliance with the requirements. The contractor may authorize his supplier to deal directly with the Engineer with regard to shop drawings; however ultimate responsibility for accuracy and completeness in the submittal shall remain with the Contractor.
(2) The said shop drawing and transmittal shall be submitted at a time sufficiently early, to allow review of the same by the Engineer and to accommodate the rate of construction progress required under the contract. The contractor shall submit print copies of shop drawings with transmittal forms, and copies of brochures with transmittal forms, as required by the Engineer.
(3) Any shop drawings and samples, submitted not accompanied by transmittal forms or where all applicable items on the forms are not completed will be returned for re-submittal. The Engineer who will check and evaluate mentioned shop drawings will retain print copy for his file and return the rest to the Contractor with notation. Returned shop drawings marked "No Exceptions Taken" or "Make Corrections Noted", means formal revision of said drawings will not be required. If it is marked "Amend-Resubmit" or "Rejected-Resubmit", the Contractor shall revise said drawing and shall submit revised drawing to the Consultant.
(4) The Engineer shall process the submission and indicate the appropriate action on the shop drawings and transmittal forms. Construction of an item shall not be commenced before the Engineer has reviewed the pertinent shop drawing and returned it to the Contractor, marked as mentioned above. Revisions indicated on shop drawing shall be considered as changes necessary to meet the requirements of the contract drawings and specifications, and shall not be taken as the basis of claims for extra work. The Contractor shall have no claim for damages or extension of time due to any delay, resulting from having Contractors make the required revisions, unless review by the Engineer was delayed beyond reasonable period of time and unless the Contractor can establish that such delay in revision resulted in delay of the project. Re-submittal procedure shall follow the same procedure as the initial submittal.

Construction Photographs
The Contractor shall take photographs during the progress of the work once a month, all taken where directed by the Engineer. At the completion of one project final photographs shall be taken by the Contractor as directed by the Engineer. Two prints of each photograph shall be sent to the Procuring Entity and one print to the Engineer. The photographs shall be neatly labelled, dated, and identified in a little box in the lower right hand corner, showing the date of exposure, project name, location and direction of view.
All negatives and/or electronic copies shall be retained by the Contractor until completion of the work at which time they shall become the property of the Procuring Entity.

Cleaning-up
The Contractor shall at all times keep the construction area including storage area used by him free from accumulations of waste material or rubbish. Upon completion of construction, the Contractor Technical Specifications shall leave the work and premises in clean, neat and workmanlike conditions satisfactory to the Procuring Entity.

Documents to be submitted
The following documents shall be submitted by the Contractor to the Engineer and Procuring Entity prior to final payment and before issuance of final certificate of payment in accordance with the provisions of the Conditions of Contract.
(1) The guarantee required by the Conditions of Contract and any other extended guarantees stated in the technical sections of the specifications.
(2) A set of As-Built drawings shall be submitted showing accurate record of changes or deviations from the contract documents and the shop drawings indicating the work as actually installed. Records shall be arranged in order, in accordance with the various sections of the specifications and properly indexed with certifications of endorsement thereof, that each of the revised print of the drawings and specifications are complete and accurate. Prior to the application for final payment, and as a condition to its approval by the Engineer and the Procuring Entity, the Contractor shall deliver the records, drawings, and specifications.

II. EXCAVATION

All excavation shall be made to grade indicated in the drawings. The materials to be excavated shall include: any rock, earth and other materials of any nature description encountered in obtaining the indicated lines and grades. No fill or other surcharge loads shall be placed adjacent to any building or structure unless such building or structure is capable of withstanding the additional Loads caused by the fill surcharge.

4. Mixing Water

Water used in mixing concrete shall be clean and free from injurious amount of oils, acids, alkali, organic materials or other deleterious substances.

5. Admixture

All air-entraining admixtures if used shall conform to ASTM C-260. Water reducing admixtures, retarding admixtures, and water reducing and accelerating admixtures, if used, shall conform to the requirements of ASTM C-494.

C. Proportioning of Concrete Mixture

All concrete works for this project shall be undertaken in accordance with the standard specifications for plain and reinforced concrete as approved by the Government.

The following proportions of concrete shall be used for various parts of the building:

1. Footings and Columns.....Class A (1 :2 : 4)
2. Girders, Beams and Slabs.....Class A (1 :2 : 4)
3. Septic Vault Cover.....Class A (1 :2 : 4)
4. Concrete Hollow Block Footings.....Class B (1: 2 ½ : 5)
5. Concrete Slab on fill.....Class B (1: 2 ½ : 5)

Class A concrete shall be a mixture of 1 part cement, 2 parts fine aggregates and 4 parts coarse aggregates by volume, plus enough water to make the mixture into a pliable paste.

Class B concrete shall be a mixture of 1 part cement, 2 1/2 parts fine aggregates and 5 parts coarse aggregates by volume, plus enough water to make the mixture into a pliable paste.

Class C concrete shall be a mixture of 1 part cement, 3 parts fine aggregates and 6 parts coarse aggregates by volume, plus enough water to make the mixture into a pliable paste.

The fine aggregates for concrete shall consists of natural sand or of inert materials with similar characteristics, having hard, clean and durable grains, free from organic matters or loam.

The coarse aggregates for concrete shall be of crushed rock or durable qualities, or clean and hard gravel. Size of the coarse aggregates to be used shall vary from 200mm (3/4") to 400mm (1 ½").
Concrete slabs on fill shall be poured on a layer of hard gravel fill spread over well-compacted and thoroughly tampered earth fill. Each concrete slab course to be poured shall not be more than one meter wide, and each course shall be poured alternatively to the indicated floor finishes.

D. Steel Reinforcing Bars

Steel reinforcing bars to be used for this project shall consists of standard deformed structural bars meeting ASTM A-305 specifications.

The steel reinforcements for concrete shall be formed accurately according to sizes of the columns, beams, girders, footings, slab, etc., where they are to be used. They shall be tied together each bar intersection with gauge no. 16 G.I. tie wire or by welding and it shall conform with ASTM A-82.

No steel bars shall be installed unless it is free from rust, scale or other coating which would destroy or reduce the bond with concrete. The reinforcement bars must be positioned such that there is space between the steel at the sides and bottom of the forms.

E. Forms

Forms shall conform to the shape, lines and dimensions shown on the drawings. They shall be substantial and designed to resist the pressure and weight of the concrete.

III. BACKFILLING AND COMPACTION

When the concrete poured on the foundations has hardened and can already withstand the pressure resulting from fills, the materials removed from excavations shall be used for backfilling them. The fills and backfills shall be placed in layers not more than 150mm (6") in thickness. Each succeeding layer shall be thoroughly compacted by wetting, tamping and rolling.

IV. PLAIN AND REINFORCED CONCRETE

A. General Requirements

1. Acronyms

The following acronyms for applicable standards/publications are referred to in this specification:

a. ASTM – American Society for Testing Materials
b. ACI – American Concrete Institute
c. AWS – American Welding Society
d. AISC – American Institute of Steel Construction

2. Standard Specifications and Codes

The work covered by this Section unless otherwise specified or detailed, shall be governed by the Building Code requirements for Reinforced Concrete (ACI – 318), Standard Code for the Arc and Gas Welding Society. The latest edition of all standard specification or codes will be used.

3. Coordination

The concrete work shall coordinate with the work of other trades to allow reasonable time to set sleeves, inserts and other accessories which must be in position before concrete bases.

4. Workmanship

The Contractor shall be responsible for any additional cost which may result from concrete surfaces which are not finished to the required profile or elevation.

5. Samples

The Contractor shall submit samples of cement and aggregates proposed for use in concrete work approval, enumerating names, sources and description of materials.

B. Materials Requirements

1. Portland Cement

a. Portland cement shall conform to the requirements of ASTM C-150 Type for normal Portland cement; Type III for High Early Strength Portland Cement. Cement shall be any standard commercial brand in 40 kilograms per bag.

2. Fine Aggregates

Sand shall be clean, hard, coarse river sand or crushed sand free from injurious amount of clay loam and vegetable matter and shall conform to ASTM C-33 or C-330.

3. Coarse Aggregates

Gravel shall be river run gravel or broken stones. The maximum size shall be 1/5 of the nearest dimension between sides of forms of the concrete, or ¾ of the minimum clear spacing between reinforcing bars, between rebars and forms whichever is smaller.

Forms shall be properly tied and braced and shored so as to maintain their position and shape. Forms shall be sufficiently tight and strong to prevent leakage.

Removal of forms or shoring is subject to approval by the Engineer and under no circumstances shall bottom form and shoring be removed until after the members have acquired sufficient strength to support their weight and the load thereon. Forms shall remain in place for a minimum time as follows:

Foundation.....1 days
Walls.....2 days
Beams and suspended slabs.....14 days

V. MASONRY

The work covered by this item shall include the following:

1. Furnishing of all necessary materials, tools and equipment, and labor necessary to complete the execution of the concrete masonry work as shown on the drawings and herein specified.

2. All preparation for masonry works necessary to receive and adjoin other work, including provision for inserts and attachments as noted in the plans and specifications which shall be installed under the terms of this work.

3. Furnishing of all reinforcing steel for concrete masonry work and their placement including those not provided for under their section but necessary for prosecution of the work.

4. Arranging for the necessary storage space and protection for materials at the job site.

5. Providing assistance and facilities for all inspections by the Owner or his authorized representative as required in the course of execution of the work.

6. Arranging for furnishing test specimens and samples of materials as may be required.

Material Requirements

The following materials to be used under this section of the specifications shall conform to the masonry standards as indicated:

1. Cement to conform with ASTM C-150

2. Sand or fine aggregates shall be clear, sharp and well graded and free from injurious amount of dust, lumps, shale, alkali, surface coatings and organic matter.

3. Lime: Hydrated lime shall conform with ASTM C-207.

4. Quick lime shall conform with ASTM C-5 specifications. Quicklime shall be slaked and then screened through a 16 mesh sleeve.

Mortar and grout

All cells of concrete hollow blocks to be laid shall be filled with cement mortar mixture of 1 part cement and 3 parts sand, by volume. The horizontal joints between units shall be provided with 1:3 cement mortar mix at least 10mm thick.

Concrete Hollow block size

Walls.....4" X 8" X 16"

Reinforcing steels

1. Minimum requirements for deformed steel bars shall conform to ASTM A-305.
2. Wire reinforcement shall also conform with ASTM A-82.

3. Reinforcement shall be clean and free from loose, rust, scales and any coating that will reduce bond.

4. Schedule of CHB reinforcement shall be as follows:

Block Thickness mm	Horizontal Reinforcement	Vertical Reinforcement
100	10mmØ @ 600mm o.c.	10mmØ @ 600mm o.c.

Plastering

The Contractor shall furnish all cement plaster materials, labor and tools and equipment required in undertaking cement plaster finish as shown on the plans and in accordance with this specification.

Cement plaster finish shall be true to details and plumbed. Finish surface have no visible junction marks where one day's work adjoins the other.

Cement plaster finish shall not be applied directly to the concrete or masonry surface that been coated with bituminous compound and surface that had been painted or previously plastered.

VI. ELECTRICAL WORKS

All electrical works shall conform to all the requirements of the Philippine Electrical Code and with the rules and regulations of the local utility company. The contractor/supplier must replace and add electrical fixtures as shown in the engineering drawing.

VII. ROOF AND ROOF FRAMING

All materials to be used must be standard and shall follow the indicated specifications in the drawing and program of works and or as directed by the supervising engineer.

VIII. CEILING WORKS

All materials to be used must be standard and shall embark the specification listed in the drawing and program of works.

IX. PLUMBING WORKS

All plumbing works shall conform to all the requirements of the Plumbing Code of the Philippines and with the rules and regulations of the local utility company.

X. TILING WORKS

The tiles to be used shall be 600mm x 600 mm ceramic tiles which will be installed at a specified
area of the building/laboratory.

XI. DOORS AND WINDOWS

A. DOOR

1. Glass Door, double, swing, aluminum farmed, tempered, 1.7m x 2.1m x 6mm thick with complete accessories
2. Glass Door, swing, aluminum farmed, tempered, 1.0m x 2.27m x 6mm thick with complete accessories
3. Glass Door, swing, tempered, 1.0m x 2.10m x 6mm thick with complete accessories
4. Glass Door, swing, tempered, 0.9m x 2.0m x 6mm thick with complete accessories
5. Panel Door, hard wood, 0.95m x 2.1m with complete accessories
6. Flush Door, 0.8m x 2.05m with complete accessories
7. Flush Door, 0.8m x 2.10m with complete accessories
8. Flush Door, 0.83m x 2.10m with complete accessories

9. Flush Door, 0.95m x 2.05m with complete accessories
10. Flush Door, 0.8m x 1.6m with complete accessories
11. Flush Door, double, 1.42m x 2.3m with complete accessories

B. WINDOWS

1. Glass Window, sliding, tempered, 2.8m x 1.2m
2. Glass Window, sliding, tempered, 1.2m x 1.2m
3. Glass Window, sliding, tempered, 1.8m x 0.6m
4. Glass Window, sliding, tempered, 0.4m x 0.4m

All Glass thickness shall be at a minimum 6mm.

Prepared and submitted by:

MICHAEL R. HAMAYBAY
Senior Agriculturist/OIC-Engineer III

Checked and reviewed by:

ENGR. NORMEL L. FAJARITO
Civil Engineer, TWG-Infra Projects

Noted by:

TERESITA B. BAÑAS
Chief, Agricultural Support Services Div.

Recommending Approval:

MA. LOURDES C. ALMODIENTE, Dr. Dev.
OIC – SRA-LGAREC Station

Approved by:

ATTY. IGNACIO S. SANTILLANA
Deputy Administrator II, RDE

Lot C. Rehabilitation of Crop Research Building No.3 (Phase 2)

NAME OF PROJECT	***: REHABILITATION OF CRB#3(Phase 2)***
LOCATION	***: LGAREC, LA CARLOTA, NEGROS OCCIDENTAL***
OWNER	***: SUGAR REGULATORY ADMINISTRATION***
ABC	***: PHP 4,000,000.00***
DURATION	***: 90 CALENDAR DAYS***

SCOPE OF WORK

1. *Mobilization and Demobilization;*
2. *Clearing, chipping, removal and demolition of existing concrete gutter;*
3. *Removal of ceiling frames and cover/panels;*
4. *Pull-out/removal of roof sheets and electrical fixtures(wires, lamps, junction boxes, utility boxes and others that were included in the plan) and wooden structural frameworks;*
5. *Demolitions of wooden wall partitions at micro-laboratory;*
6. *Concrete chipping, clearing for concrete gutter installation;*
7. *Concrete gutter and parapet walls, wall partitions lay-out, fabrication of forms, rebar installation, concrete pouring and curing;*
8. *Fabrication of scaffoldings and other supports;*
9. *Lay-out, fabrication and installation of steel trusses, purlins, rafters, and other roof framing members applied with metal primer;*
10. *Remove and replace downspout and other waterline fixtures with complete fittings;*
11. *Lay-out and installations of roofs, wall flashing, ridge roll and other bended materials;*
12. *Lay-out and installation of ceiling frames and ceiling cover;*
13. *Lay-out and installations of glass doors and*
14. *Lay-out and installation of electrical fixtures;*
15. *Lay-out, fabrications and installations of wooden cabinet frames and covers;*
16. *Painting works;*
17. *Clearing after work completion.*

Prepared and submitted by:

MICHAEL R. HAMAYBAY
COS-Agricultural Biosystems Engineer I

Checked and reviewed by:

ENGR. NORMEL L. FAJARITO
Civil Engineer, TWG-Infra Projects

Noted by:

TERESITA B. BAÑAS
Chief-Agricultural Support Services Div.

Recommending Approval:

MA. LOURDES C. ALMODIENTE, Dr. Dev.
OIC – SRA-LGAREC Station

Approved by:

ATTY. IGNACIO S. SANTILLANA
Deputy Administrator II, RDE

NAME OF PROJECT : **REHABILITATION OF CRB#3(Phase 2)**
LOCATION : **LGAREC, LA CARLOTA CITY, NEG. OCC.**
OWNER : **SUGAR REGULATORY ADMINISTRATION**
SUBJECT : **TECHNICAL SPECIFICATIONS**
ABC : **Php 4,000,000.00**
DURATION : **90 CALENDAR DAYS**

I. GENERAL REQUIREMENTS

Scope of Work

This section shall include the mobilization and demobilization of Contractor's plant, equipment, materials and employee to the site; compliance with the contract requirements; this section shall include the furnishing of labor, materials, transportation, tools, supplies, plant, equipment and appurtenances to complete satisfactorily the construction of the proposed subproject.

Mobilization and Demobilization

The Contractor upon receipt of the Notice to Proceed shall immediately mobilize and transport his plant, equipment, materials and employees to the site and demobilize or remove the same at the completion of subproject.

Compliance with Contract Requirements

Control of on Site Construction
Prior to the start of any definable feature of the work, the Contractor must perform the necessary inspection to include as follows:
(1) Review of Contract Documents to make sure that material, equipment and products have been tested, submitted and approved.
(2) Physical examination of materials and equipment to assure its conformity to the specifications, plans, shop drawings and other data.
(3) As soon as the work has been started the Contractor shall conduct initial inspection to check and review the workmanship in compliance with the contract requirements for a particular item of work.
(4) The Contractor shall perform these inspections on a regular basis to assure continuing compliance with the contract requirements until completion of a particular type of work

Preconstruction Meetings

Prior to the start of construction, Contractor's material men or vendors whose presence is required, must attend preconstruction meetings as directed for the purpose of discussing the execution of work.

Progress Meetings

Progress meetings shall be called upon by the following for the purpose of discussing the implementation of the work.
(1) When called upon by the Engineer or the Procuring Entity or his representative for the purpose of discussing the execution of work. Contractor's material men or vendors whose presence is necessary or requested must attend progress meetings. Each of such meeting shall be held at the time and place designated by the Engineer or his representative.
Decisions and instructions agreed on these meetings shall be binding and conclusive on the contract. Minutes of this meeting shall be recorded and reasonable number of copies shall be furnished to the Contractor for distribution to various materials men and vendors involved.
(2) The Contractor may also call for a progress meeting for the purpose of coordinating, expediting and scheduling the work. In such meeting Contractor's material men or vendors, whose presence is necessary or requested are required to attend.

Progress Reports and Construction Logbook

The Contractor shall prepare and submit progress reports to the Engineer weekly and every 30 days for each month from the start of the sub-project's mobilization up to its completion, showing the work completed, work remaining to be done, the status of construction equipment, labor, and materials at the site and deliveries. Construction logbook shall be available showing

actual works in daily basis including other information such as weather conditions, truck delivery, visitors, etc.

Shop Drawings

The Contractor shall submit and furnish shop drawings and samples accompanied with transmittal forms in accordance with the provision of the Conditions of Contract.

(1) Transmittal forms shall be filled out in typewritten or ink with no alterations or interlineations unless initialled and dated before submittal. Shop drawings shall be submitted as the same size as the contract drawings when practicable, but in no case, it shall exceed dimension of the contract drawings. The Contractor shall make preliminary check of all shop drawings for compliance with the contract documents and he shall stamp each print with statement of compliance with the requirements. The contractor may authorize his supplier to deal directly with the Engineer with regard to shop drawings; however ultimate responsibility for accuracy and completeness in the submittal shall remain with the Contractor.

(2) The said shop drawing and transmittal shall be submitted at a time sufficiently early, to allow review of the same by the Engineer and to accommodate the rate of construction progress required under the contract. The contractor shall submit print copies of shop drawings with transmittal forms, and copies of brochures with transmittal forms, as required by the Engineer.

(3) Any shop drawings and samples, submitted not accompanied by transmittal forms or where all applicable items on the forms are not completed will be returned for re-submittal. The Engineer who will check and evaluate mentioned shop drawings will retain print copy for his file and return the rest to the Contractor with notation. Returned shop drawings marked "No Exceptions Taken" or "Make Corrections Noted", means formal revision of said drawings will not be required. If it is marked "Amend-Resubmit" or "Rejected-Resubmit", the Contractor shall revise said drawing and shall submit revised drawing to the Consultant.

(4) The Engineer shall process the submission and indicate the appropriate action on the shop drawings and transmittal forms. Construction of an item shall not be commenced before the Engineer has reviewed the pertinent shop drawing and returned it to the Contractor, marked as mentioned above. Revisions indicated on shop drawing shall be considered as changes necessary to meet the requirements of the contract drawings and specifications, and shall not be taken as the basis of claims for extra work. The Contractor shall have no claim for damages or extension of time due to any delay, resulting from having Contractors make the required revisions, unless review by the Engineer was delayed beyond reasonable period of time and unless the Contractor can establish that such delay in revision resulted in delay of the project. Re-submittal procedure shall follow the same procedure as the initial submittal.

Construction Photographs

The Contractor shall take photographs during the progress of the work once a month, all taken where directed by the Engineer. At the completion of one project final photographs shall be taken by the Contractor as directed by the Engineer. Two prints of each photograph shall be sent to the Procuring Entity and one print to the Engineer. The photographs shall be neatly labelled, dated, and identified in a little box in the lower right hand corner, showing the date of exposure, project name, location and direction of view.

All negatives and/or electronic copies shall be retained by the Contractor until completion of the work at which time they shall become the property of the Procuring Entity.

Cleaning-up

The Contractor shall at all times keep the construction area including storage area used by him free from accumulations of waste material or rubbish. Upon completion of construction, the Contractor Technical Specifications shall leave the work and premises in clean, neat and workmanlike conditions satisfactory to the Procuring Entity.

Documents to be submitted

The following documents shall be submitted by the Contractor to the Engineer and Procuring Entity prior to final payment and before issuance of final certificate of payment in accordance with the provisions of the Conditions of Contract.

(1) The guarantee required by the Conditions of Contract and any other extended guarantees stated in the technical sections of the specifications.

(2) A set of As-Built drawings shall be submitted showing accurate record of changes or deviations from the contract documents and the shop drawings indicating the work as actually

installed. Records shall be arranged in order, in accordance with the various sections of the specifications and properly indexed with certifications of endorsement thereof, that each of the revised print of the drawings and specifications are complete and accurate. Prior to the application for final payment, and as a condition to its approval by the Engineer and the Procuring Entity, the Contractor shall deliver the records, drawings, and specifications.

II. EXCAVATION

All excavation shall be made to grade indicated in the drawings. The materials to be excavated shall include: any rock, earth and other materials of any nature description encountered in obtaining the indicated lines and grades. No fill or other surcharge loads shall be placed adjacent to any building or structure unless such building or structure is capable of withstanding the additional Loads caused by the fill surcharge.

III. BACKFILLING AND COMPACTION

When the concrete poured on the foundations has hardened and can already withstand the pressure resulting from fills, the materials removed from excavations shall be used for backfilling them. The fills and backfills shall be placed in layers not more than 150mm (6") in thickness. Each succeeding layer shall be thoroughly compacted by wetting, tamping and rolling.

IV. PLAIN AND REINFORCED CONCRETE

A. General Requirements

1. Acronyms

The following acronyms for applicable standards/publications are referred to in this specification:

a. ASTM – American Society for Testing Materials
b. ACI – American Concrete Institute
c. AWS – American Welding Society
d. AISC – American Institute of Steel Construction

2. Standard Specifications and Codes

The work covered by this Section unless otherwise specified or detailed, shall be governed by the Building Code requirements for Reinforced Concrete (ACI – 318), Standard Code for the Arc and Gas Welding Society. The latest edition of all standard specification or codes will be used.

3. Coordination

The concrete work shall coordinate with the work of other trades to allow reasonable time to set sleeves, inserts and other accessories which must be in position before concrete bases.

4. Workmanship

The Contractor shall be responsible for any additional cost which may result from concrete surfaces which are not finished to the required profile or elevation.

5. Samples

The Contractor shall submit samples of cement and aggregates proposed for use in concrete work approval, enumerating names, sources and description of materials.

B. Materials Requirements

1. Portland Cement

a. Portland cement shall conform to the requirements of ASTM C-150 Type for normal Portland cement; Type III for High Early Strength Portland Cement. Cement shall be any standard commercial brand in 40 kilograms per bag.

2. Fine Aggregates

Sand shall be clean, hard, coarse river sand or crushed sand free from injurious amount of clay loam and vegetable matter and shall conform to ASTM C-33 or C-330.

3. Coarse Aggregates

Gravel shall be river run gravel or broken stones. The maximum size shall be 1/5 of the nearest dimension between sides of forms of the concrete, or ¾ of the minimum clear spacing between reinforcing bars, between rebars and forms whichever is smaller.

4. Mixing Water

Water used in mixing concrete shall be clean and free from injurious amount of oils, acids, alkali, organic materials or other deleterious substances.

5. Admixture

All air-entraining admixtures if used shall conform to ASTM C-260. Water reducing admixtures, retarding admixtures, and water reducing and accelerating admixtures, if used, shall conform to the requirements of ASTM C-494.

C. Proportioning of Concrete Mixture

All concrete works for this project shall be undertaken in accordance with the standard specifications for plain and reinforced concrete as approved by the Government.

The following proportions of concrete shall be used for various parts of the building:

1. Footings and Columns.....Class A (1 :2 : 4)
2. Girders, Beams and Slabs.....Class A (1 :2 : 4)
3. Septic Vault Cover.....Class A (1 :2 : 4)
4. Concrete Hollow Block Footings.....Class B (1: 2 ½ : 5)
5. Concrete Slab on fill.....Class B (1: 2 ½ : 5)

Class A concrete shall be a mixture of 1 part cement, 2 parts fine aggregates and 4 parts coarse aggregates by volume, plus enough water to make the mixture into a pliable paste.

Class B concrete shall be a mixture of 1 part cement, 2 1/2 parts fine aggregates and 5 parts coarse aggregates by volume, plus enough water to make the mixture into a pliable paste.

Class C concrete shall be a mixture of 1 part cement, 3 parts fine aggregates and 6 parts coarse aggregates by volume, plus enough water to make the mixture into a pliable paste.

The fine aggregates for concrete shall consists of natural sand or of inert materials with similar characteristics, having hard, clean and durable grains, free from organic matters or loam.

6. Arranging for furnishing test specimens and samples of materials as may be required.

Material Requirements

The following materials to be used under this section of the specifications shall conform to the masonry standards as indicated:

1. Cement to conform with ASTM C-150

2. Sand or fine aggregates shall be clear, sharp and well graded and free from injurious amount of dust, lumps, shale, alkali, surface coatings and organic matter.

3. Lime: Hydrated lime shall conform with ASTM C-207.

4. Quick lime shall conform with ASTM C-5 specifications. Quicklime shall be slaked and then screened through a 16 mesh sleeve.

Mortar and grout

All cells of concrete hollow blocks to be laid shall be filled with cement mortar mixture of 1 part cement and 3 parts sand, by volume. The horizontal joints between units shall be provided with 1:3 cement mortar mix at least 10mm thick.

Concrete Hollow block size

Walls.....4" X 8" X 16"

Reinforcing steels

1. Minimum requirements for deformed steel bars shall conform to ASTM A-305.
2. Wire reinforcement shall also conform with ASTM A-82.

3. Reinforcement shall be clean and free from loose, rust, scales and any coating that will reduce bond.

4. Schedule of CHB reinforcement shall be as follows:

Block Thickness mm	Horizontal Reinforcement	Vertical Reinforcement
100	10mmØ @ 600mm o.c.	10mmØ @ 600mm o.c.

Plastering

The Contractor shall furnish all cement plaster materials, labor and tools and equipment required in undertaking cement plaster finish as shown on the plans and in accordance with this specification.

Cement plaster finish shall be true to details and plumbed. Finish surface have no visible junction marks where one day's work adjoins the other.

Cement plaster finish shall not be applied directly to the concrete or masonry surface that been coated with bituminous compound and surface that had been painted or previously plastered.

The coarse aggregates for concrete shall be of crushed rock or durable qualities, or clean and hard gravel. Size of the coarse aggregates to be used shall vary from 200mm (3/4") to 400mm (1 ½").
Concrete slabs on fill shall be poured on a layer of hard gravel fill spread over well-compacted and thoroughly tampered earth fill. Each concrete slab course to be poured shall not be more than one meter wide, and each course shall be poured alternatively to the indicated floor finishes.

D. Steel Reinforcing Bars

Steel reinforcing bars to be used for this project shall consists of standard deformed structural bars meeting ASTM A-305 specifications.

The steel reinforcements for concrete shall be formed accurately according to sizes of the columns, beams, girders, footings, slab, etc., where they are to be used. They shall be tied together each bar intersection with gauge no. 16 G.I. tie wire or by welding and it shall conform with ASTM A-82.

No steel bars shall be installed unless it is free from rust, scale or other coating which would destroy or reduce the bond with concrete. The reinforcement bars must be positioned such that there is space between the steel at the sides and bottom of the forms.

E. Forms

Forms shall conform to the shape, lines and dimensions shown on the drawings. They shall be substantial and designed to resist the pressure and weight of the concrete.

Forms shall be properly tied and braced and shored so as to maintain their position and shape. Forms shall be sufficiently tight and strong to prevent leakage.

Removal of forms or shoring is subject to approval by the Engineer and under no circumstances shall bottom form and shoring be removed until after the members have acquired sufficient strength to support their weight and the load thereon. Forms shall remain in place for a minimum time as follows:

Foundation.....1 days
Walls.....2 days
Beams and suspended slabs.....14 days

V. MASONRY

The work covered by this item shall include the following:

1. Furnishing of all necessary materials, tools and equipment, and labor necessary to complete the execution of the concrete masonry work as shown on the drawings and herein specified.

2. All preparation for masonry works necessary to receive and adjoin other work, including provision for inserts and attachments as noted in the plans and specifications which shall be installed under the terms of this work.

3. Furnishing of all reinforcing steel for concrete masonry work and their placement including those not provided for under their section but necessary for prosecution of the work.

4. Arranging for the necessary storage space and protection for materials at the job site.

5. Providing assistance and facilities for all inspections by the Owner or his authorized representative as required in the course of execution of the work.

VI. ELECTRICAL WORKS

All electrical works shall conform to all the requirements of the Philippine Electrical Code and with the rules and regulations of the local utility company.

VII. ROOF AND ROOF FRAMING

All materials to be used must be standard and shall follow the indicated specifications in the drawing and program of works and or as directed by the supervising engineer.

VIII. CEILING WORKS

All materials to be used must be standard and shall embark the specification listed in the drawing and program of works.

IX. PLUMBING WORKS

All plumbing works shall conform to all the requirements of the Plumbing Code of the Philippines and with the rules and regulations of the local utility company.

X. DOORS AND WINDOWS

A. DOOR

Glass Door, aluminum frame, swing, tempered, 0.7m x 2.1m x 6mm thick with complete accessories

B. WINDOWS

1. Glass Window, fix, aluminum frame, tempered, 3.4m x 1.85m
2. Glass Window, fix, aluminum frame, tempered, 1m x 1.85m
3. Glass Window, fix, aluminum frame, tempered, 4.4m x 1.85m
4. Glass Window, fix, aluminum frame, tempered, 2.56m x 1.85m
5. Glass Window, fix, aluminum frame, tempered, 3.1m x 1.85m
6. Glass Window, fix, aluminum frame, tempered, 0.7m x 0.74m

All Glass thickness shall be 6mm.

Prepared and submitted by:

MICHAEL R. HAMAYBAY
Senior Agriculturist/OIC-Engineer III

Checked and reviewed by:

ENGR. NORMEL L. FAJARITO
Civil Engineer, TWG-Infra Projects

Noted by:

TERESITA B. BAÑAS
Chief, Agricultural Support Services Div.

Recommending Approval:

MA. LOURDES C. ALMODIENTE, Dr. Dev.
OIC – SRA-LGAREC Station

Approved by:

ATTY. IGNACIO S. SANTILLANA
Deputy Administrator II, RDE

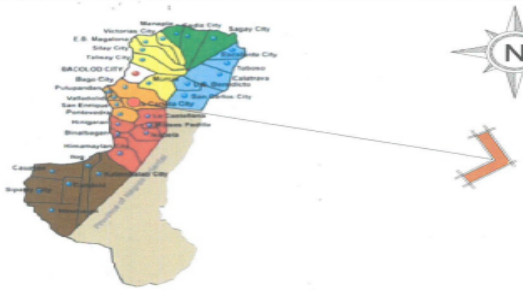
Additional Requirements:

Bidders are required to submit two (2) additional hard copies of the first and second components of their Bid/s.

Bidders are required to put tabs (document name) with proper labeling in all documents to be submitted with the same number as indicated in the Checklist of Technical and Financial Document, in order to facilitate efficiency in evaluating all the documents.

Section VII. Drawings

LOT A. Rehabilitation of Beneficial Micro-organism Building (BMO)



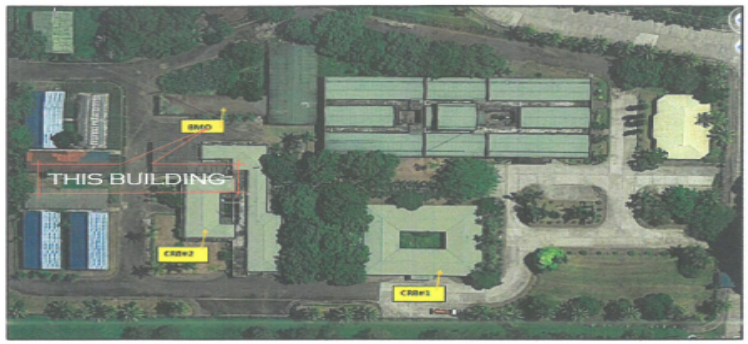
NEGROS ISLAND MAP

NOT DRAWN TO SCALE

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS (EL.) ARE IN METERS.
3. ALL PARTS OF THE STRUCTURE UNLESS OTHERWISE SPECIFIED SHALL BE CONCRETE HAVING MINIMUM OF COMPRESSIVE STRENGTH OF 211 KSCM AT 28 DAYS.
4. REINFORCING BARS SHALL BE DEFORMED BILLET STEEL OF INTERMEDIATE GRADE (ASTM 615 OR PS 275 GRADE 40).
5. THE MAXIMUM SIZE OF AGGREGATES FOR CAST-IN PLACE CONCRETE SHALL NOT BE LARGER THAN 1/5 OF THE LEAST DIMENSIONS OF THE MEMBER NOR LARGER THAN 40MM. FOR PRECAST CONCRETE SHALL NOT BE LARGER THAN $\frac{1}{3}$ OF THE LEAST DIMENSION OF THE MEMBER NOR LARGER THAN 20MM.
6. CONCRETE PROTECTION FOR REINFORCEMENT SHALL NOT BE LESS THE FOLLOWING.
   A.) FROM THE GROUND CONTACT SURFACE OF CONCRETE FOOTINGS AND OTHER MEMBERS IN WHICH CONCRETE IS DEPOSITED AGAINST THE GROUND _____7.5CM.
   B.) FROM CONCRETE SURFACE EXPOSED TO WATER FLOW OR BE IN CONTACT WITH THE GROUND AFTER REMOVAL OF FORMS.
7. FOR BARS LARGER THAN 16MM Ø _____5CM.
8. FOR BARS 16MM Ø AND SMALLER Ø _____4CM.
9. LAPPING OF BARS SHALL BE 24 BAR Ø FOR DEFORMED BARS AND 48 BAR Ø FOR PLAIN BARS SPLICES SHALL BE STAGGERED.
10. ALL BARS NOT OTHERWISE SPECIFIED SHALL BE 10MM Ø SPACED 30CM O.C. OR 12MM Ø SPACED 45CM ON CENTER.
11. MINIMUM DISTANCE BETWEEN PARALLEL BARS SHALL BE 5CM.
12. DEFLECT REINFORCEMENTS AROUND GROUT PROJECT POCKETS AND RECESSES WHERE REQUIRED.
13. ALL EXPOSE EDGES SHALL BE ROUNDED OR CHAMBERED.
14. ALL BARS WHEN REQUIRED SHALL BE BENT COLD. HOOKS OR BENDS SHOWN IN THE DRAWING SHALL HAVE THE FOLLOWING DIMENSIONS.

R = 2 $\frac{1}{2}$ BAR Ø FOR 10MM Ø OR 16MM Ø BARS
R = 3 BAR Ø FOR 20MM Ø 22MM Ø OR 25MM Ø BARS



VICINITY MAP

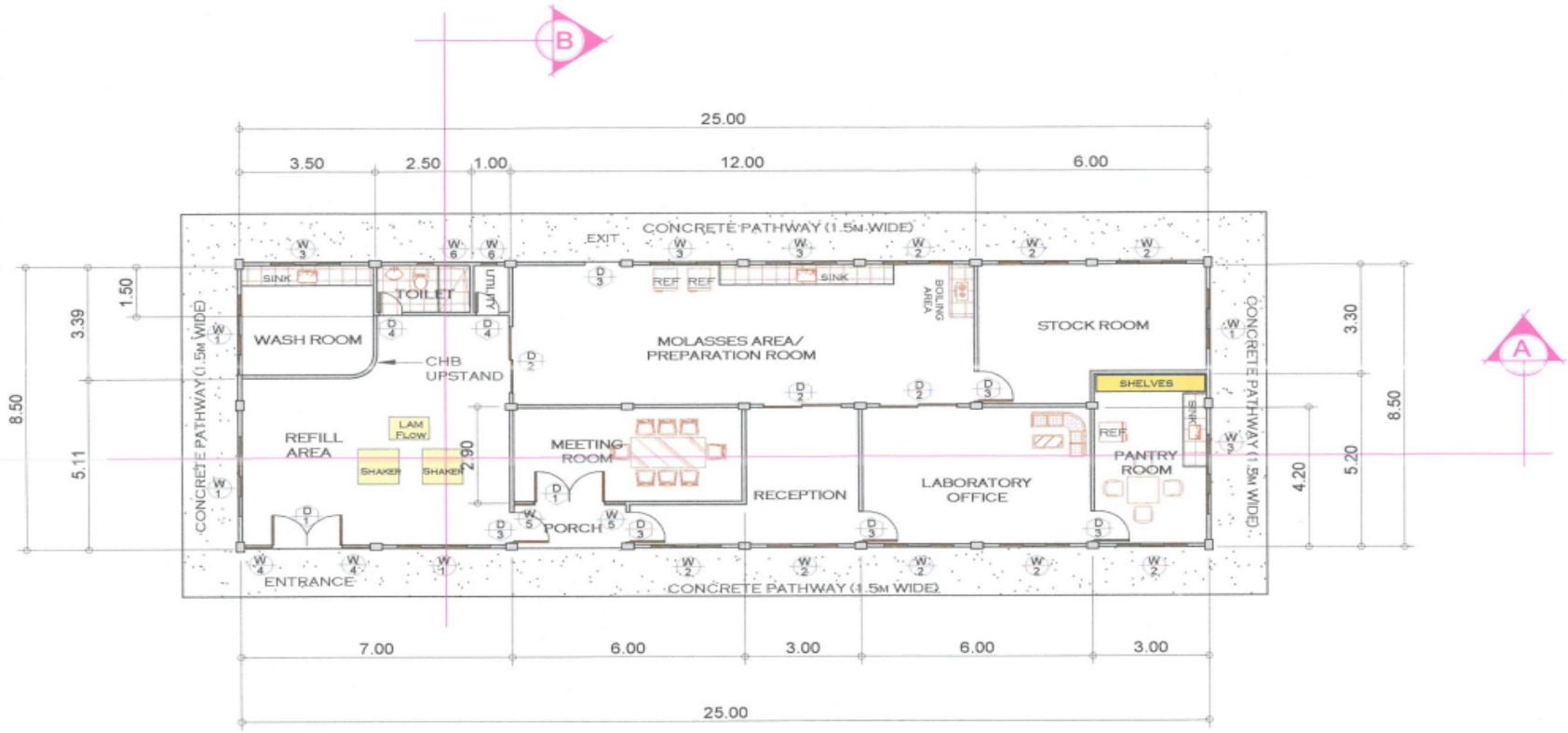
NOT DRAWN TO SCALE

PERSPECTIVE VIEW

10/10	
PLUMBING LAYOUT	
LEGEND	
SEPTIC VAULT DETAIL	
CATCH BASIN DETAIL	
SPECIFICATIONS	

TABLE OF CONTENT

Project Owner / Implementing Agency	Project Title:	Prepared & Submitted by:	Checked & Reviewed by:	Noted by:	Recommending Approval:	Approved By:	Sheet #:
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF BENEFICIAL MICRO-ORGANISM BUILDING (BMO) LOCATION: SRA-LGAREC, LA GRANJA, LA CARLOTA CITY, NEGROS OCCIDENTAL	MICHAEL R. HAMAYBAY Senior Agriculturist (OIC-Engineer II)	ENGR. NORMEL L. FAJARITO Civil Engineer/TWG-Infrastructure Projects	MA. THERESA D. ALEJANDRINO SSRS/ In-Charge BMO Laboratory	MA. LOURDES C. ALMODIENTE, Dr. Dev. OIC-SRA-LGAREC Station	ATTY. IGNACIO S. SANTILLANA Deputy Administrator II, RDE	1/10



FLOOR PLAN

SCALE 1:120MTS

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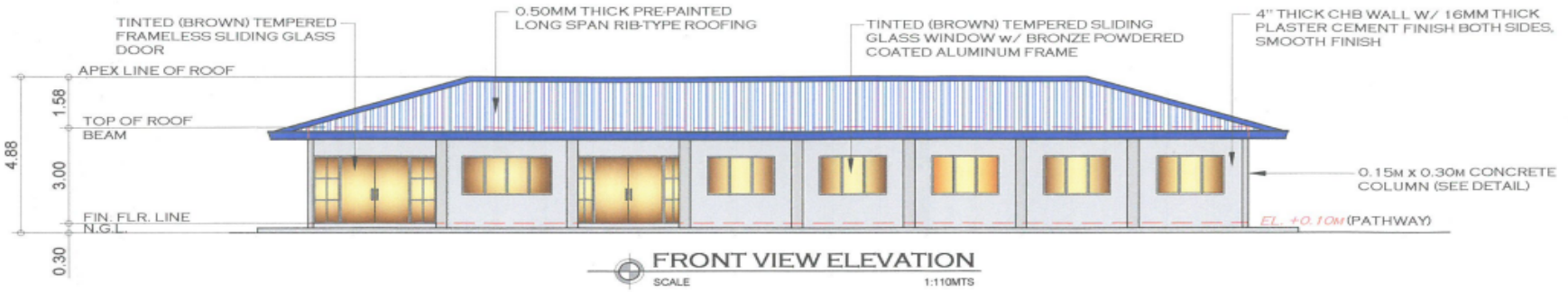
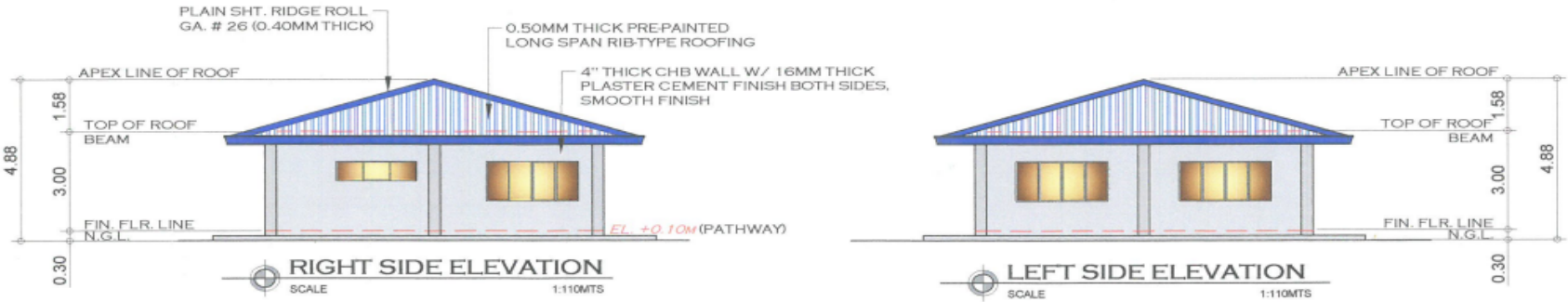


FRONT VIEW ELEVATION

SCALE 1:110MTS

REAR VIEW ELEVATION

SCALE 1:110MTS



RIGHT SIDE ELEVATION

SCALE 1:110MTS

LEFT SIDE ELEVATION

SCALE 1:110MTS

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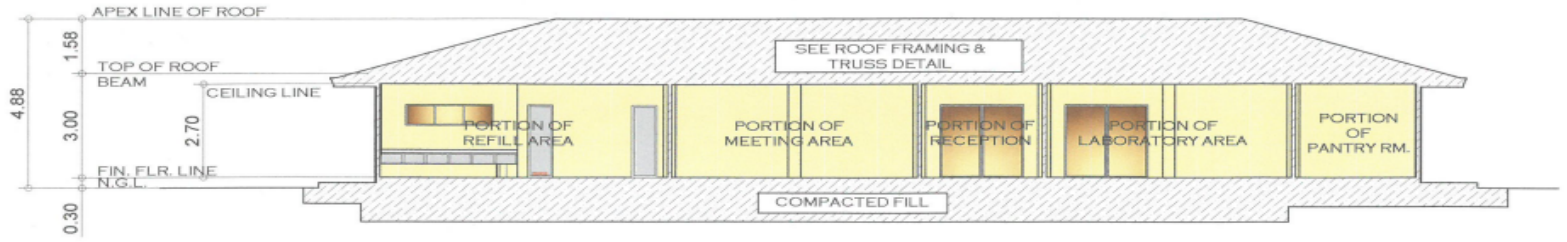
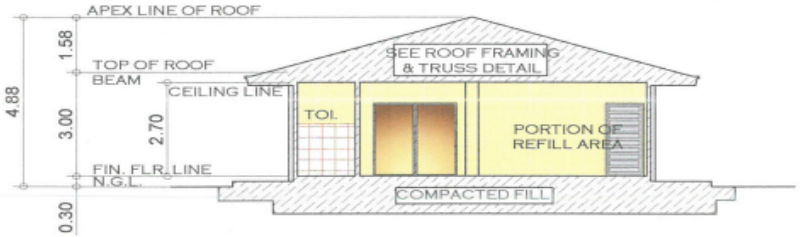


LONGITUDINAL SECTION THRU 'A'

SCALE 1:110MTS



CROSS SECTION THRU 'B'

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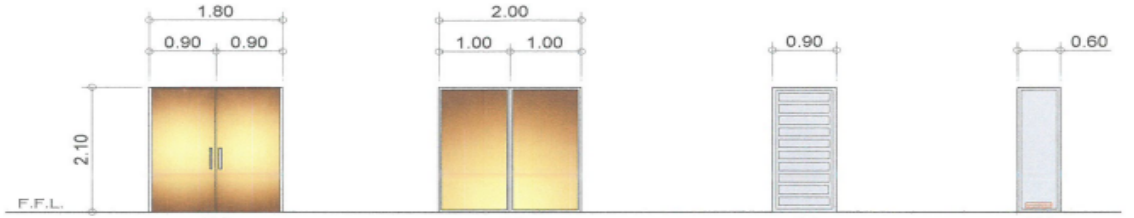

TYPE: TINTED (BROWN) TEMPERED FRAMELESS SWING GLASS DOOR
UNIT: 1 SET

TYPE: TINTED (BROWN) TEMPERED SLIDING GLASS DOOR
UNIT: 3 SETS

TYPE: HARD WOOD DOOR SWING TYPE
UNIT: 6 SETS

TYPE: uPVC FLUSH DOOR SWING TYPE
UNIT: 2 SETS

TYPE: TINTED (BROWN) TEMPERED SLIDING GLASS WINDOW w/ BRONZE POWDERED COATED ALUMINUM FRAME
UNIT: 4 SETS

TYPE: TINTED (BROWN) TEMPERED SLIDING GLASS WINDOW w/ BRONZE POWDERED COATED ALUMINUM FRAME
UNIT: 8 SETS

TYPE: TINTED (BROWN) TEMPERED SLIDING GLASS WINDOW w/ BRONZE POWDERED COATED ALUMINUM FRAME
UNIT: 4 SETS

TYPE: TINTED (BROWN) TEMPERED FIXED GLASS WINDOW w/ BRONZE POWDERED COATED ALUMINUM FRAME
UNIT: 2 SETS

TYPE: TINTED (BROWN) TEMPERED FIXED GLASS WINDOW w/ BRONZE POWDERED COATED ALUMINUM FRAME
UNIT: 2 SETS

TYPE: TINTED (BROWN) TEMPERED AWNING GLASS WINDOW w/ BRONZE POWDERED COATED ALUMINUM FRAME
UNIT: 2 SETS

SCHEDULE OF DOORS & WINDOWS

SCALE 1:70MTS

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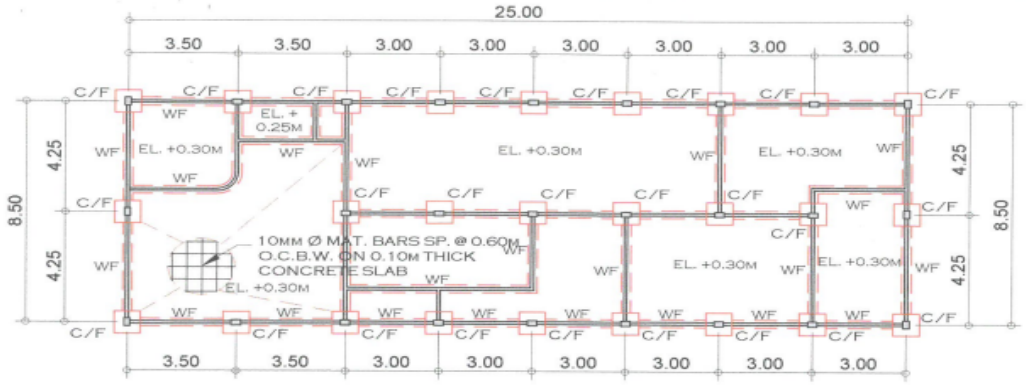
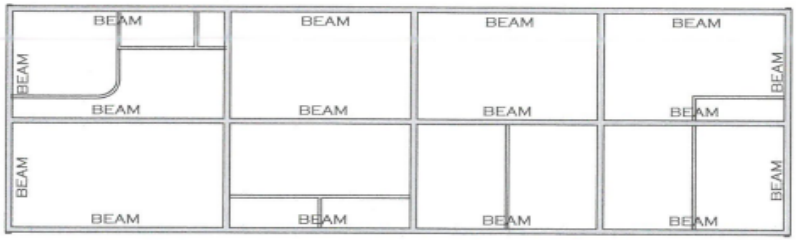


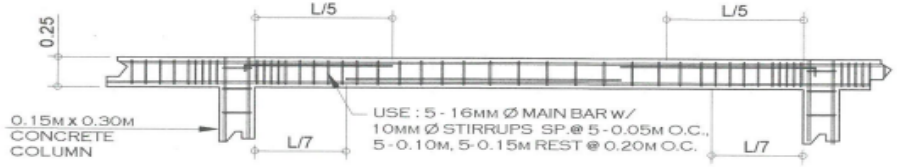
FOUNDATION PLAN

SCALE 1:160MTS



ROOF BEAM LAYOUT

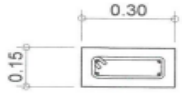
SCALE 1:160MTS



TYPICAL CUT-OFF POINTS

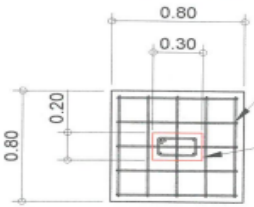
SCALE 1:35MTS

USE: 4-16MM Ø MAIN BAR W/ 10MM Ø TIES SP. @ 5-0.05, 5 - 0.10M, 5-@ 0.15M, REST @ 0.20M O.C.

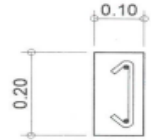


ENLARGED DET. OF 'A'

SCALE 1:120MTS

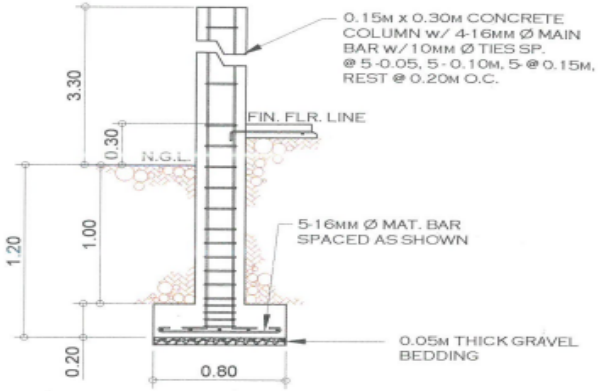


USE: 2 - 12MM Ø MAIN BARS W/ 10MM Ø STIRRUPS SP. @ 0.20M O.C.



LINTEL BEAM DET.

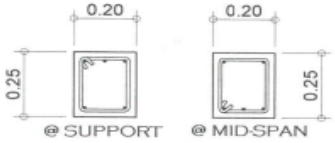
SCALE 1:10MTS



COLUMN / FOOTING DET.

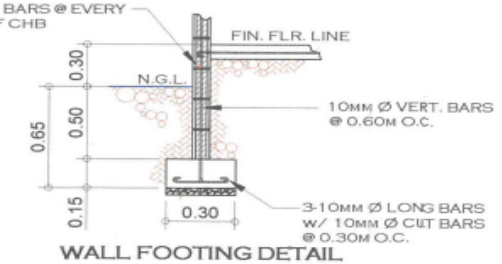
SCALE 1:30MTS

USE : 5 - 16MM Ø MAIN BAR W/ 10MM Ø STIRRUPS SP.@ 5 - 0.05M O.C., 5 - 0.10M, 5 - 0.15M REST @ 0.20M O.C.



BEAM DETAIL

SCALE 1:10MTS



WALL FOOTING DETAIL

SCALE 1:10MTS

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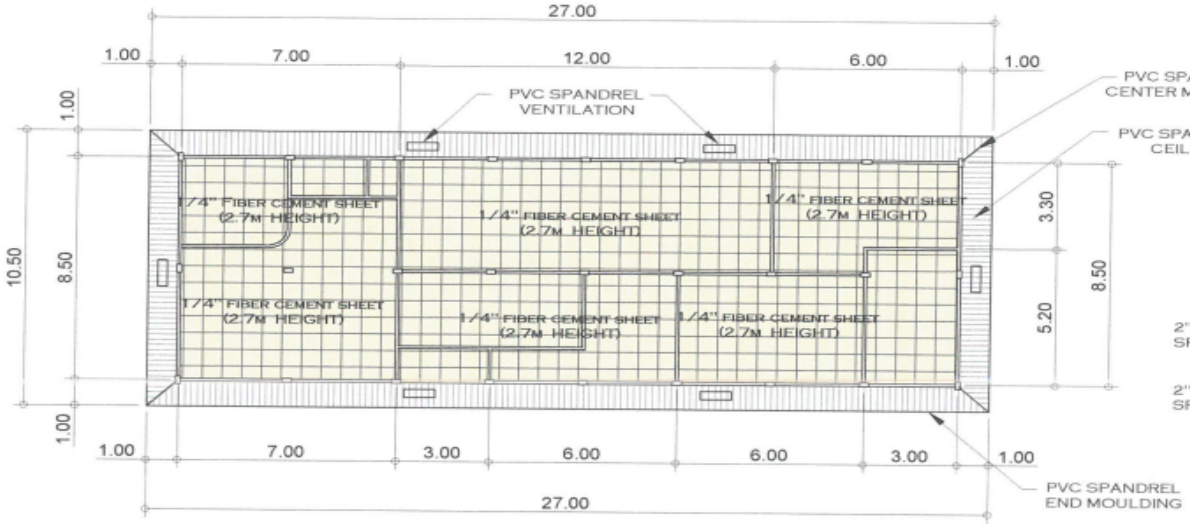
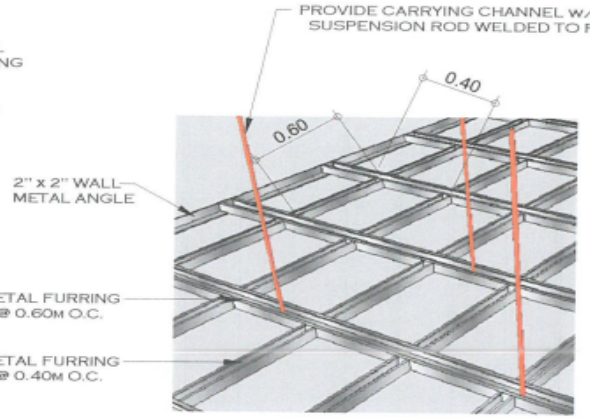
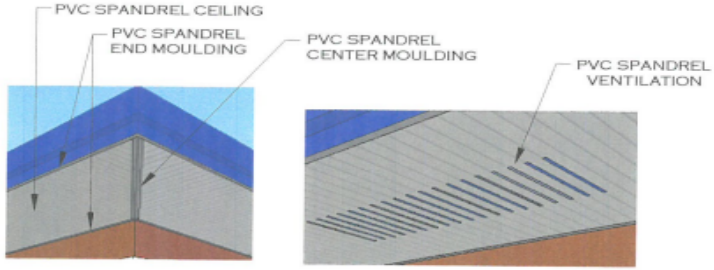


REFLECTED CEILING PLAN

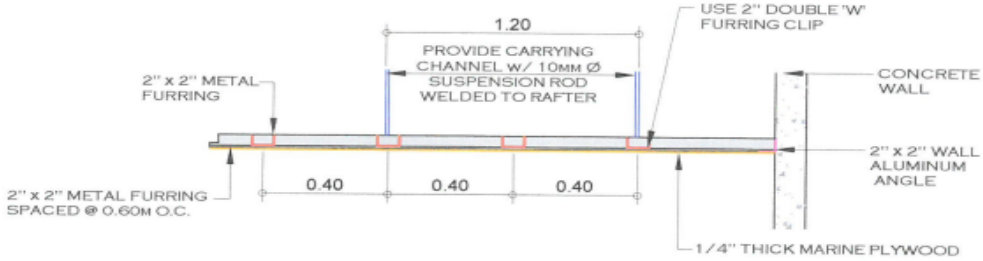
SCALE 1:160MTS



ISOMETRIC VIEW OF INTERIOR CEILING



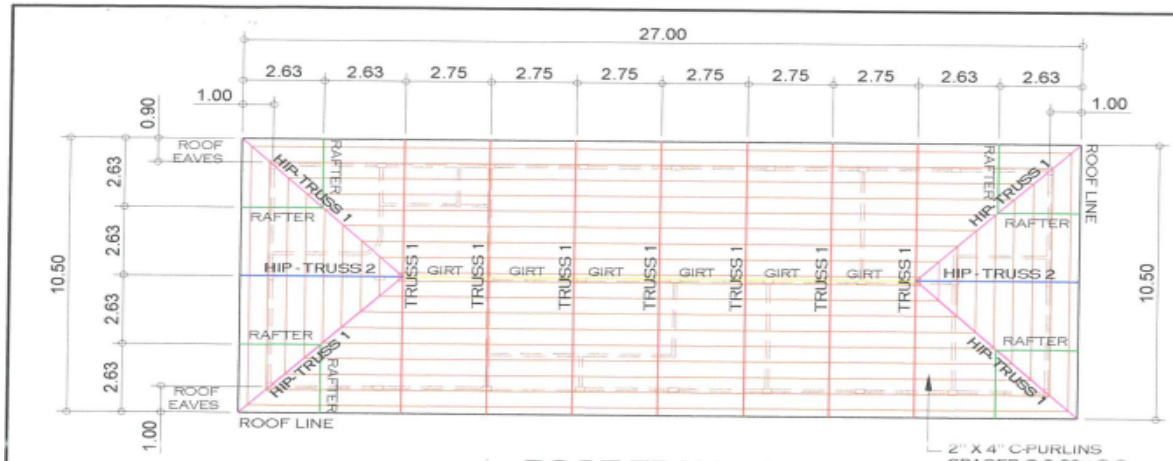
ISOMETRIC VIEW OF EXTERIOR CEILING



DETAIL OF THREADED ROD IN CONNECTION TO FURRING & CARRYING CHANNEL

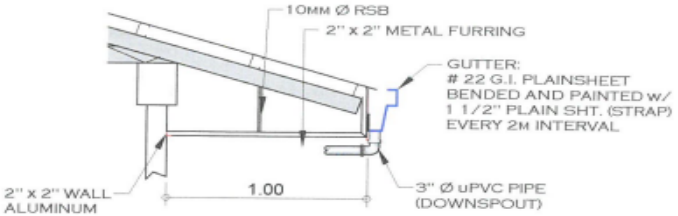
SCALE 1:15MTS

Project Owner / Implementing Agency	Project Title:	Prepared & Submitted by:	Checked & Reviewed by:	Noted by:	Recommending Approval:	Approved by:	Sheet #:
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF BENEFICIAL MICRO-ORGANISM BUILDING (BMO)	MICHAEL R. HAMAYBAY	ENGR. NORMEL L. FAJARITO	MA. THERESA D. ALEJANDRINO	MA. LOURDES C. ALMODIENTE, Dr. Dev.	ATTY. IGNACIO S. SANTILLANA	6/10
	LOCATION: SRA- LGAREC, LA GRANJA, LA CARLOTA CITY, NEGROS OCCIDENTAL	Senior Agriculturist /OIC-Engineer III	Civil Engineer/TWO-Infrastructure Projects	SSRS/ In-Charge BMO Laboratory	OIC-SRA-LGAREC Station	Deputy Administrator II, RDE	



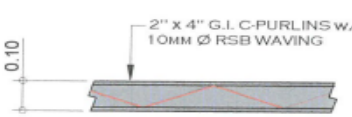
ROOF FRAMING DETAIL

SCALE 1:160MTS



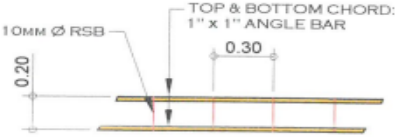
ROOF EAVES DET.

SCALE 1:75MTS



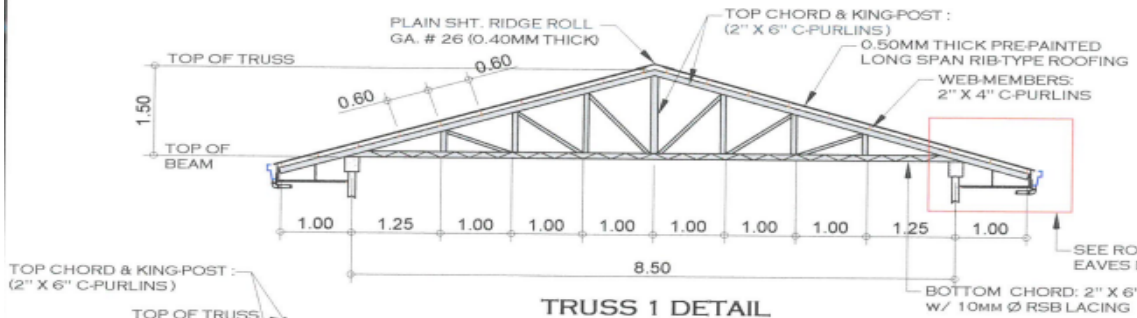
GIRT DETAIL

SCALE 1:10MTS



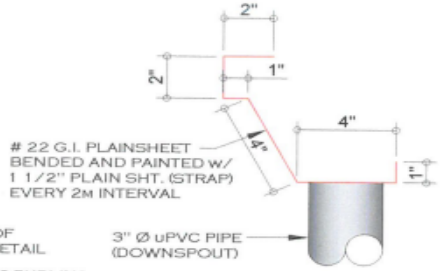
FASCIA FRAME DETAIL

SCALE 1:20MTS



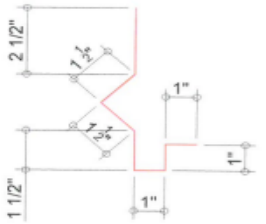
TRUSS 1 DETAIL

SCALE 1:70MTS



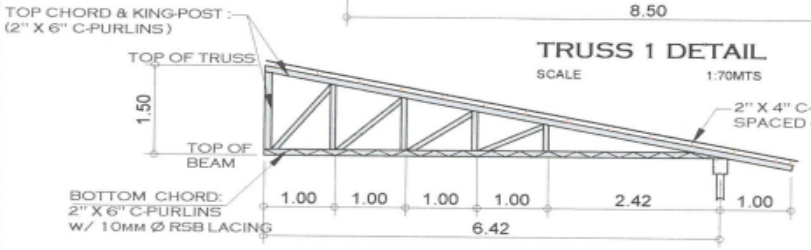
GUTTER DET.

SCALE 1:5MTS



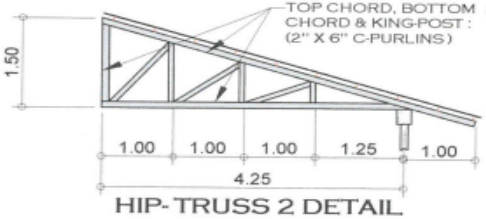
FASCIA FLASHING DET.

SCALE 1:4MTS



HIP-TRUSS 1 DETAIL

SCALE 1:70MTS



HIP-TRUSS 2 DETAIL

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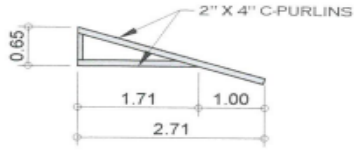

RAFTER DETAIL

SCALE 1:70MTS

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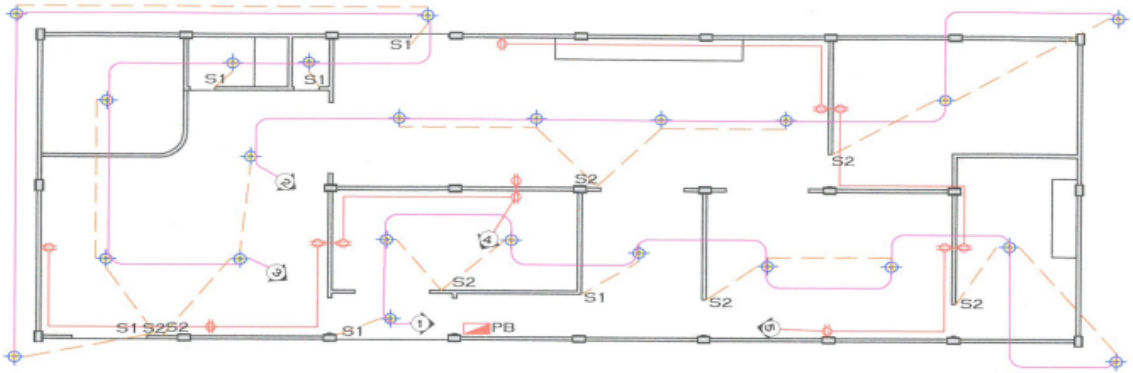


ELECTRICAL LAYOUT

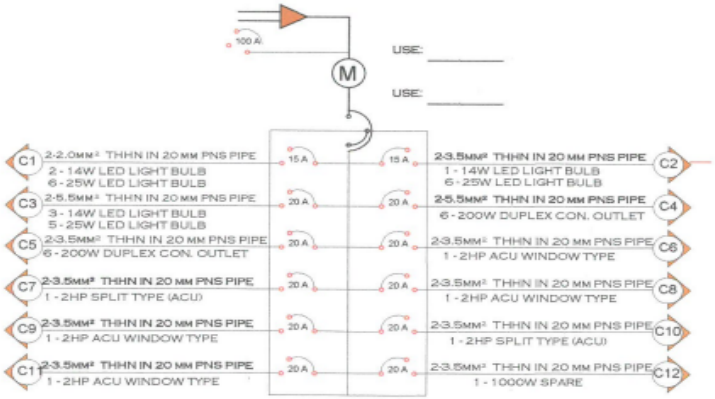
SCALE 1:110MTS

SCHEDULE OF LOADS

CKT NO.	DESCRIPTION	WATTS	VOLTS	AMPS	PROTECTION	SIZE OF WIRE
C-1	2 - 14W LED LIGHT BULB 6 - 25W LED LIGHT BULB	178	220	0.81	15 A	2-2.0MM² THHN IN 20 MM PNS PIPE
C-2	1 - 14W LED LIGHT BULB 6 - 25W LED LIGHT BULB	164	220	0.75	15 A	2-2.0MM² THHN IN 20 MM PNS PIPE
C-3	3 - 14W LED LIGHT BULB 5 - 25W LED LIGHT BULB	167	220	0.76	15 A	2-2.0MM² THHN IN 20 MM PNS PIPE
C-4	6 - 200W DUPLEX CON. OUTLET	1,200	220	5.45	20 A	2-5.5MM² THHN IN 20 MM PNS PIPE
C-5	6 - 200W DUPLEX CON. OUTLET	1,200	220	5.45	20 A	2-5.5MM² THHN IN 20 MM PNS PIPE
C-6	1 - 2HP ACU WINDOW TYPE	1,492	220	6.78	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
C-7	1 - 2HP SPLIT TYPE (ACU)	1,492	220	6.78	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
C-8	1 - 2HP ACU WINDOW TYPE	1,492	220	6.78	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
C-9	1 - 2HP ACU WINDOW TYPE	1,492	220	6.78	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
C-10	1 - 2HP SPLIT TYPE (ACU)	1,492	220	6.78	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
C-11	1 - 2HP ACU WINDOW TYPE	1,492	220	6.78	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
C-12	1 - 1000W SPARE	1,000	220	4.54	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
	TOTAL CONNECTED LOAD	12,861		58.44		

ELECTRICAL SPECIFICATIONS:

1. ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE. THE LAWS AND ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER COMPANY.
2. THE CONTRACTOR SHALL SECURE ALL PERMITS ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEERS FINAL CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETE WORK.
3. ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND INSTALLED IN APPLICATIONS FOR WHICH THEY ARE INTENDED.
4. LIGHTING, OUTLET, EQUIPMENT BRANCH CIRCUIT WITHOUT DESIGNATION SHALL BE 3-WIRE (1-GORUND, & 2- LIVE) 3.5 SQ.MM THHN + 2.0 SQ.MM THHN WIRE IN 20MM Ø RSC.
5. BOXES SHALL BE MADE OF CODE CAGE STEEL WITH ZINC CHROMATE PROTECTION
6. MOUNTING HEIGHTS FOR SWITCHES AND CONVENIENCE OUTLET SHALL BE 1.40M AND 0.40M RESPECTIVELY, UNLESS OTHERWISE INDICATED IN PLANS.
7. ALL RECEPTACLE OUTLETS SHALL BE PARALLEL SLOT, 3-PRONG, GROUNDING/ UNIVERSAL TYPE AND PROPERLY GROUNDED TO THE BOX BY MEANS OF GROUNDING LUGS.
8. VERIFY FROM THE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF THE LIGHTING FIXTURES AND WIRING DEVICES.
9. GROUNDING AND NEUTRAL WIRES SHALL BE TERMINATED AND LAID-OUT THRU ENTIRE LENGTH OF THE CONDUIT SYSTEM (FROM PANEL BOARD UP TO LOADS).
10. CONTRACTOR MAY USE A CONDUIT SUSPENSION SYSTEM EQUIVALENT TO WHAT IS DETAILED, HAVING THE FEATURES SHOWN ON THIS PLAN AND APPROVED IN ADVANCE BY THE ENGINEER.
11. PROVIDE A SAMPLE OF ALL MATERIALS AND SUPPORT SYSTEM TO BE KEPT ON THE JOB SITE FOR CONSTRUCTION GUIDE PURPOSES.
12. CONDUIT SUSPENSION SYSTEM SHALL BE INDEPENDENT OF ANY OTHER SUSPENSION SYSTEM.
13. NATURE OF WORK FOR SERVICE ENTRANCE SHALL BE DONE IN INTERMEDIATE METALLIC CONDUIT WITH PROPER BOXES, SUPPORTS AND FITTINGS OR AS PER LOCAL UTILITY COMPANY TO BE COORDINATED BY THE CONTRACTOR.
14. NATURE OF WORKS FOR LIGHTING AND POWER AND AUXILIARY SYSTEM SHALL BE DONE IN RIGID STEEL (RSC) CONDUIT WITH PROPER BOXES, SUPPORT AND FITTINGS.
15. UNLESS OTHERWISE SPECIFIED, PULL-BOXES OR JUNCTION BOXES SHALL BE PROVIDED WHENEVER REQUIRED AND NECESSARY, ALTHOUGH SUCH BOXES WHERE NOT INDICATED ON PLANS AND SHALL BE APPROVED FOR INTENDED LOCATIONS.
16. ALL WORKS HEREIN SHALL BE DONE UNDER THE DIRECT SUPERVISION FROM A DULY LICENSED , REGISTERED AND COMPETENT ELECTRICAL ENGINEER OR MASTER ELECTRICIAN.



LEGEND:

- SERVICE ENTRANCE
- M — KILOWATT HOUR METER
- PANEL BOARD
- CEILING LIGHT
- C1 — CIRCUIT HOME RUN
- FEEDER LINE
- SWITCH LINE
- CONVENIENCE OUTLET
- S1 — SINGLE GANG SWITCH
- S2 — TWO GANG SWITCH

SINGLE LINE DIAGRAM

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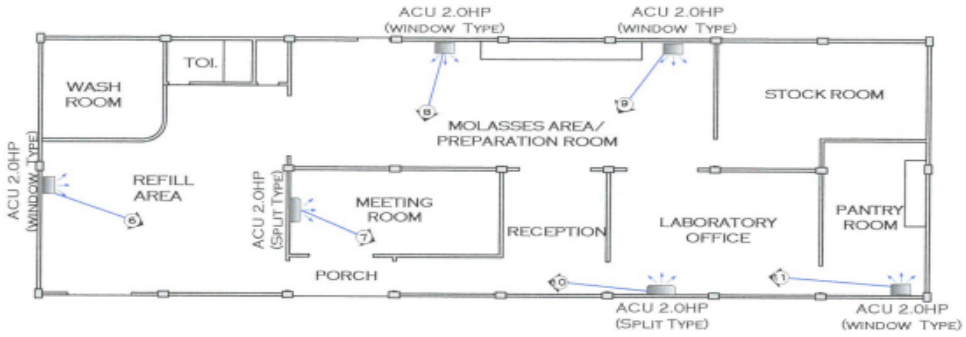


FLOOR PLAN

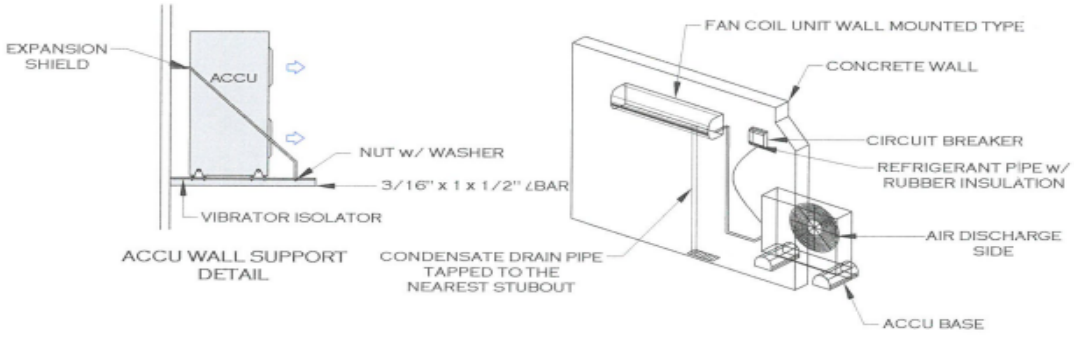
SCALE 1:150MTS

SPECIFICATIONS:

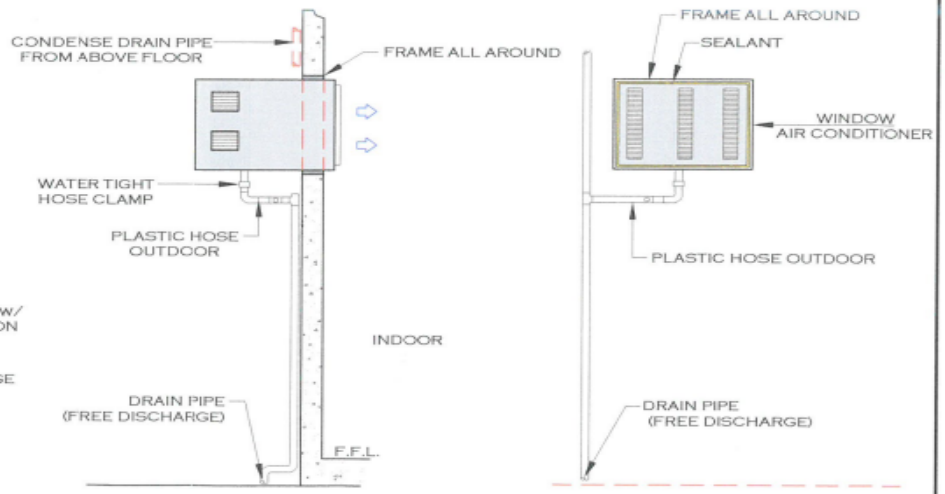
1. ALL EQUIPMENT SHALL BE INSTALLED IN APPROXIMATE LOCATION AS SHOWN ON DRAWINGS.
2. ALL EQUIPMENTS SHALL BE SET ON LEVEL REINFORCED CONCRETE FOUNDATION ATLEAST 150MM HIGHER THAN THE FLOOR LINE, IF APPLICABLE.
3. ALL EQUIPMENT SHALL BE MOUNTED ON OR SUPPORTED w/ VIBRATION INSULATION UNITS OR ASSEMBLIES AS SPECIFIED & OR AS SHOWN ON THE DRAWINGS.
4. INSTALLATION OF ALL WORKS SHALL BE IN NEAT & WORKMANLIKE MANNER IMPROPERLY SEAT WORKS OR FINISHED AS DETERMINED BY THE IN-CHARGE SHALL BE REMOVED AND REPLACED AT NO EXTRA COST.
5. ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND CLEAN.
6. ALL AIRCON GAP SHALL BE PROPERLY SEALED WITH APPROVED TYPE OF ELECTROSEALANT OR FIBER FOAM.
7. ALL AIRCON UNIT INSTALLATION SHOULD BE PROVIDED w/ APPROPRIATE BRACKETS AND TO BE ANCHORD PROPERLY AT CONCRETE.
8. ALL MECHANICAL ENGINEERS CODE, ASVE, ASHRAE STANDARD.
9. MECHANICAL CONTRACTORS SHALL ALWAYS OBSERVE & ORDERLINESS AT ALL TIMES.
10. MECHANICAL CONTRACTORS SHALL VERIFY SITE PRIOR TO ACTUAL INSTALLATION.
11. BRACKETS & SUPPORTS MUST BE PAINTED w/ DOUBLE COAT OF RUST PROTECTED PAINT.

SCHEDULE OF EQUIPMENTS

DESCRIPTION	POWER (HP)	No. OF UNIT	BTU/ HR.	VOLTAGE	RATED CURRENT	PHASE	PREQ	PIPELINES SL	PIPELINES LL
Split Type	2.00	2							
Window Type	2.00	4							



SPLIT TYPE DETAIL



WINDOW TYPE DETAIL

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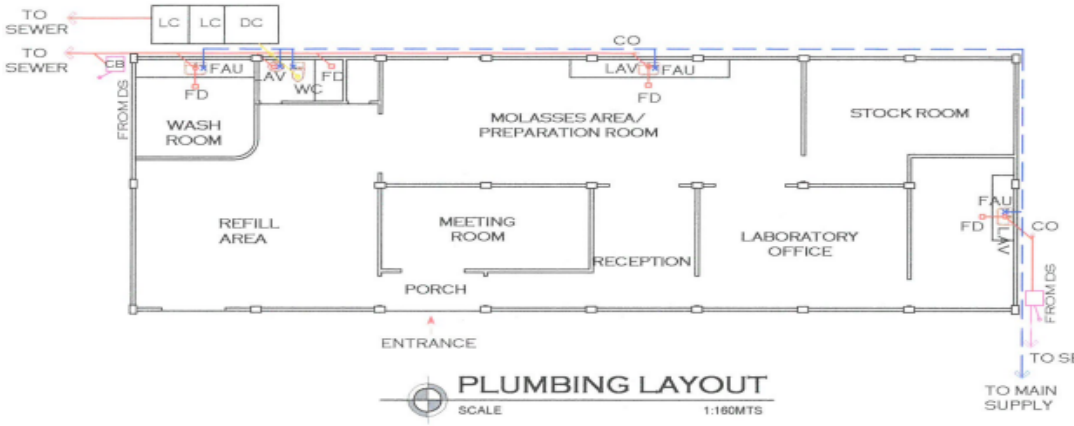
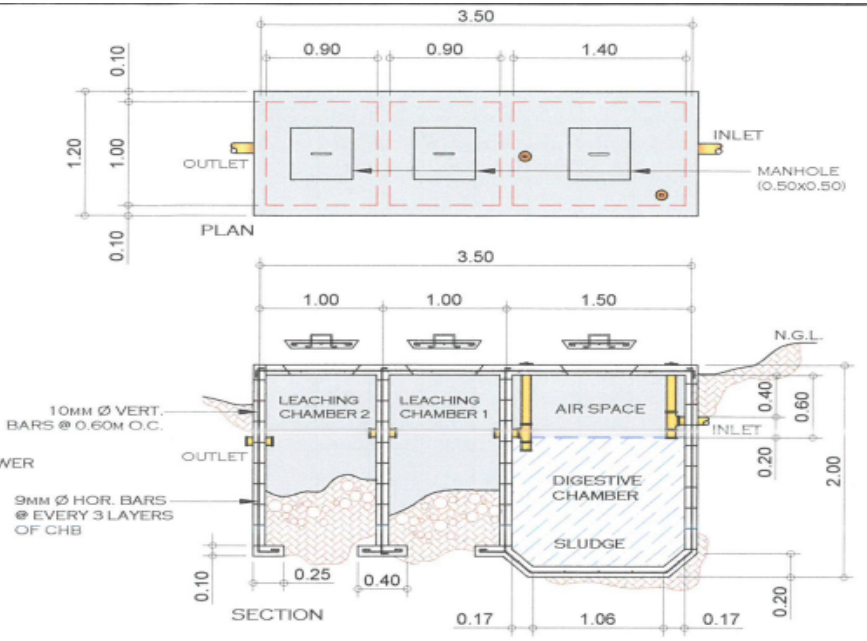


PLUMBING LAYOUT
SCALE 1:160MTS



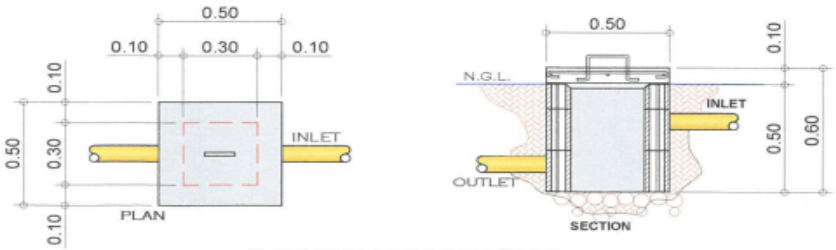
SEPTIC VAULT DETAIL
SCALE 1:40MTS

SPECIFICATIONS:

1. ALL WASTE LINE & SOIL STACK SHALL BE OF P.V.C. PIPE & JOINT TIGHTLY TOGETHER WITH P.V.C SOLVENT CEMENT.
2. ALL STORM DRAINAGE LINE SHALL BE OF 4" Ø P.V.C. PIPE & 3" Ø P.V.C. PIPE FOR DS. LINE
3. WATER SUPPLY LINE SHALL BE ATLANTA P.V.C. PIPE 3/4"Ø FOR MAIN WATER SUPPLY LINE & 1/2 " Ø FOR DISTRIBUTION LINE.
4. ALL PLUMBING FIXTURES SHALL BE FREE OF DAMAGE OR DEFECT & SHOULD BE OF STANDARD MADE.
5. ALL WATER CLOSET SHALL BE PROVIDED WITH WATER CLOSET FLANGE.
6. ALL PLUMBING INSTALLATION SHALL BE DONE UNDER THE SUPERVISION OF A REGISTERED MASTER PLUMBER AND SANITARY ENGINEER.
7. ALL PLUMBING WORKS SHALL BE DONE UNDER IN ACCORDANCE WITH THE LATEST PROVISION OF THE NATIONAL PLUMBING CODE OF THE PHILS. & OF THE LOCAL WATER DISTRICT.

LEGEND:

- C.O. — CLEAN OUT
- F.D. — FLOOR DRAIN
- LAV. — LAVATORY
- FAU. — FAUCET
- G.T. — GREASE TRAP
- W.C. — WATER CLOSET
- C.B. — CATCH BASIN
- V.T.R. — VENT THRU ROOF
- WATER LINE
- SANITARY PIPE LINE 1
- SANITARY PIPE LINE 2



CATCH BASIN DETAIL
SCALE 1:20MTS

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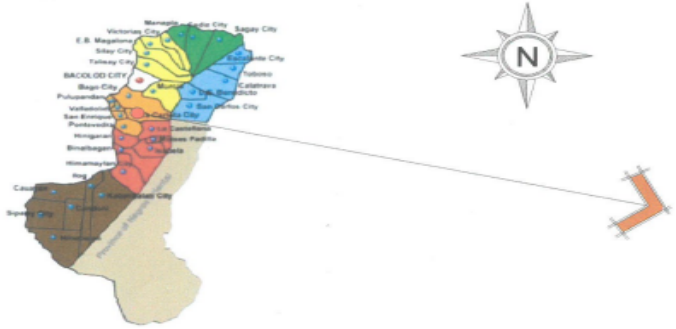
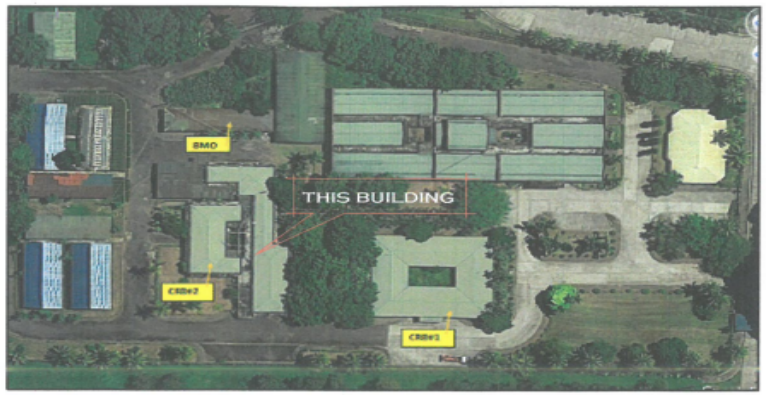


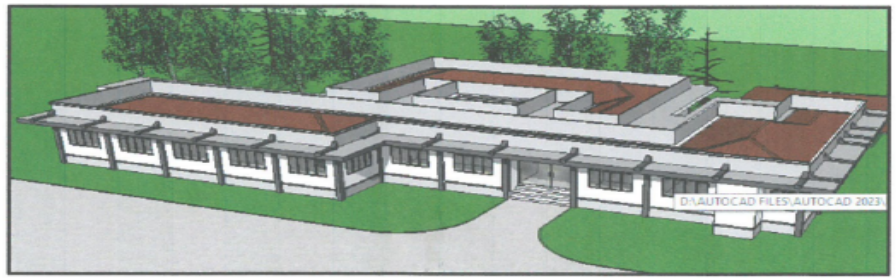
NEGROS ISLAND MAP
NOT DRAWN TO SCALE

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS (EL.) ARE IN METERS.
3. ALL PARTS OF THE STRUCTURE UNLESS OTHERWISE SPECIFIED SHALL BE CONCRETE HAVING MINIMUM OF COMPRESSIVE STRENGTH OF 211 KSCM AT 28 DAYS.
4. REINFORCING BARS SHALL BE DEFORMED BILLET STEEL OF INTERMEDIATE GRADE (ASTM 615 OR PS 275 GRADE 40).
5. THE MAXIMUM SIZE OF AGGREGATES FOR CAST-IN PLACE CONCRETE SHALL NOT BE LARGER THAN 1/5 OF THE LEAST DIMENSIONS OF THE MEMBER NOR LARGER THAN 40MM. FOR PRECAST CONCRETE SHALL NOT BE LARGER THAN $\frac{1}{3}$ OF THE LEAST DIMENSION OF THE MEMBER NOR LARGER THAN 20MM.
6. CONCRETE PROTECTION FOR REINFORCEMENT SHALL NOT BE LESS THE FOLLOWING.
A.) FROM THE GROUND CONTACT SURFACE OF CONCRETE FOOTINGS AND OTHER MEMBERS IN WHICH CONCRETE IS DEPOSITED AGAINST THE GROUND _____7.5CM.
B.) FROM CONCRETE SURFACE EXPOSED TO WATER FLOW OR BE IN CONTACT WITH THE GROUND AFTER REMOVAL OF FORMS.
7. FOR BARS LARGER THAN 16MM Ø _____5CM.
8. FOR BARS 16MM Ø AND SMALLER Ø _____4CM.
9. LAPPING OF BARS SHALL BE 24 BAR Ø FOR DEFORMED BARS AND 48 BAR Ø FOR PLAIN BARS SPLICES SHALL BE STAGGERED.
10. ALL BARS NOT OTHERWISE SPECIFIED SHALL BE 10MM Ø SPACED 30CM O.C. OR 12MM Ø SPACED 45CM ON CENTER.
11. MINIMUM DISTANCE BETWEEN PARALLEL BARS SHALL BE 5CM.
12. DEFLECT REINFORCEMENTS AROUND GROUT PROJECT POCKETS AND RECESSES WHERE REQUIRED.
13. ALL EXPOSE EDGES SHALL BE ROUNDED OR CHAMBERED.
14. ALL BARS WHEN REQUIRED SHALL BE BENT COLD.
HOOKS OR BENDS SHOWN IN THE DRAWING SHALL HAVE THE FOLLOWING DIMENSIONS.

R = 2 $\frac{1}{2}$ BAR Ø FOR 10MM Ø OR 16MM Ø BARS
R = 3 BAR Ø FOR 20MM Ø 22MM Ø OR 25MM Ø BARS



VICINITY MAP
NOT DRAWN TO SCALE



PERSPECTIVE VIEW

TABLE OF CONTENT

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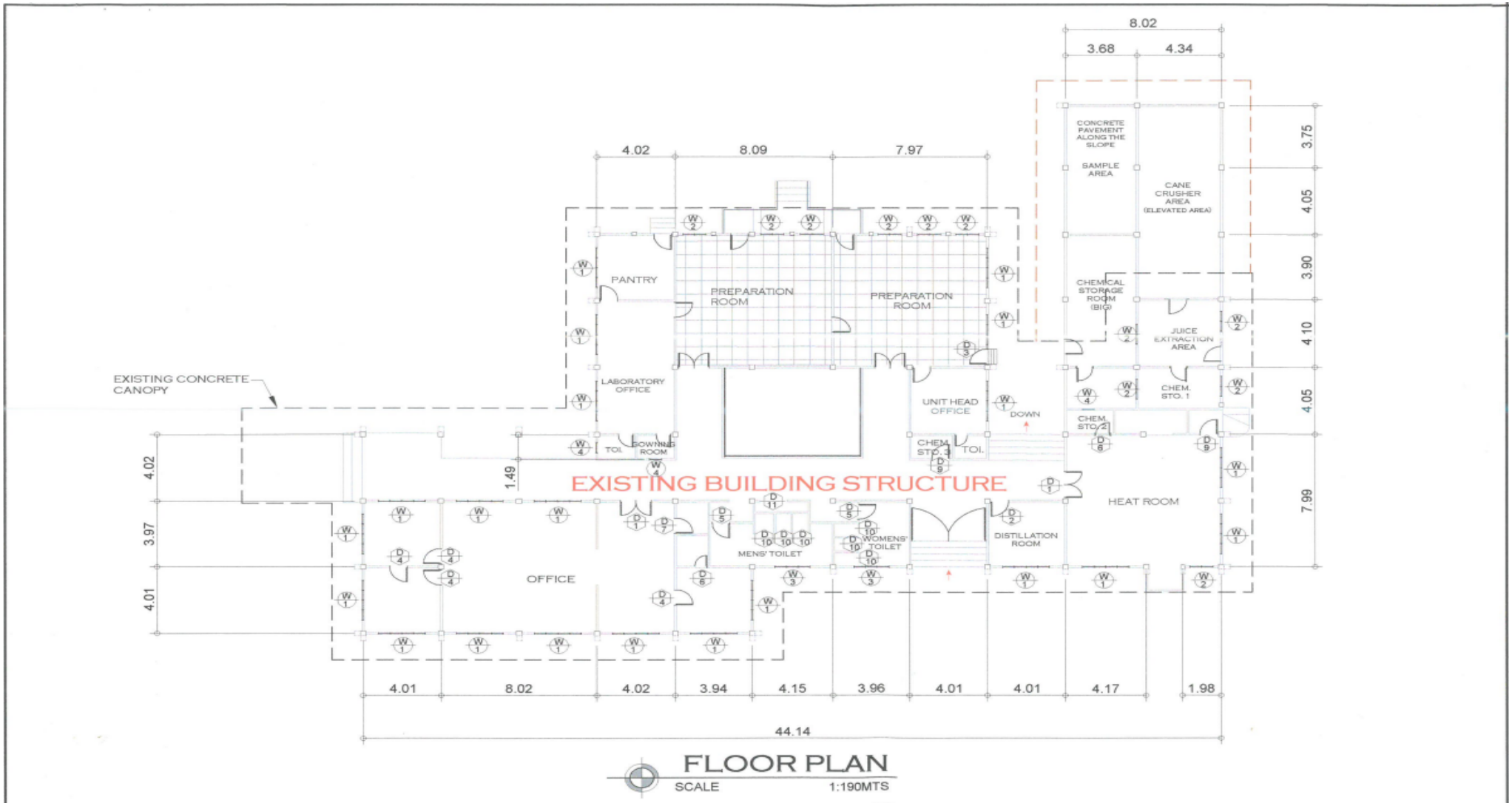

FLOOR PLAN

SCALE 1:190MTS

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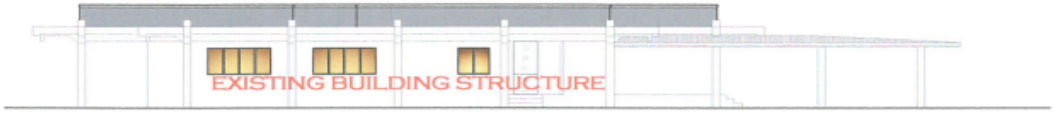
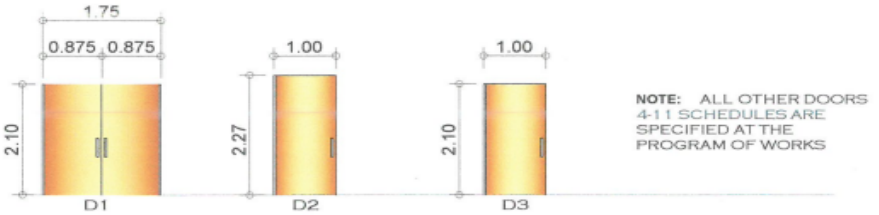
FRONT VIEW ELEVATION
SCALE 1:190MTS

REAR VIEW ELEVATION
SCALE 1:190MTS



RIGHT SIDE ELEVATION
SCALE 1:190MTS

LEFT SIDE ELEVATION
SCALE 1:190MTS

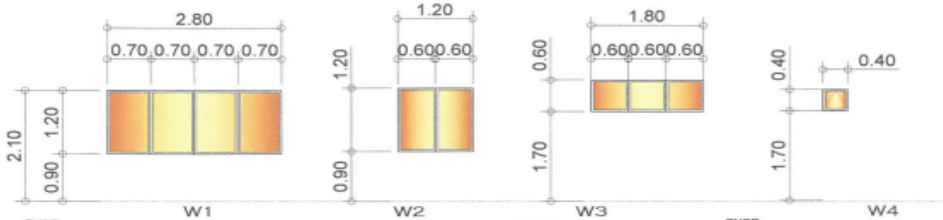


TYPE: TINTED (BROWN) TEMPERED FRAMED, SWING TYPE DOOR
UNIT: 2 SET

TYPE: TINTED (BROWN) TEMPERED FRAMED, SWING TYPE DOOR
UNIT: 1 SET

TYPE: TINTED (BROWN) TEMPERED FRAMED, SWING TYPE DOOR
UNIT: 1 SET

NOTE: ALL OTHER DOORS 4-1 1 SCHEDULES ARE SPECIFIED AT THE PROGRAM OF WORKS



TYPE:
TINTED (BROWN) TEMPERED SLIDING GLASS WINDOW w/ BRONZE POWDERED COATED ALUMINUM FRAME
UNIT: 21 SETS

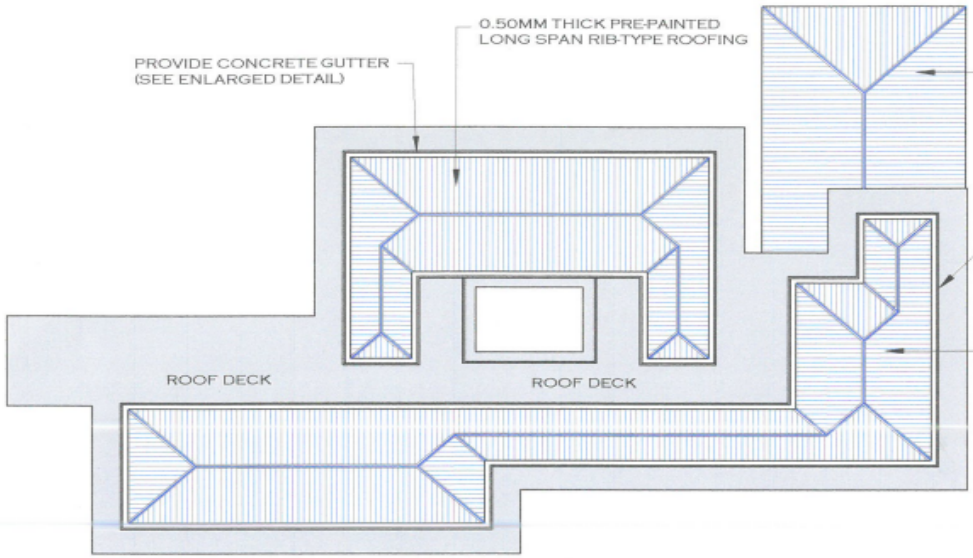
TYPE:
TINTED (BROWN) TEMPERED SLIDING GLASS WINDOW w/ BRONZE POWDERED COATED ALUMINUM FRAME
UNIT: 11 SETS

TYPE:
TINTED (BROWN) TEMPERED SLIDING GLASS WINDOW w/ BRONZE POWDERED COATED ALUMINUM FRAME
UNIT: 2 SETS

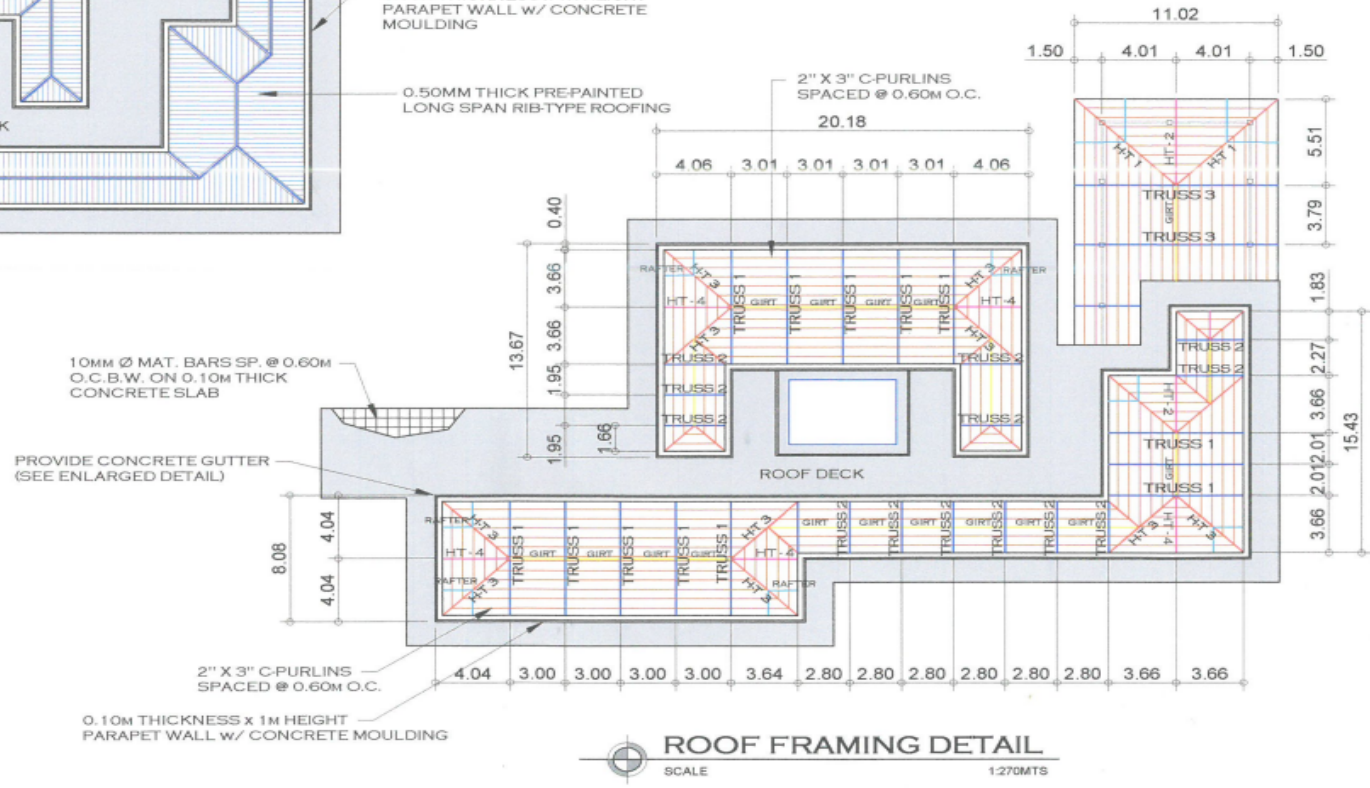
TYPE:
TINTED (BROWN) TEMPERED AWNING GLASS WINDOW w/ BRONZE POWDERED COATED ALUMINUM FRAME
UNIT: 3 SETS

SCHEDULE OF DOOR & WINDOWS
SCALE 1:70MTS

Project Owner / Implementing Agency	Project Title:	Prepared & Submitted by:	Checked & Reviewed by:	Noted by:	Recommending Approval:	Approved By:	Sheet #:
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CROP RESEARCH BUILDING 2 LOCATION: SRA- LGAREC, LA GRANJA, LA CARLOTA CITY, NEGROS OCCIDENTAL	ENGR. MICHAEL R. MAMAYBAY Senior Agricultural / ME Engineer III	ENGR. NORMEL L. FAJARITO Civil Engineer/TWG-Infrastructure Projects	TERESITA B. BANAS Chief, Agricultural Support Services Division	MA. LOURDES C. ALMODIENTE, Dr. Dev. OIC-SRA-LGAREC Station	ATTY. IGNACIO S. SANTILLANA Deputy Administrator II, RDE	3/10

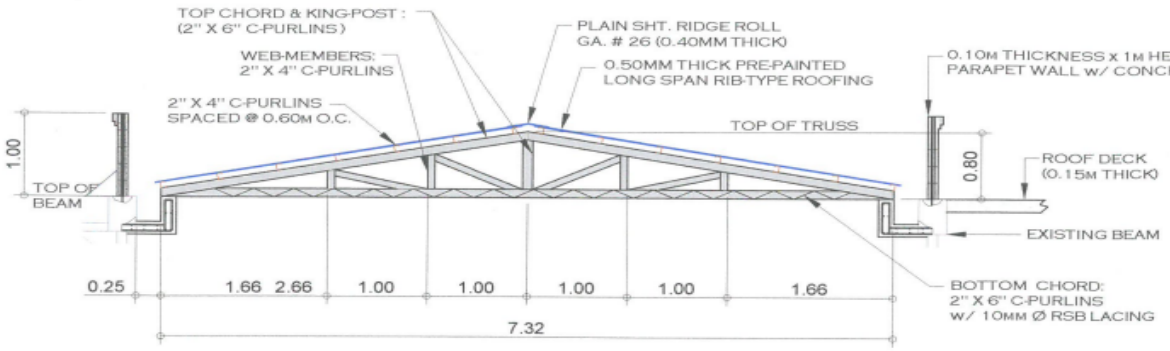


ROOF FRAMING PLAN
SCALE 1:270MTS



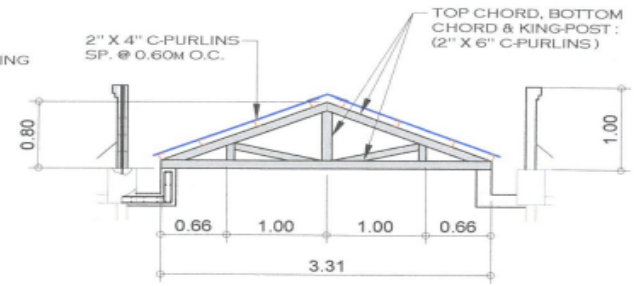
ROOF FRAMING DETAIL
SCALE 1:270MTS

Project Owner / Implementing Agency	Project Title:	Prepared & Submitted by:	Checked & Reviewed by:	Noted by:	Recommending Approval:	Approved By:	Sheet #:
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CROP RESEARCH BUILDING 2 Location: SRA- LGAREC, LA GRANJA, LA CARLOTA CITY, NEGROS OCCIDENTAL	ENGR. MICHAEL R. RAMAYBAY Senior Agriculturist / PMC Engineer II	ENGR. NORMEL L. FAJARITO Civil Engineer/TWG Infrastructure Projects	TERESITA B. BANAS Chief, Agricultural Support Services Division	MA. LOURDES C. ALMODIENTE, Dr. Dev. OIC-SRA-LGAREC Station	ATTY. IGNACIO S. SANTILLANA Deputy Administrator II, RDE	4 / 10



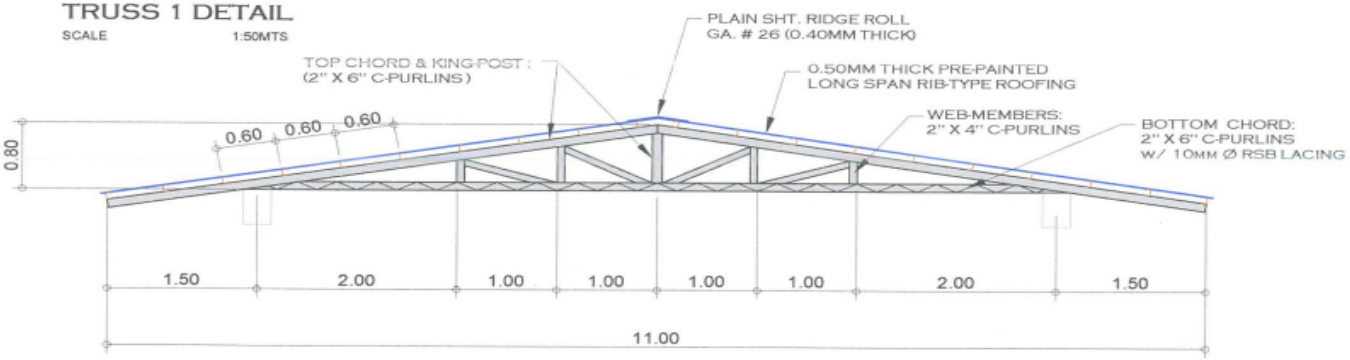
TRUSS 1 DETAIL

SCALE 1:50MTS



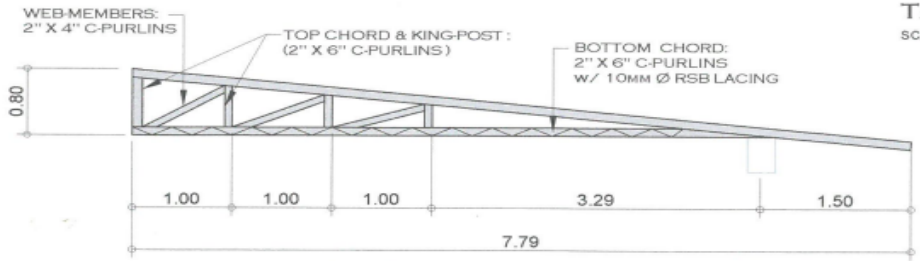
TRUSS 2 DETAIL

SCALE 1:70MTS



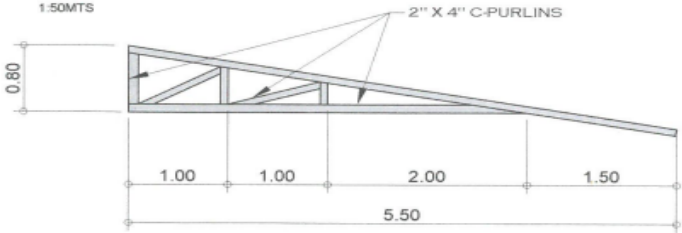
TRUSS 3 DETAIL

SCALE 1:50MTS



HIP- TRUSS (H-T1) DETAIL

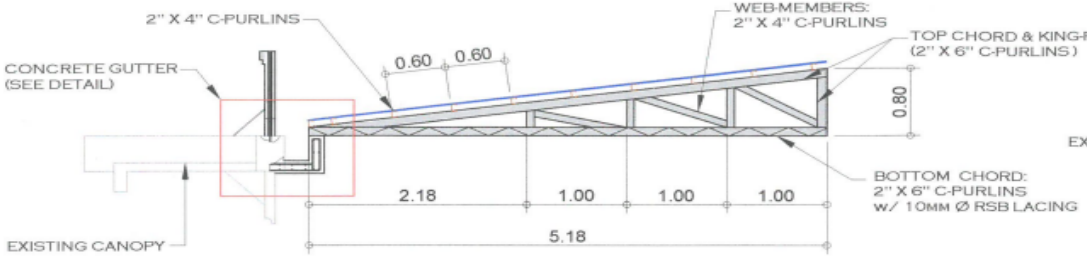
SCALE 1:50MTS



HIP- TRUSS (H-T2) DETAIL

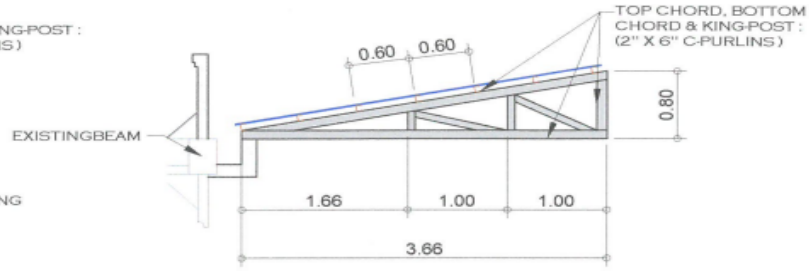
SCALE 1:50MTS

Project Owner / Implementing Agency	Project Title:	Prepared & Submitted by:	Checked & Reviewed by:	Noted by:	Recommending Approval:	Approved By:	Sheet #:
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CROP RESEARCH BUILDING 2 LOCATION: SRA- LGAREC, LA GRANJA, LA CARLOTA CITY, NEGROS OCCIDENTAL	ENGR. MICHAEL L. HAMAYBAY Senior Agriculturist /OIC Engineer II	ENGR. NORMEL L . FAJARITO Senior Agriculturist /OIC Engineer II	TERESITA B. BANAS Chief, Agricultural Support Services Division	MA. LOURDES C. ALMODIENTE, Dr. Dev. OIC–SRA–LGAREC Station	ATTY. IGNACIO S. SANTILLANA Deputy Administrator II, RDE	5/10



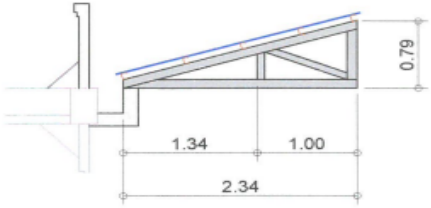
HIP- TRUSS (H-T3) DETAIL

SCALE 1:50MTS



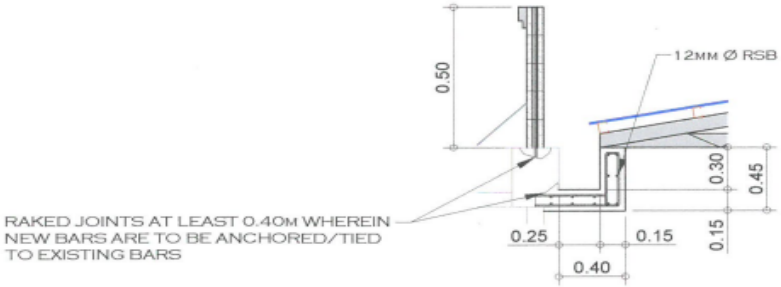
HIP- TRUSS (H-T4) DETAIL

SCALE 1:50MTS



RAFTER DETAIL

SCALE 1:50MTS



CONCRETE GUTTER DETAIL

SCALE 1:270MTS

Project Owner / Implementing Agency	Project Title:	Prepared & Submitted by:	Checked & Reviewed by:	Noted by:	Recommending Approval:	Approved By:	Sheet #:
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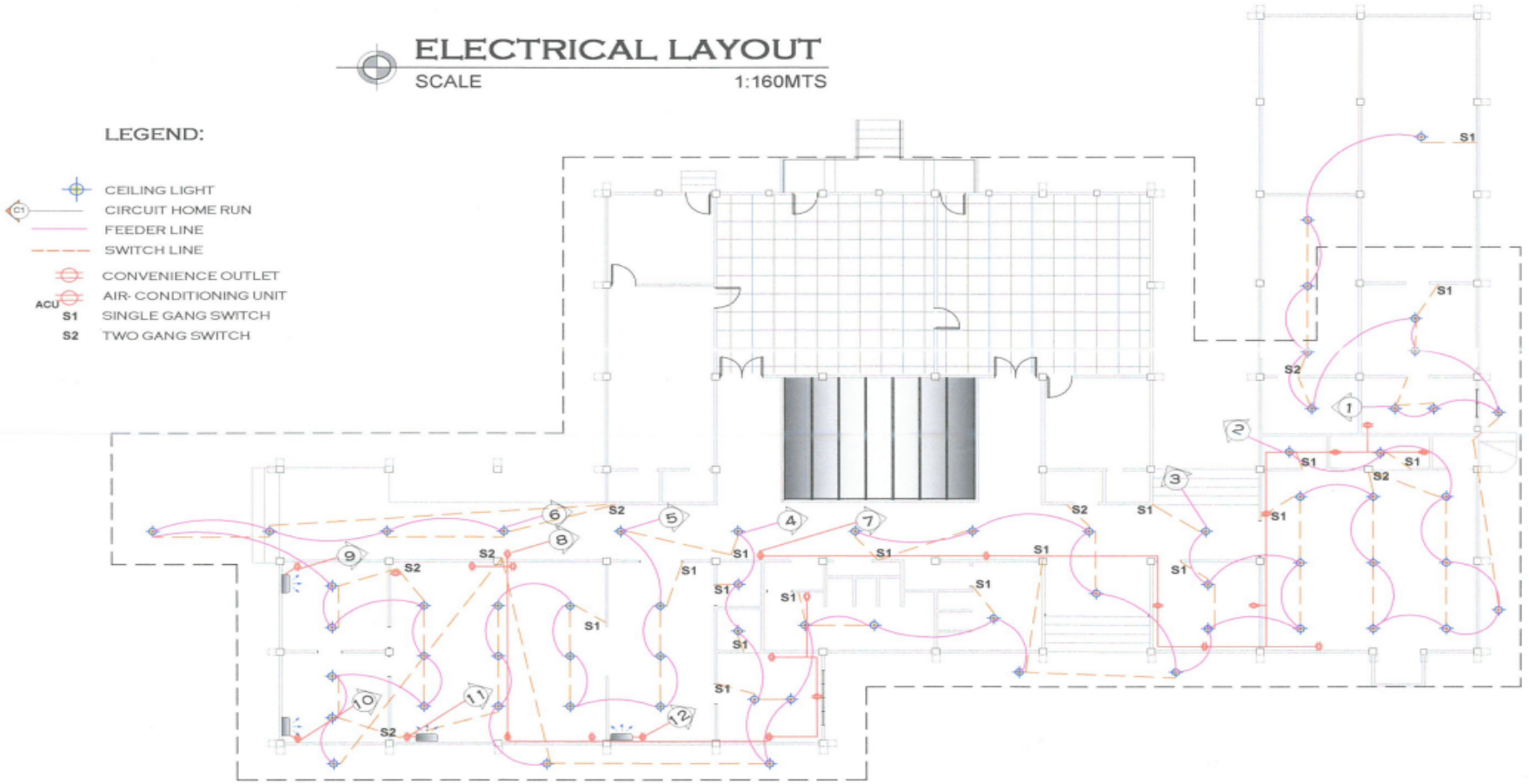
ELECTRICAL LAYOUT

SCALE 1:160MTS



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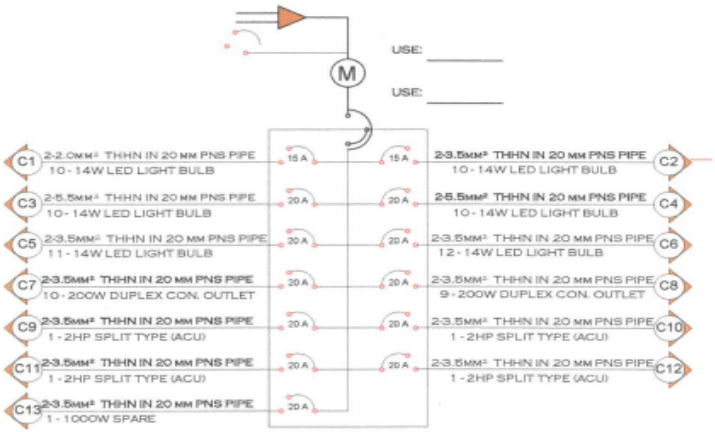
SCHEDULE OF LOADS

CKT NO.	DESCRIPTION	WATTS	VOLTS	AMPS	PROTECTION	SIZE OF WIRE
C-1	10 - 14W LED LIGHT BULB	140	220	0.64	15 A	2-2.0MM² THHN IN 20 MM PNS PIPE
C-2	10 - 14W LED LIGHT BULB	140	220	0.64	15 A	2-2.0MM² THHN IN 20 MM PNS PIPE
C-3	10 - 14W LED LIGHT BULB	140	220	0.64	15 A	2-2.0MM² THHN IN 20 MM PNS PIPE
C-4	10 - 14W LED LIGHT BULB	140	220	0.64	15 A	2-2.0MM² THHN IN 20 MM PNS PIPE
C-5	11 - 14W LED LIGHT BULB	154	220	0.70	15 A	2-2.0MM² THHN IN 20 MM PNS PIPE
C-6	12 - 14W LED LIGHT BULB	168	220	0.76	15 A	2-2.0MM² THHN IN 20 MM PNS PIPE
C-7	10 - 200W DUPLEX CON. OUTLET	2000	220	9.09	20 A	2-5.5MM² THHN IN 20 MM PNS PIPE
C-8	9 - 200W DUPLEX CON. OUTLET	1,800	220	8.18	20 A	2-5.5MM² THHN IN 20 MM PNS PIPE
C-9	1 - 2HP SPLIT TYPE (ACU)	1,492	220	6.78	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
C-10	1 - 2HP SPLIT TYPE (ACU)	1,492	220	6.78	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
C-11	1 - 2HP SPLIT TYPE (ACU)	1,492	220	6.78	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
C-12	1 - 2HP SPLIT TYPE (ACU)	1,492	220	6.78	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
C-13	1 - 1000W SPARE	1,000	220	4.54	20 A	2-3.5MM² THHN IN 20 MM PNS PIPE
	TOTAL CONNECTED LOAD	11,650		52.95		

VICINITY MAP
NOT DRAWN TO SCALE



SINGLE LINE DIAGRAM

ELECTRICAL SPECIFICATIONS:

1. ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE. THE LAWS AND ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE LOCAL POWER COMPANY.
2. THE CONTRACTOR SHALL SECURE ALL PERMITS ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEERS FINAL CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETE WORK.
3. ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND INSTALLED IN APPLICATIONS FOR WHICH THEY ARE INTENDED.
4. LIGHTING, OUTLET, EQUIPMENT BRANCH CIRCUIT WITHOUT DESIGNATION SHALL BE 3 - WIRE (1-GORUND, & 2- LIVE) 3.5 SQ.MM THHN + 2.0 SQ.MM THHN WIRE IN 20MM Ø RSC.
5. BOXES SHALL BE MADE OF CODE CAGE STEEL WITH ZINC CHROMATE PROTECTION
6. MOUNTING HEIGHTS FOR SWITCHES AND CONVENIENCE OUTLET SHALL BE 1.40M AND 0.40M RESPECTIVELY, UNLESS OTHERWISE INDICATED IN PLANS.
7. ALL RECEPTACLE OUTLETS SHALL BE PARALLEL SLOT, 3-PRONG, GROUNDING/ UNIVERSAL TYPE AND PROPERLY GROUNDED TO THE BOX BY MEANS OF GROUNDING LUGS.
8. VERIFY FROM THE ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF THE LIGHTING FIXTURES AND WIRING DEVICES.
9. GROUNDING AND NEUTRAL WIRES SHALL BE TERMINATED AND LAID-OUT THRU ENTIRE LENGTH OF THE CONDUIT SYSTEM (FROM PANEL BOARD UP TO LOADS).
10. CONTRACTOR MAY USE A CONDUIT SUSPENSION SYSTEM EQUIVALENT TO WHAT IS DETAILED. HAVING THE FEATURES SHOWN ON THIS PLAN AND APPROVED IN ADVANCE BY THE ENGINEER.
11. PROVIDE A SAMPLE OF ALL MATERIALS AND SUPPORT SYSTEM TO BE KEPT ON THE JOB SITE FOR CONSTRUCTION GUIDE PURPOSES.
12. CONDUIT SUSPENSION SYSTEM SHALL BE INDEPENDENT OF ANY OTHER SUSPENSION SYSTEM.
13. NATURE OF WORK FOR SERVICE ENTRANCE SHALL BE DONE IN INTERMEDIATE METALLIC CONDUIT WITH PROPER BOXES, SUPPORTS AND FITTINGS OR AS PER LOCAL UTILITY COMPANY TO BE COORDINATED BY THE CONTRACTOR.
14. NATURE OF WORKS FOR LIGHTING AND POWER AND AUXILIARY SYSTEM SHALL BE DONE IN RIGID STEEL (RSC) CONDUIT WITH PROPER BOXES, SUPPORT AND FITTINGS.
15. UNLESS OTHERWISE SPECIFIED, PULL-BOXES OR JUNCTION BOXES SHALL BE PROVIDED WHENEVER REQUIRED AND NECESSARY, ALTHOUGH SUCH BOXES WHERE NOT INDICATED ON PLANS AND SHALL BE APPROVED FOR INTENDED LOCATIONS.
16. ALL WORKS HEREIN SHALL BE DONE UNDER THE DIRECT SUPERVISION FROM A DULY LICENSED , REGISTERED AND COMPETENT ELECTRICAL ENGINEER OR MASTER ELECTRICIAN.

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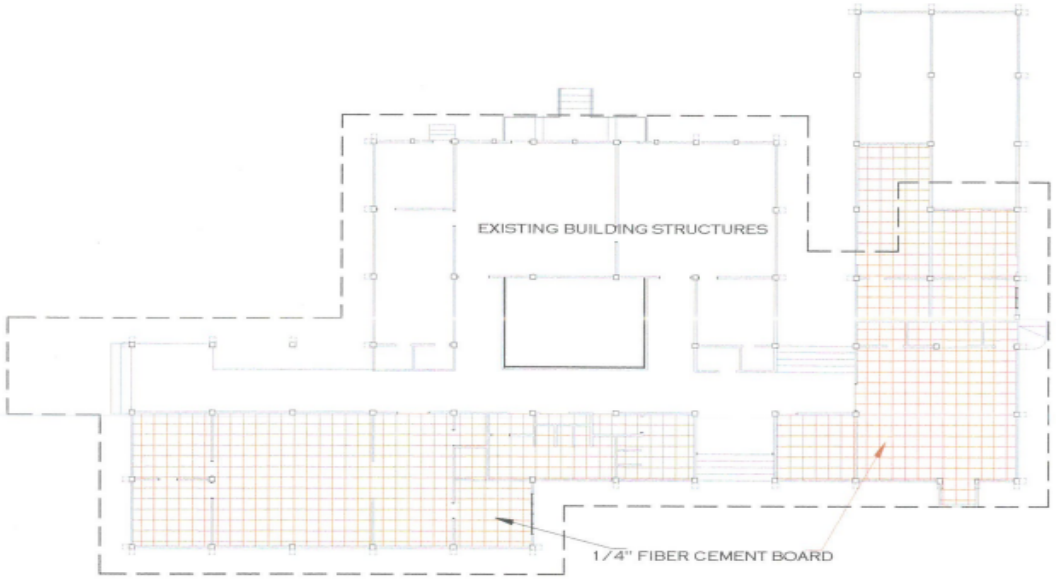
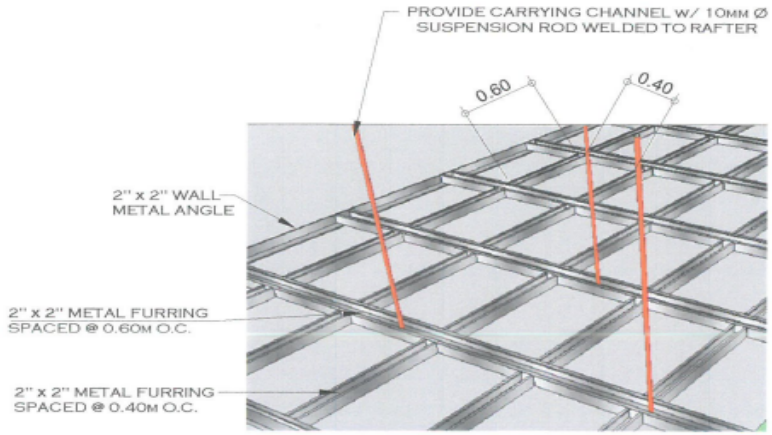
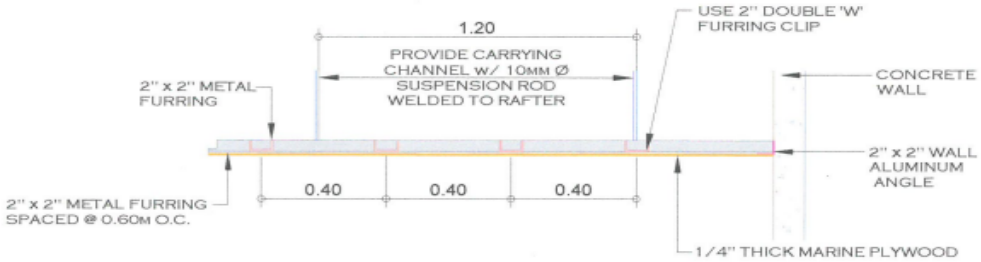


REFLECTED CEILING PLAN
SCALE 1:160MTS



ISOMETRIC VIEW OF INTERIOR CEILING



DETAIL OF THREADED ROD IN CONNECTION TO FURRING & CARRYING CHANNEL
SCALE 1:15MTS

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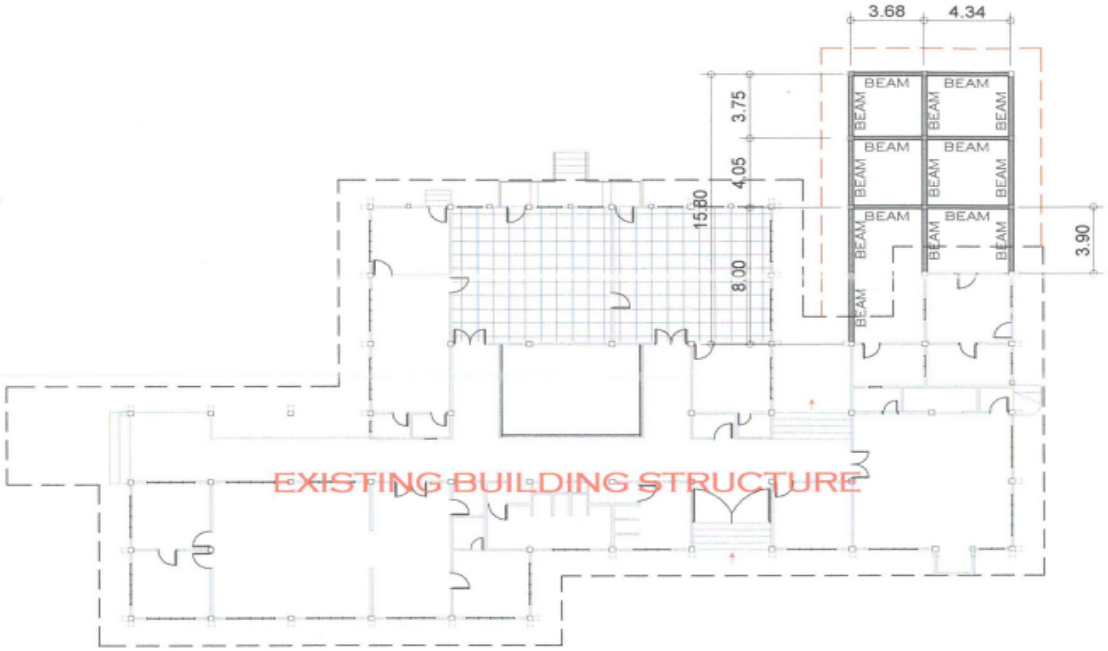
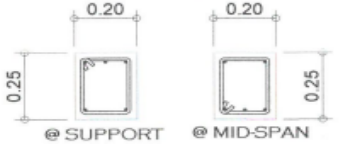


ROOF BEAM LAYOUT
SCALE 1:190MTS

USE : 5 - 16MM Ø MAIN BAR w/
10MM Ø STIRRUPS SP.@ 5 - 0.05M O.C.,
5 - 0.10M, 5- 0.15M REST @ 0.20M O.C.



BEAM DETAIL
SCALE 1:10MTS

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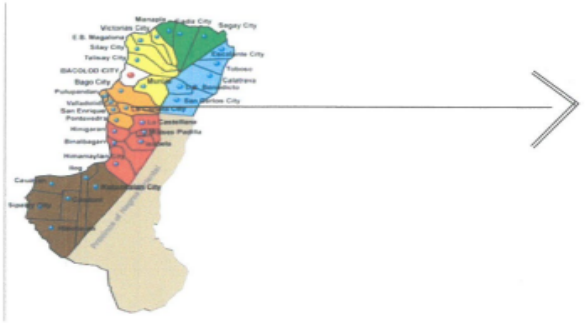
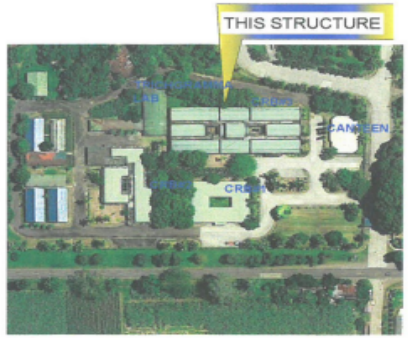


NEGROS ISLAND MAP



LOCATION MAP

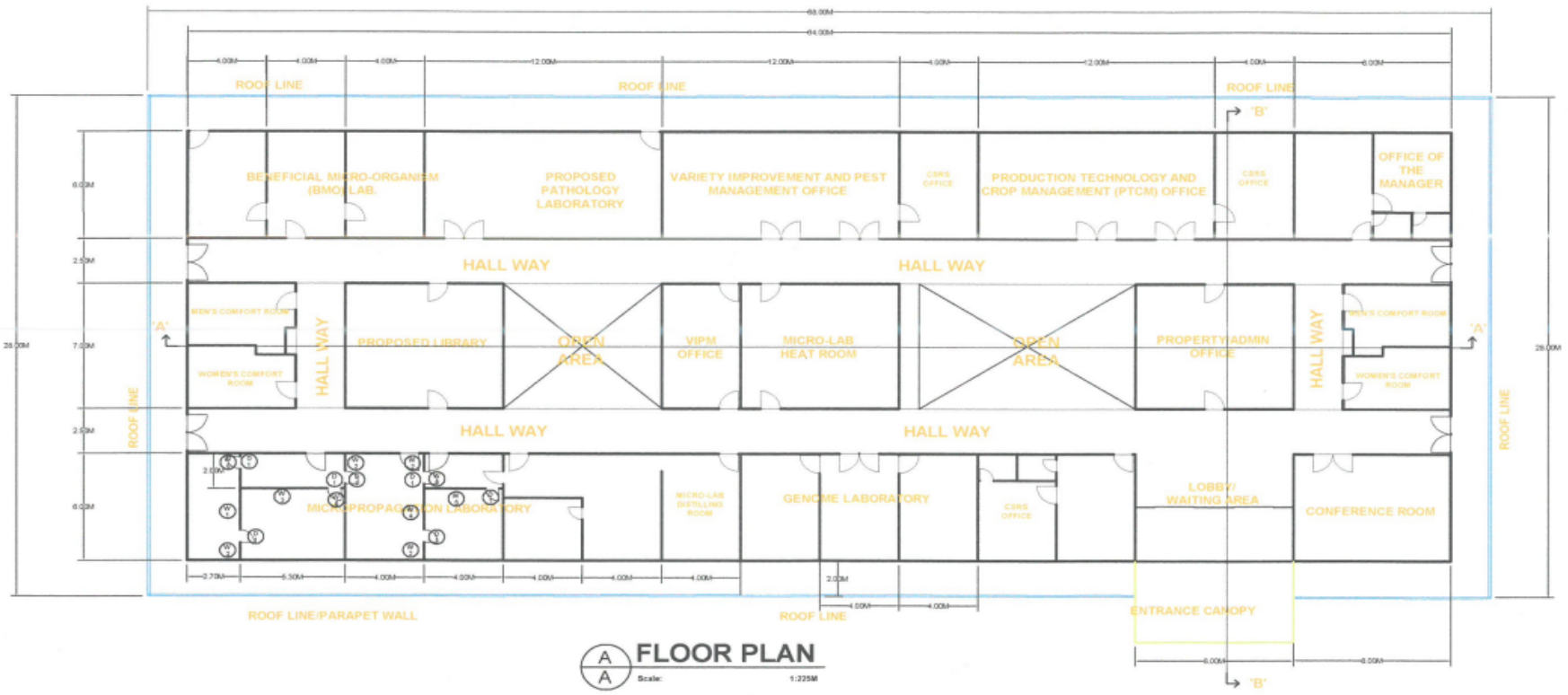
GENERAL NOTES:
1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS (EL.) ARE IN METERS.
3. ALL PARTS OF THE STRUCTURE UNLESS OTHERWISE SPECIFIED SHALL BE CONCRETE HAVING MINIMUM OF COMPRESSIVE STRENGTH OF 211 KSCM AT 28 DAYS.
4. REINFORCING BARS SHALL BE DEFORMED BILLET STEEL OF INTERMEDIATE GRADE (ASTM 615 OR PS 275 GRADE 40).
5. THE MAXIMUM SIZE OF AGGREGATES FOR CAST-IN PLACE CONCRETE SHALL NOT BE LARGER THAN 1/5 OF THE LEAST DIMENSIONS OF THE MEMBER NOR LARGER THAN 40MM. FOR PRECAST CONCRETE SHALL NOT BE LARGER THAN ¼ OF THE LEAST DIMENSION OF THE MEMBER NOR LARGER THAN 20MM.
6. CONCRETE PROTECTION FOR REINFORCEMENT SHALL NOT BE LESS THE FOLLOWING.
A.) FROM THE GROUND CONTACT SURFACE OF CONCRETE FOOTINGS AND OTHER MEMBERS IN WHICH CONCRETE IS DEPOSITED AGAINST THE GROUND _____7.5CM.
B.) FROM CONCRETE SURFACE EXPOSED TO WATER FLOW OR BE IN CONTACT WITH THE GROUND AFTER REMOVAL OF FORMS.
7. FOR BARS LARGER THAN 16MM Ø _____5CM.
8. FOR BARS 16MM Ø AND SMALLER Ø _____4CM.
9. LAPPING OF BARS SHALL BE 24 BAR Ø FOR DEFORMED BARS AND 48 BAR Ø FOR PLAIN BARS SPLICES SHALL BE STAGGERED.
10. ALL BARS NOT OTHERWISE SPECIFIED SHALL BE 10MM Ø SPACED 30CM O.C. OR 12MM Ø SPACED 45CM ON CENTER.
11. MINIMUM DISTANCE BETWEEN PARALLEL BARS SHALL BE 5CM.
12. DEFLECT REINFORCEMENTS AROUND GROUT PROJECT POCKETS AND RECESSES WHERE REQUIRED.
13. ALL EXPOSE EDGES SHALL BE ROUNDED OR CHAMBERED.
14. ALL BARS WHEN REQUIRED SHALL BE BENT COLD.
HOOKS OR BENDS SHOWN IN THE DRAWING SHALL HAVE THE FOLLOWING DIMENSIONS.

R = 2½ BAR Ø FOR 10MM Ø OR 16MM Ø BARS
R = 3 BAR Ø FOR 20MM Ø 22MM Ø OR 25MM Ø BARS

CROP RESEARCH BUILDING #3

TABLE OF CONTENT

Project Owner/Implementing Agency:	Project Title:	Prepared and Submitted by:	Checked and Reviewed by:	Noted by:	Recommending Approval:	Approved by:	Sheet No.
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CRB#3(Phase 2)	MICHAEL R. HAMAYBAY	ENGR. NORMEL L. FAJARITO	TERESITA B. BANAS	MA. LOURDES C. ALMODIENTE, Dr. Dev.	ATTY. IGNACIO S. SANTILLANA	1/9
	Location: SRA-LGAREC, La Granja, La Carlota City, Negros Occidental	Senior Agricultural Crop Technologist III	Civil Engineer, TWG-Infra Projects	Chief, Agricultural Support Services Division	OIC-SRA-LGAREC Station	Deputy Administrator II, RDE	



A/A **FLOOR PLAN**

Scale: 1:225M

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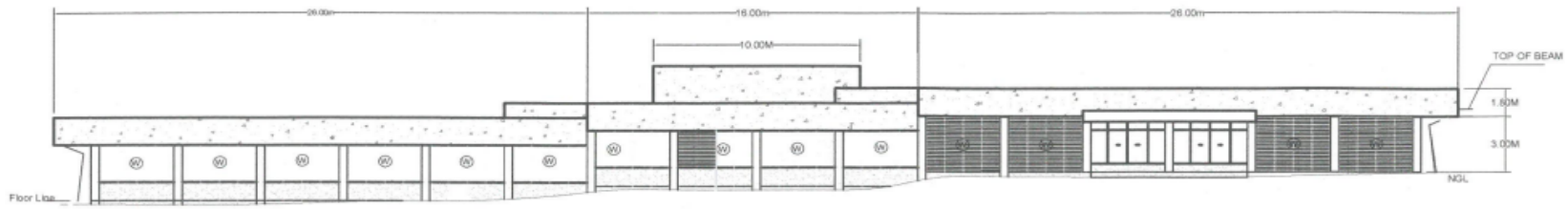
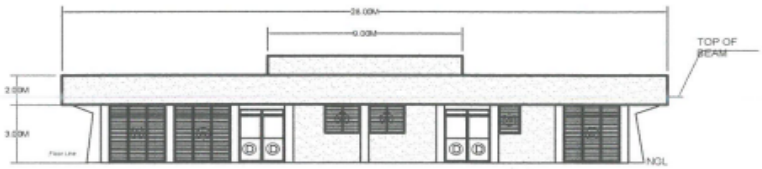
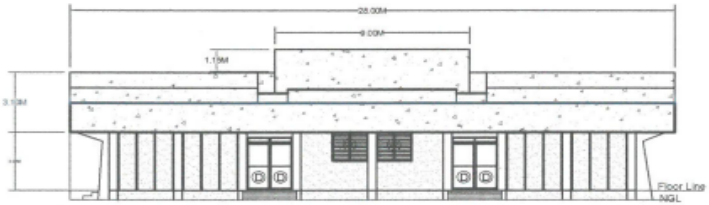
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CRB#3(Phase 2) Location: SRA-LGAREC, La Granja, La Carlota City, Negros Occidental	MICHAEL R. HAMAYBAY Senior Agriculturist/C-Engineer III	ENGR. NORMEL L. FAJARITO Civil Engineer, TWG-Infra Projects	TERESITA B. BANAS Chief, Agricultural Support Services Division	MA. LOURDES C. ALMODIENTE, Dr. Dev. OIC-SRA-LGAREC Station	ATTY. IGNACIO S. SANTILLANA Deputy Administrator II, RDM	2/9



A/B FRONT SIDE ELEVATION
Scale: 1:225M

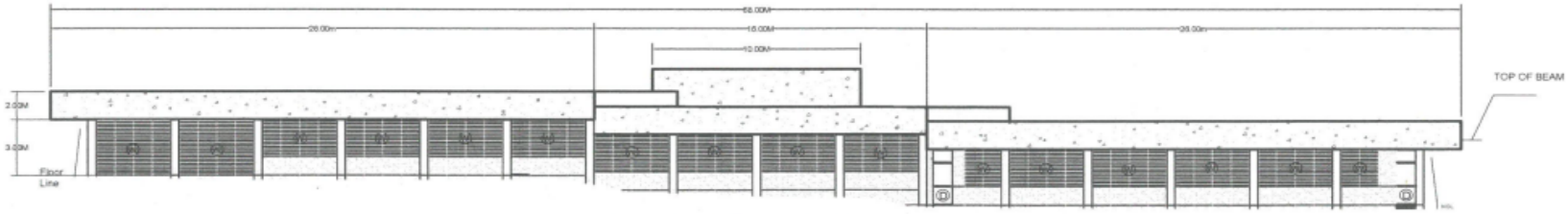


B/B RIGHT SIDE ELEVATION
Scale: 1:225M



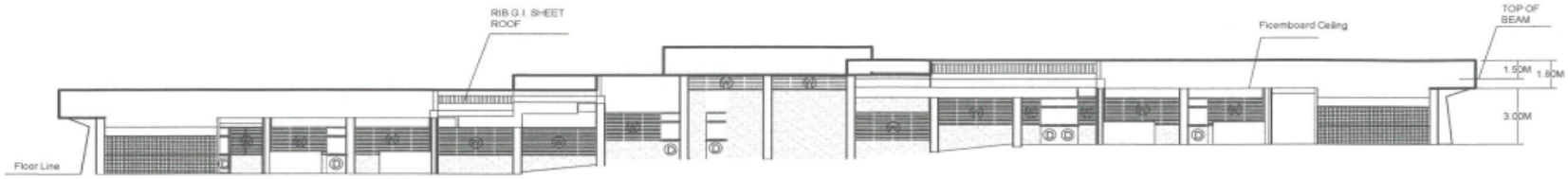
C/B LEFT SIDE ELEVATION
Scale: 1:225M

EXTENDED PARAPET WALL



D/B REAR SIDE VIEW
Scale: 1:225M

Project Owner/Implementing Agency:	Project Title:	Prepared and Submitted by:	Checked and Reviewed by:	Noted by:	Recommending Approval:	Approved by:	Sheet No.
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CRB#3(Phase 2)	MICHAEL R. HAMAYBAY	ENGR. NORMEL L. FAJARITO	TERESITA B. BANAS	MA. LOURDES C. ALMODIENTE, Dr. Dev.	ATTY. IGNACIO S. SANTILLANA	3 / 9
	Location: SRA-LGAREC, La Granja, La Carlota City, Negros Occidental	Senior Agricultural/ICC Engineer III	Civil Engineer, TWG-Infra Projects	Chief, Agricultural Support Services Division	OIC-SRA-LGAREC Station	Deputy Administrator II, RDE	

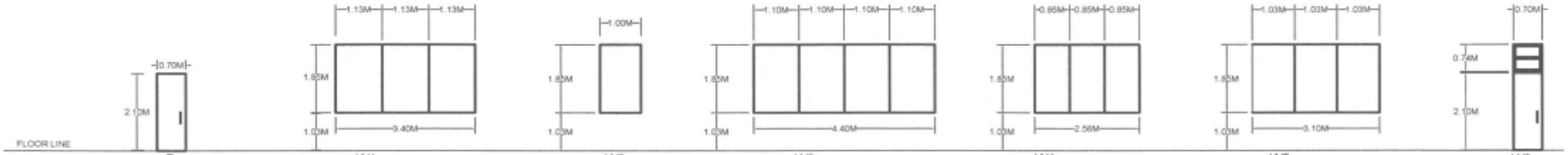


E/B SECTION THRU 'A-A'

Scale: 1:225M

F/B SECTION THRU 'B-B'

Scale: 1:225M



D
TYPE:
TEMPERED GLASS
ALUMINUM FRAME
SWING DOOR
UNIT: 7 SETS

W1
TYPE:
TEMPERED GLASS
ALUMINUM FRAME FIX
WINDOW
UNIT: 1 SET

W2
TYPE:
TEMPERED GLASS
ALUMINUM FRAME FIX
WINDOW
UNIT: 2 SETS

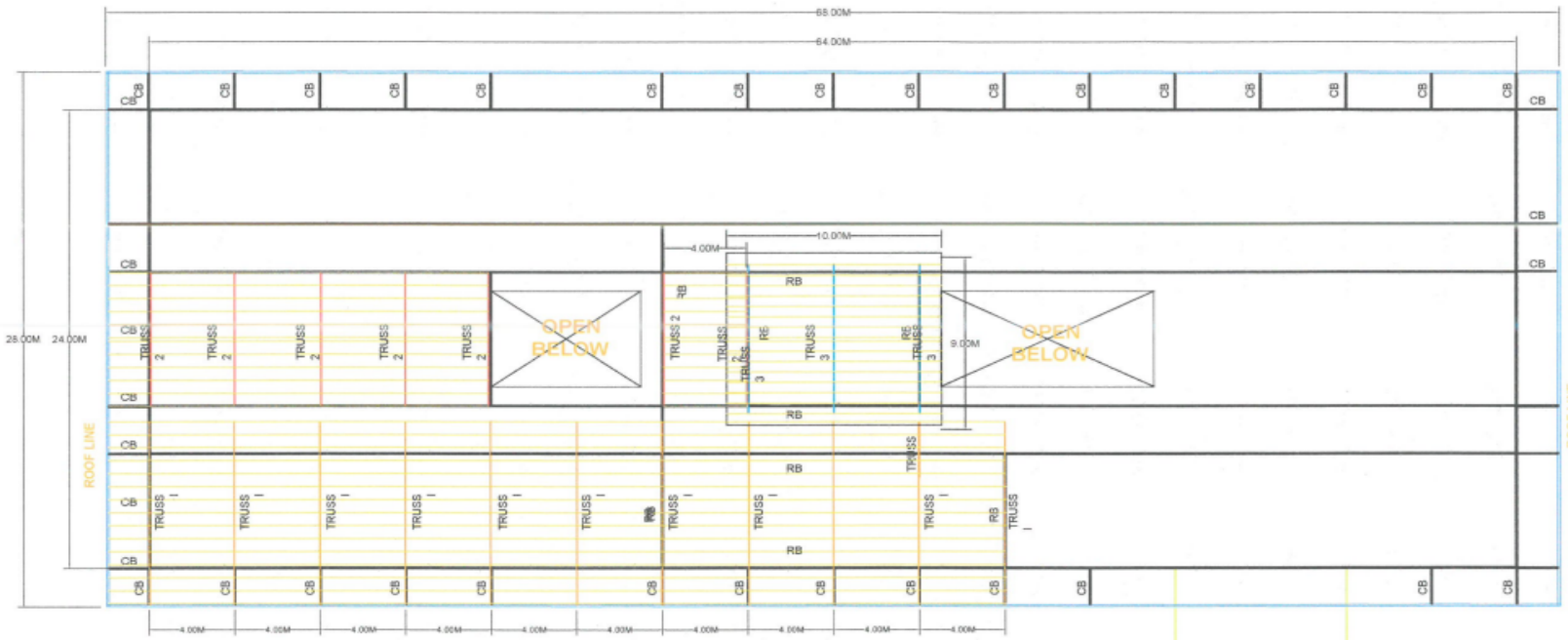
W3
TYPE:
TEMPERED GLASS
ALUMINUM FRAME FIX
WINDOW
UNIT: 1SET

W4
TYPE:
TEMPERED GLASS
ALUMINUM FRAME FIX
WINDOW
UNIT: 1 SET

W5
TYPE:
TEMPERED GLASS
ALUMINUM FRAME FIX
WINDOW
UNIT: 2 SETS

W6
TYPE:
TEMPERED GLASS
ALUMINUM FRAME FIX
WINDOW
UNIT: 6 SETS

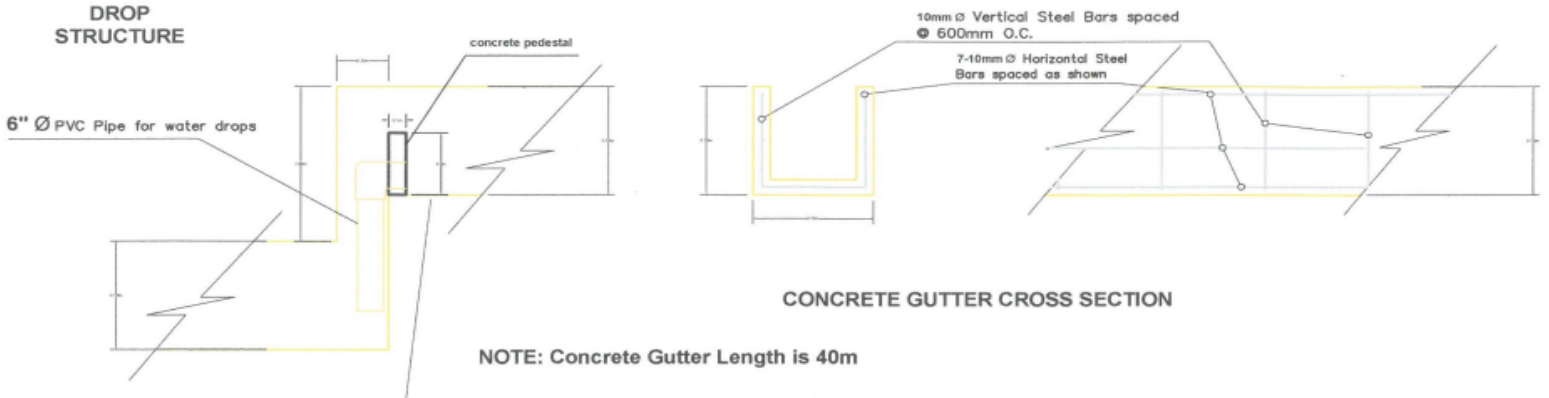
Project Owner/Implementing Agency:	Project Title:	Prepared and Submitted by:	Checked and Reviewed by:	Noted by:	Recommending Approval:	Approved by:	Sheet No.
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CRB#3(Phase 2)	MICHAEL R. HAMAYBAY	ENGR. NORMEL L. FAJARITO	TERESITA B. BANAS	MA. LOURDES C. ALMODIENTE, Dr. Dev.	ATTY. IGNACIO S. SANTILLANA	4/9
	Location: SRA-LGAREC, La Granja, La Carlota City, Negros Occidental	Senior Agriculturist/OIC-Division III	Civil Engineer, TWG-Infra Projects	Chief, Agricultural Support Services Division	OIC-SRA-LGAREC Station	Deputy Administrator II, RDM	



ROOF FRAMING PLAN

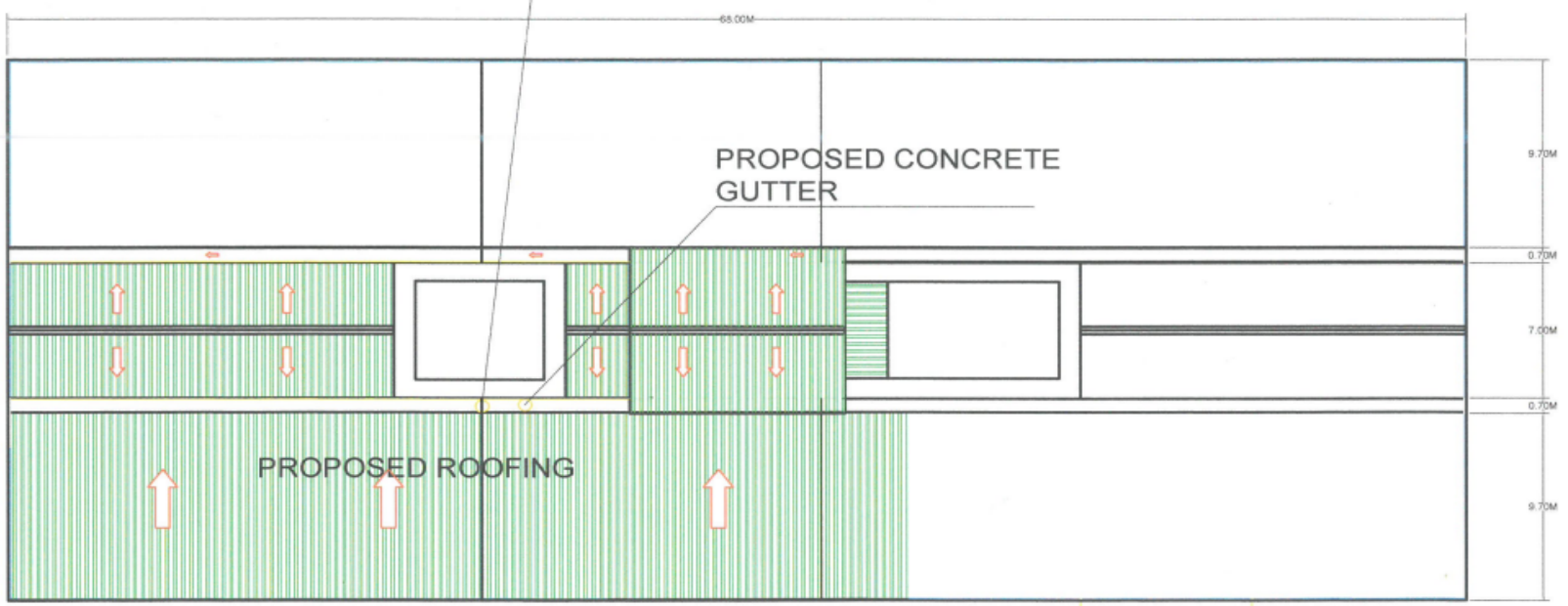
A/D Scale: 1:225M

Project Owner/Implementing Agency:	Project Title:	Prepared and Submitted by:	Checked & Reviewed by:	Noted by:	Recommending Approval:	Approved by:	Sheet No.
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CRB#3(Phase 2) Location: SRA-LGA/REC, La Granja, La Carlota City, Negros Occidental	MICHAEL R. HAMAYBAY Senior Agriculturist/OIC-Engineer II	ENGR. NORMEL L. PAJARITO Civil Engineer, TWG-Infra Projects	TERESITA B. BANAS Chief, Agricultural Support Services Division	MA. LOURDES C. ALMODIENTE, Dr. Dev. OIC-SRA-LGA/REC Station	ATTY. IGNACIO S. SANTILLANA Deputy Administrator II, RDE	5 / 9



CONCRETE GUTTER CROSS SECTION

NOTE: Concrete Gutter Length is 40m



A/E **ROOFING PLAN**

Scale: 1:225M

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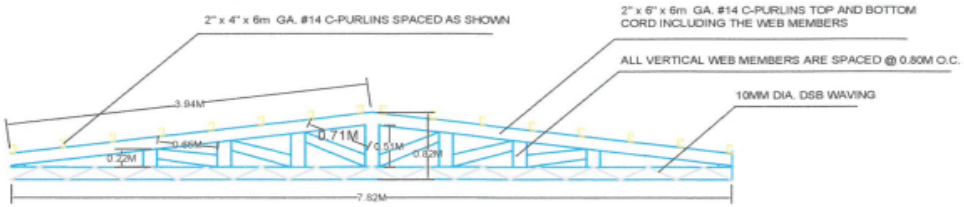
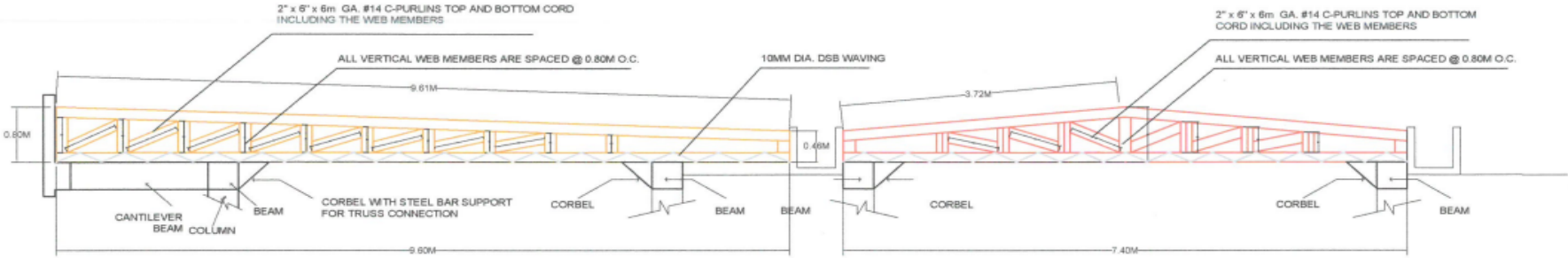
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CRB#3(Phase 2)	MICHAEL R. HAMAYBAY	ENGR. NORMEL L. PAJARITO	TERESITA B. BANAS	MA. LOURDES C. ALMODIENTE, Dr. Dev.	ATTY. IGNACIO S. SANTILLANA	6/9
	Location: SRA-LGAREC, La Granja, La Carlota City, Negros Occidental	Senior Agriculturist/OIC-Engineer III	Civil Engineer, TWG-Infra Projects	Chief, Agricultural Support Services Division	OIC-SRA-LGA/REC Station	Deputy Administrator II, RDE	



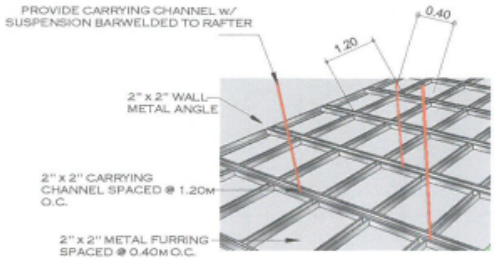
TRUSS 3 ELEVATION

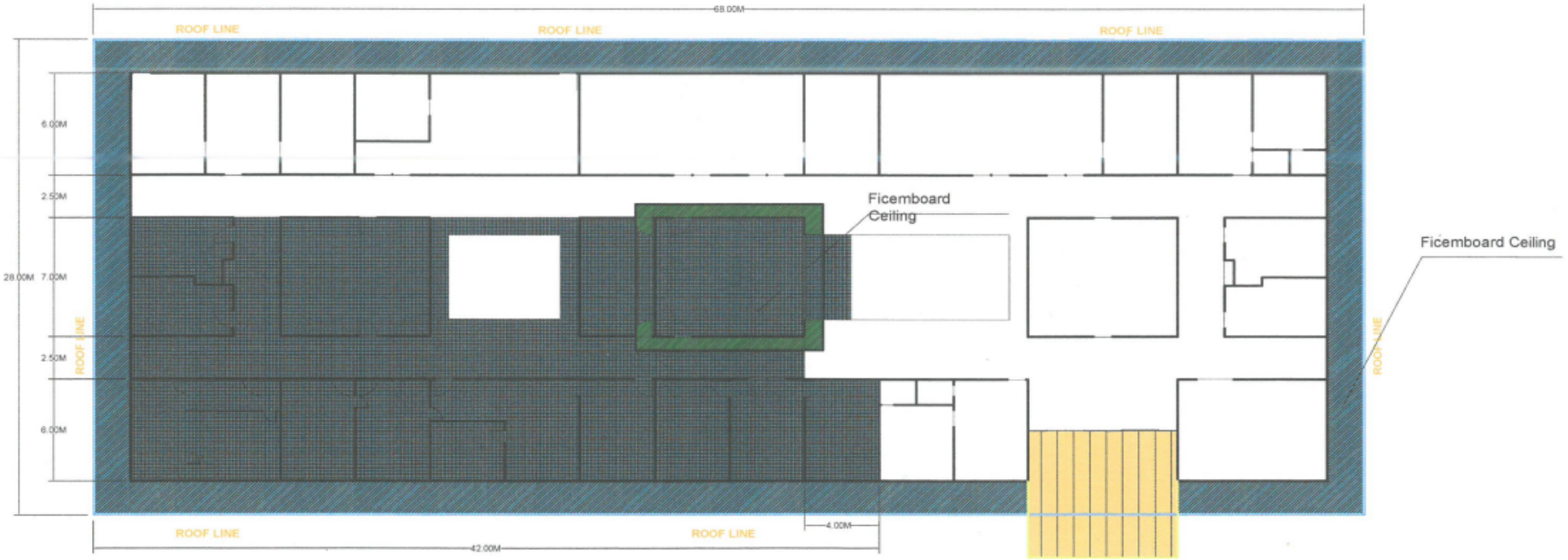


TRUSS I ELEVATION

TRUSS 2 ELEVATION

Project Owner/Implementing Agency:	Project Title:	Prepared and Submitted by:	Checked and Approved by:	Noted by:	Recommending Approval:	Approved by:	Sheet No.
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CRB#3(Phase 2) Location: SRA-LGAREC, La Granja, La Carlota City, Negros Occidental	MICHAEL R. HAMAYBAY Senior Agricultural Crop Engineer III	ENGR. NORMEL L. FAJARITO Civil Engineer, TWG-Infra Projects	TERESITA B. BANAS Chief, Agricultural Support Services Division	MA. LOURDES C. ALMODIENTE, Dr. Dev. OIC-SRA-LGAREC Station	ATTY. IGNACIO S. SANTILLANA Deputy Administrator II, RDE	7 9





A/F

BUILDING CEILING PLAN

Scale: 1:225M

Project Owner/Implementing Agency:	Project Title:	Prepared and Submitted by:	Checked and Verified by:	Noted by:	Recommending Approval:	Approved by:	Sheet No.
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CRB#3(Phase 2)	MICHAEL R. HAMAYBAY	ENGR. NORMEL L. FAJARITO	TERESITA B. BANAS	MA. LOURDES C. ALMODIENTE, Dr. Dev.	ATTY. IGNACIO S. SANTILLANA	8 / 9
	Location: SRA-LGAREC, La Granja, La Carlota City, Negros Occidental	Senior Agricultural Engineer III	Civil Engineer, TWG-Infra Projects	Chief, Agricultural Support Services Division	OIC-SRA-LGAREC Station	Deputy Administrator II, RDE	

A/G ELECTRICAL LIGHTING PLAN

Scale: 1:225M

LEGEND

- Pinlight Bulb
- S1 — Switch, 1-Gang
- S2 — Switch, 2-Gang
- S3 — Switch, 3-Gang
- Convenience Outlet, 2-Gang
- Aircon Outlet
- Convenience Outlet, 2-Gang, waterproof

SCOPE OF WORK

1. Removal of old convenience outlet, switches and airconditioning unit outlet and utility box
2. Remove and replace junction boxes
3. Pull-out electrical lighting lines and fluorescent lamp
4. Lay-out and installation of new electrical wiring lighting lines, and LED light bulb
5. Installation of new convenience outlet, switches and SPO

Project Owner/Implementing Agency:	Project Title:	Prepared and Submitted by:	Checked and Reviewed by:	Noted by:	Recommending Approval:	Approved by:	Sheet No.
SUGAR REGULATORY ADMINISTRATION	REHABILITATION OF CRB#3(Phase 2)	MICHAEL R. HAMAYBAY	ENGR. NORMEL L. FAJARITO	TERESITA B. BANAS	MA. LOURDES C. ALMODIENTE, Dr. Deu	ATTY. IGNACIO S. SANTILLANA	9/9
	Location: SRA-LGAREC, La Granja, La Carlota City, Negros Occidental	Senior Agricultural/OIC-Engineer II	Civil Engineer, TWG-Infra Projects	Chief, Agricultural Support Services Division	OIC-SRA-LGAREC Station	Deputy Administrator II, RDE	

Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

a. to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and

b. when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.

Daywork Schedule

A Daywork Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Entity of the realism of rates quoted by the Bidders, the Daywork Schedule should normally comprise the following:

a. A list of the various classes of labor, materials, and Constructional Plant for which basic daywork rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a daywork basis.

b. Nominal quantities for each item of Daywork, to be priced by each Bidder at Daywork rates as Bid. The rate to be entered by the Bidder against each basic Daywork item should include the Contractor's profit, overheads, supervision, and other charges.

Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used,

the SCC should state the manner in which they will be used, and under whose authority (usually the Procuring Entity's Representative's).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Procuring Entity to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.

Signature Box

A signature box shall be added at the bottom of each page of the Bill of Quantities where the authorized representative of the Bidder shall affix his signature. Failure of the authorized representative to sign each and every page of the Bill of Quantities shall be a cause for rejection of his bid.

These Notes for Preparing a Bill of Quantities are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final documents.

Lot A. Rehabilitation of Beneficial Micro-Organism Building (BMO)

Project Title : **REHABILITATION OF BENEFICIAL MICRO-ORGANISM BUILDING (BMO)**
ABC : **Php 6,000,000.00**
Location : **LGAREC, La Carlota City, Negros Occidental**
Completion Period : **120 Calendar Days**

BILL OF QUANTITY

Item/Description	Qty.	Unit	Unit Cost	Amount
A. Mobilization and Demobilization	1.00	lot		
B. Clearing, chipping, removal & demolition works existing structure	1.00	lot		
C. Earth Moving Works	1.00	lot		
D. Concrete and Masonry Works including plastering	1.00	lot		
E. Roof Framing and Roofing Works including gutters	1.00	lot		
F. Ceiling Works	1.00	lot		
G. Tiling Works	1.00	lot		
H. Door and Windows including installations	1.00	lot		
I. Electrical Works	1.00	lot		
J. Electrical Equipment including installation	1.00	lot		
K. Plumbing and Sanitary Works	1.00	lot		
L. Painting Works(Walls)	1.00	lot		
M.Septic Vault Works	1.00	lot		
N.Cabinets	1.00	lot		
O. Office Supplies and Equipment	1.00	lot		
GRAND TOTAL COST OF PROJECT		**P**		**-**
SAY, ABC		**P**		**6,000,000.00**

Project Title : **REHABILITATION OF BENEFICIAL MICRO-ORGANISM BUILDING (BMO)**
ABC : **Php 6,000,000.00**
Location : **LGAREC, La Carlota City, Negros Occidental**
Completion Period : **120 Calendar Days**

PROGRAM OF WORKS AND DETAILED ESTIMATES WITH COST BREAKDOWN

Item No.	Work Description	Qty.	Unit	Rate	Direct Cost		Total Direct Cost	Indirect Cost			Total Indirect Cost	Total Amount	Unit Cost
					Materials	Labor		OCM	Contractor's Profit	VAT			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
					(5X3)	(40% of 6)	(6+7)	(10% of 8)	(10% of 8)	(7% of 8)	(9+10+11)	(8+12)	(13/3)
A.	**Mobilization and Demobilization**	1.00	lot										
	Sub-Total												
B.	**Clearing, chipping, removal, demolition works of existing structure**	1.00	lot										
		1.00	lot										
	Sub-Total												
C.	**Earth Moving Works**	1.000	lot										
	Excavation works	1.00	lot										
	Sub-Total												
D.	**Concrete and Masonry Works including plastering**	1.000	lot										
	Portland Cement	770.00	bags										
	Washed Sand	53.00	cu.m.										
	Gravel, 3/4	61.00	cu.m.										
	Gravel Bedding	32.00	cu.m.										
	Filling Materials	50.00	cu.m.										
	Concrete Hollow Blocks, 4"	4,500.00	pcs										
	Deformed Steel Bars, 16mm Ø x 6m, Grade 40	266.00	lgth										
	Deformed Steel Bars, 10mm Ø x 6m Grade 40	775.00	lgth										
	#16 G.I. Tie wire	6.00	rolls										
	Plywood, ordinary 1/4"	20.00	sht										
	Rough Lumber, 2" x 2" x 8'	100.00	lgth										
	Assorted CWNails	2.00	box										
	1-Bagger Mixer	10.00	days										
	Compactor, plate	10.00	days										
	Sub-Total												
E.	**Roof Framing and Roofing Works including gutters**	1.000	lot										
	C-Purlins, 2" x 4" x 6m #14, G.I.	101.00	length										
	C-Purlins, 2" x 6" x 6m #14, G.I.	77.00	length										
	Metal Primer	8.00	gals										
	Enamel Paint, gray	8.00	gals										
	Paint Thinner	2.00	gals										
	Baby Roller with pan	4.00	sets										
	Paint Brush, 2"	4.00	pcs										
	0.5mm thick, long span rib type roofing, pre-painted, green	340.00	ln.m										
	0.4mm thick x 18" Ridge roll, pre-painted, GA #26	35.00	pcs										
	0.4mm thick plain sheet fascia board, pre-painted	34.00	units										
	0.4mm thick gutter, pre-painted	34.00	units										
	Cutting Disc, 4"	5.00	box										
	Cutting Disc, 14"	10.00	pcs										
	Blind Rivets, 1000 pcs/box	1.00	box										
	Waterproofing Sealant	1.00	gals										
	Texscrew, 2", 1000pcs/box	2.00	box										
	Angle Bar, 1" x 1" x 6m, 3mm thck	26.00	length										
	DSB 10mm x 6m	55.00	length										
	Welding Rod	30.00	kgs.										
	PVC Downspout Adapter, 3"	16.00	pcs										

	uPVC Pipe, orange 3" dia. X 3 m	32.00	length										
	uPVC Coupling, elbow, 3" dia.	48.00	pcs										
	PVC Solvent, 400cc	1.00	can										
	Sub-Total												
F.	**Ceiling Works**	**1.000**	**lot**										
	Wall Angle	65.00	length										
	Metal Furring, 2"	190.00	length										
	Metal Furring, 2"	190.00	length										
	W-Clip	900.00	pcs										
	Metal Screw, 1/2"	5.00	box										
	Ficemboard Cement	90.00	sht										
	DSB 10mm x 6m	55.00	length										
	PVC Panel, double groove, 10" x 3m x 8mm	100.00	pcs										
	PVC Panel End Moulding J-clip, 3m x 8mm	48.00	pcs										
	PVC Panel Center Moulding H-clip, 3m x 8mm	3.00	pcs										
	Blind Rivets, 1000 pcs/box	2.00	box										
	Paint, Latex, white	44.00	gals										
	Concrete Nail, 1"	5.00	kgs.										
	Skimcoat, super fine, 20kg/bag	20.00	bgs										
	Wall Cornice, half-moon shape,1/2" x 3m, brown	65.00	light										
	Roller with Pan, 12"	5.00	pcs										
	Paint brush, 4"	5.00	pcs										
	Sub-Total												
G.	**Tiling Works**	**1.000**	**lot**										
	Tiles, 300mm x 300mm	2,320.00	pcs										
	Tiles, 300mm x 300mm, non-skid	42.00	pcs										
	Tiles, 300mm x 300mm, smooth	124.00	pcs										
	Tiles, 600mm x 600mm, non-skid	330.00	pcs										
	Tile Adhesive	75.00	bags										
	Tile Grout	20.00	kgs.										
	Granite Slab, 0.6m x 1.2m, 1" thck	9.00	pcs										
	Sub-Total												
H.	**Doors and Windows including installations**	**1.000**	**lot**										
	Glass Door, frameless Swing, tempered, 1.8m x 2.1m x atleast10mm thick	1.00	sets										
	Glass Door, Double Sliding, tempered, 2.0m x 2.1m x 6mm thick	3.00	sets										
	Hardwood Swing Door, 0.9m x 2.1m	6.00	sets										
	uPVC Flush Door, 0.6m x 2.1m	2.00	sets										
	Glass Window, sliding, tempered, 2.4m x 1.2m	4.00	sets										
	Glass Window, sliding, tempered, 1.8m x 1.2m	8.00	sets										
	Glass Window, sliding, tempered, 1.8m x 0.6m	4.00	sets										
	Glass Window, fix, tempered, 0.7m x 2.1m	2.00	sets										
	Glass Window, fix, tempered, 0.5m x 2.1m	2.00	sets										
	Awning Glass Window, tempered, 0.4m x 0.4m	2.00	sets										
	Sub-Total												

I.	**Electrical Works**	**1.000**	**lot**										
	THHN Wire, 3.5mm2	1.50	roll										
	THHN Wire, 5.5mm2	2.50	roll										
	THHN Wire, 2.0mm2	11.00	roll										
	Panel Board Box 2Pole Plug-in,16 Branches, including breakers, heavy duty	1.00	units										
	Service entrance set, (1 1/4" pipe, cap, 38mm2 line, etc.)	1.00	sets										
	Ceiling Downlight, square, 6", LED, 14w	6.00	pcs										
	Ceiling Downlight, square, 6", LED, 25w	17.00	pcs										
	Convenience outlet, 2-gang, universal	12.00	pcs										
	Switch, 2-Gang	7.00	pcs										
	Switch, 1-Gang	6.00	gals										

	Flexible Hose	2.00	roll										
	PVC Pipe, 1/2", Orange	78.00	lgth										
	PVC Long Elbow, 1/2"	50.00	pcs										
	Electrical Tape	10.00	roll										
	Utility Box	18.00	pcs										
	Junction Box	23.00	pcs										
	Aircon Outlet	6.00	pcs										
	Sub-Total												
J	**Electrical Equipment including installation**	**1.000**	**lot**										
	Airconditioning Unit, Window Type, 2Hp	4.00	units										
	Airconditioning Unit, Split Type, 2Hp	2.00	units										
	Sub-Total												
K.	**Plumbing and Sanitary Works**	**1.000**	**lot**										
	uPVC Pipe, orange 3" dia. X 3 m	15.00	length										
	uPVC Pipe, blue, 1/2" dia. X 3m	5.00	length										
	uPVC Pipe, blue, 3/4" dia. X 3m	15.00	length										
	uPVC Wye, orange, 3" dia	5.00	pcs										
	uPVC Elbow, blue, 1/2" dia.	6.00	pcs										
	uPVC Coupling, blue, 1/2" dia.	6.00	pcs										
	uPVC Tee, blue, 3/4" x 1/2" x 3/4" dia.	4.00	pcs										
	uPVC Coupling, orange, 3" dia.	4.00	pcs										
	Clean out, 3" dia PVC	2.00	pcs										
	PVC Solvent, 400cc	2.00	can										
	Water Closet with complete accessories	1.00	sets										
	Lavatory with complete accessories	4.00	sets										
	Floor Drains, metal	4.00	units										
	Sub-Total												
L.	**Painting Works(Walls)**	**1.000**	**lot**										
	Paint, Exterior, Water Base, Beige	16.00	gals										
	Paint, Interior, Water Base, Off-white	30.00	gals										
	Wall Putty	3.00	pail										
	Skimcoat	20.00	bgs										
	Roller with pan, 12"	6.00	sets										
	Paint Brush, 4"	6.00	pcs										
	Paint Brush, 2"	6.00	pcs										
	Sub-Total												
M.	**Septic Vault Works**	**1.000**	**lot**										
	Septic Vault with complete accessories	1.00	lot										
	Sub-Total												

N.	**Cabinets**	**1.000**	**lot**										
	Under Sink Cabinets, 0.6m width x 11.8m total lenghts x 0.9m height(1/2" marine plywood painted with end user specified color and 1/2" x 1 1/2" Hard wood frame treated with anti-termite complete with hinges and locks)	1.00	lot										
	Sub-Total												
O.	**Office Supplies and Equipment**	**1.000**	**lot**										
	Office Table with chair(executive), L-shape	1.00	sets										
	Refrigerator, 2 doors, 15 cu.ft	3.00	units										
	ConferenceTable with chairs, 8 seaters	1.00	sets										
	DiningTable with chairs, 6 seaters	1.00	sets										
	Steel Cabinet, Lateral, 2 layers	6.00	units										
	Foldable Table, 6 seaters with chairs	2.00	units										
	Pressure cooker, non-electric, 41 quarts with burner	2.00	sets										
	Steel Rack, 6 layers	4.00	units										
	Sofa Set, 3 pcs per set	1.00	sets										
	Plastic chairs	12.00	pcs										
	Skaker with complete set of accessories, as per sample	4.00	sets										
	Sub-Total				-	-	-	-	-	-	-	-	-
	TOTAL ESTIMATED PROJECT COST				-	-	-	-	-	-	-	-	-

Lot B. Rehabilitation Crop Research Building No. 2 (Phase 1)

Project Title : **REHABILITATION OF CRB#2 (Phase 1)**
ABC : **Php 4,150,000.00**
Location : **LGAREC, La Carlota City, Negros Occidental**
Completion Period : **90 Calendar Days**

BILL OF QUANTITY

Item/Description	Qty.	Unit	Unit Cost	Amount
A. Mobilization and Demobilization	1.00	lot		
B. Clearing, chipping, removal debris and dirts & demolition works	1.00	lot		
C. Concrete and Masonry Works including plastering (wall partitions, beam and roof deck)	1.00	lot		
D. Roof Framing and Roofing Works	1.00	lot		
E. Ceiling Works Works	1.00	lot		
F. Door and windows including installations	1.00	lot		
G. Electrical Works	1.00	lot		
H. Plumbing Works	1.00	lot		
I. Tiling Works	1.00	lot		
J. Painting Works	4,130.00	sq.m.		
GRAND TOTAL COST OF PROJECT		**P**		**-**
SAY, ABC		**P**		**4,150,000.00**

Project Title : REHABILITATION OF CRB#2 (Phase 1)
ABC : Php 4,150,000.00
Location : LGAREC, La Carlota City, Negros Occidental
Completion Period : 90 Calendar Days

PROGRAM OF WORKS AND DETAILED ESTIMATES WITH COST BREAKDOWN

Item No.	Work Description	Qty.	Unit	Rate	Direct Cost		Total Direct Cost	Indirect Cost			Total Indirect Cost	Total Amount	Unit Cost
					Materials	Labor		OCM	Contractor's Profit	VAT			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
					(5X3)	(40% of 6)	(6+7)	(10% of 8)	(10% of 8)	(7% of 8)	(9+10+11)	(8+12)	(13/3)
A.	Mobilization and Demobilization	1.00	lot										
	Sub-Total												
B.	Clearing, chipping, removal debris and dirts & demolition works	1.00	lot										
		1.00	lot										
	Sub-Total												
C.	Concrete and Masonry Works including plastering(wall partitions, beam and roof deck-50mm thick)	1.000	lot										
	Portland Cement	95.00	bags										
	Washed Sand	6.50	cu.m.										
	Gravel	10.50	cu.m.										
	Concrete Hollow Blocks, 4"	106.00	pcs										
	Deformed Steel Bars, 10mm Ø	45.00	length										
	Deformed Steel Bars, 12mm Ø	50.00	length										
	Waterproofing Cement	57.00	kgs.										
	Waterproofing Membrane, 25kg/pail	10.00	pail										
	#16 G.I. Tie wire	15.00	kgs.										
	Plywood, ordinary 1/4"	10.00	sht										
	Lumber, 2" x 2" x 8'	50.00	lgth										
	Assorted CWNails	8.00	kgs.										
	Sub-Total												
D.	Roof Framing and Roofing Works	1.000	lot										
	C-Purlins, 2" x 6" #14, G.I.	73.00	length										
	C-Purlins, 2" x 4" #14, G.I.	135.00	length										
	DSB, 10mmØ x 6m waving	30.00	length										
	Metal Primer	25.00	gals										
	Paint Thinner	5.00	gals										
	0.5mm thick, long span rib type roofing, pre-painted	1,020.00	ln.m										
	0.5mm thick x 18" Ridge roll, pre-painted	15.00	pcs										
	0.5mm thick G.I. sheet End flashing, pre painted	10.00	sht										
	Fascia Board, bended G.I. sheet	11.00	sht										
	Texscrew, 2", 100 pcs/box	10.00	box										
	Welding Rod	25.00	box										
	Cutting Disc, 4"	5.00	box										
	Cutting Disc, 14"	10.00	pcs										
	Roofing Sealant	1.00	gals										
	#16 G.I. Tie wire	5.00	kgs.										
	Assorted CWNails	5.00	kgs.										
	Accessories	1.00	lot										
	Sub-Total												
E.	Ceiling Works	1.000	lot										
	Wall Angle	270.00	length										
	Metal Furring, double, 19mm x 50mm x 5m, 0.6mm thick	545.00	length										
	Carrying Chanel, 12mm x 38mm x 5m, 1.0mm thick	145.00	length										
	W-Clip	1,770.00	pcs										
	Metal Screw, 1/2"	4.00	box										
	Ficemboard Cement	125.00	sht										
	Paint, latex, Off-White	18.00	gals										

	Concrete Nail, 1"	2.00	kgs.										
	Blind Rivets	4.00	box										
	Skimcoat, 25kg/bg	30.00	bgs										
	Wall Cornice, wooden, quarter-moon shape,1/2" x 3m, brown	260.00	light										
	Roller with Pan, 12"	5.00	pcs										
	Paint brush, 3"	5.00	pcs										
	Accessories	1.00	lot										
	Sub-Total												
F.	**Doors and Windows including installations**	**1.000**	**lot**										
	Glass Door, double, swing, aluminum farmed, tempered, 1.7m x 2.1m x 6mm thick with complete accessories	2.00	sets										
	Glass Door, swing, aluminum farmed, tempered, 1.0m x 2.27m x 6mm thick with complete accessories	1.00	sets										
	Glass Door, swing, aluminum farmed, tempered, 1.0m x 2.10m x 6mm thick with complete accessories	1.00	sets										
	Glass Door, swing, tempered, 0.9m x 2.0m x 6mm thick with complete accessories	4.00	sets										
	Panel Door, 0.95m x 2.1m with complete accessories	2.00	sets										
	Flush Door, 0.8m x 2.05m with complete accessories	2.00	sets										
	Flush Door, 0.8m x 2.10m with complete accessories	1.00	sets										
	Flush Door, 0.83m x 2.10m with complete accessories	2.00	sets										
	Flush Door, 0.95m x 2.05m with complete accessories	1.00	sets										
	Flush Door, 0.8m x 1.6m with complete accesssories	6.00	sets										
	Flush Door, double, 1.42m x 2.3m with complete accesssories	1.00	sets										
	Glass Window, sliding, tempered, 2.8m x 1.2m	16.00	sets										
	Glass Window, sliding, tempered, 1.2m x 1.2m	5.00	sets										
	Glass Window, sliding, tempered, 1.8m x 0.6m	2.00	sets										
	Glass Window, sliding, tempered, 0.4m x 0.4m	1.00	sets										
	Repair of Cabinets(Frames, covers and accessories)	1.00	lot										
	Sub-Total												
G.	**Electrical Works**	**1.000**	**lot**										
	THW Wire, 3.5mm2	10.00	roll										
	Ceiling light, round, 6", LED, 14w	63.00	pcs										
	Flourescent Lamp, LED, 20w	10.00	pcs										
	Convenience Outlet, 2-gang, universal, 100W	19.00	pcs										
	Switch, 2-Gang	30.00	pcs										
	Switch, 1-Gang	17.00	pcs										
	Flexible Hose	3.00	roll										
	Junction box	50.00	pcs										
	Utility box	40.00	pcs										
	Electrical Tape, Big	10.00	roll										
	PVC Pipe, 1/2", Orange	150.00	lengths										
	PVC Long Elbow, 1/2"	100.00	pcs										
	Aircon Outlet	5.00	pcs										
	Sub-Total												
H.	**Plumbing Works(Downspouts)**	**1.000**	**lot**										
	PVC pipes and fittings and other accessories	1.00	lot										
	Sub-Total												
I.	**Tiling Works**	**1.000**	**lot**										
	Ceramic Tiles, 600mm x 600mm	581.00	pcs										
	Adhesive	10.00	bgs										
	Chipping and removal of debris and dirts	1.00	lot										
	Sub-Total												
J.	**Painting Works(Walls)**	**4,130.000**	**sq.m.**										
	Exterior/Interior, Water Base Masonry Paint	207.00	gals										
	Roller with pan, 12"	6.00	sets										
	Paint Brush, 4"	6.00	pcs										
	Paint Brush, 2"	6.00	pcs										
	Sub-Total												
	TOTAL ESTIMATED PROJECT COST												-

Lot C. Rehabilitation of Crop Research Building No. 3

Project Title : **REHABILITATION OF CRB#3 (Phase 2)**
ABC : **Php 4,000,000.00**
Location : **LGAREC, La Carlota City, Negros Occidental**
Completion Period : **90 Calendar Days**

BILL OF QUANTITY

Item/Description	Qty.	Unit	Unit Cost	Amount
A. Mobilization and Demobilization	1.00	lot	-	-
B. Clearing, chipping, removal & demolition works	1.00	lot	-	-
C. Concrete and Masonry Works including plastering (wall partitions, concrete gutter and parapet wall)	1.00	lot	-	-
D. Roof Framing and Roofing Works	1.00	lot	-	-
E. Ceiling Works Works	1.00	lot	-	-
F. Door and windows including installations	1.00	lot	-	-
G. Electrical Works	1.00	lot	-	-
H. Plumbing Works	1.00	lot	-	-
I. Painting Works	1.00	lot	-	-
				-
GRAND TOTAL COST OF PROJECT		**P**		**-**
SAY, ABC		**P**		**4,000,000.00**

Project Title : REHABILITATION OF CRB#3 (Phase 2)
ABC : Php 4,000,000.00
Location : LGAREC, La Carlota City, Negros Occidental
Completion Period : 90 Calendar Days

PROGRAM OF WORKS AND DETAILED ESTIMATES WITH COST BREAKDOWN

Item No.	Work Description	Qty.	Unit	Rate	Direct Cost		Total Direct Cost	Indirect Cost			Total Indirect Cost	Total Amount	Unit Cost
					Materials	Labor		OCM	Contractor's Profit	VAT			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
					(5X3)	(40% of 6)	(6+7)	(10% of 8)	(10% of 8)	(7% of 8)	(9+10+11)	(8+12)	(13/3)
A.	**Mobilization and Demobilization**	1.00	lot										
	Sub-Total												
B.	**Clearing, chipping, removal & demolition works**	1.00	lot										
		1.00	lot										
	Sub-Total												
C.	**Concrete and Masonry Works including plastering(wall partitions, concrete gutter and parapet wall)**	1.000	lot										
	Portland Cement	100.00	bags										
	Washed Sand	8.00	cu.m.										
	Gravel	8.00	cu.m.										
	Concrete Hollow Blocks, 4"	510.00	pcs										
	Deformed Steel Bars, 10mm Ø	90.00	length										
	Deformed Steel Bars, 12mm Ø	15.00	length										
	Waterproofing Cement	61.00	kgs.										
	Waterproofing Compound, 16 liters	5.00	pail										
	#16 G.I. Tie wire	5.00	kgs.										
	Plywood, ordinary 1/4"	10.00	roll										
	Lumber, 2" x 2" x 8'	40.00	lgth										
	Assorted CWNails	8.00	kgs.										
	Sub-Total												
D.	**Roof Framing and Roofing Works**	1.000	lot										
	C-Purlins, 2" x 6" #14, G.I.	67.00	length										
	C-Purlins, 2" x 4" #14, G.I.	177.00	length										
	DSB, 10mmØ x 6m waving	40.00	length										
	Metal Primer	10.00	gals										
	Metal Primer	10.00	gals										
	Paint Thinner	2.00	gals										
	0.5mm thick, long span rib type roofing, pre-painted	775.00	ln.m										
	0.5mm thick x 18" Ridge roll, pre-painted	15.00	pcs										
	0.5mm thick G.I. sheet Wall flashing, pre painted	56.00	sht										
	Texscrew, 2", 100 pcs/box	15.00	box										
	Welding Rod	25.00	box										
	Cutting Disc, 4"	5.00	box										
	Cutting Disc, 14"	10.00	pcs										
	Roofing Sealant	1.00	gals										
	#16 G.I. Tie wire	4.00	kgs.										
	Assorted CWNails	5.00	kgs.										
	Sub-Total												
E.	**Ceiling Works**	1.000	lot										
	Wall Angle	240.00	length										
	Metal Furring, 2" x 2"	764.00	length										
	Carrying angle, 2" x 2"	764.00	length										
	W-Clip	4,584.00	pcs										
	Metal Screw, 1/2"	10.00	box										

	Ficemboard Cement	382.00	sht										
	Paint, latex, Off-White	47.00	gals										
	Concrete Nail, 1"	3.00	kgs.										
	Blind Rivets	5.00	box										
	Skimcoat, super fine, 20kg/bg	47.00	bgs										
	Wall Cornice, half-moon shape,1/2" x 3m, brown	504.00	lght										
	Roller with Pan, 12"	5.00	pcs										
	Paint brush, 3"	5.00	pcs										
	Sub-Total												
F.	**Doors and Windows including installations**	**1.000**	**lot**										
	Glass Door, aluminum frame, swing, tempered, 0.7m x 2.1m x 6mm thick with complete accessories	1.00	sets										
	Glass Window, fix, aluminum frame, tempered, 3.4m x 1.85m	1.00	sets										
	Glass Window, fix, aluminum frame, tempered, 1m x 1.85m	2.00	sets										
	Glass Window, fix, aluminum frame, tempered, 4.4m x 1.85m	1.00	sets										
	Glass Window, fix, aluminum frame, tempered, 2.56m x 1.85m	1.00	sets										
	Glass Window, fix, aluminum frame, tempered, 3.1m x 1.85m	2.00	sets										
	Glass Window, fix, aluminum frame, tempered, 0.7m x 0.74m	7.00	sets										
	Cabinet Cover including frames and hinges, 50 li.m. (height 0.74m x 0.56m), 1/2" marine plywood and 1 1/2" hardwood lumber	1.00	lot										
	Sub-Total												
G.	**Electrical Works**	**1.000**	**lot**										
	THHN Wire, 3.5mm2	5.00	roll										
	Ceiling Downlight, round, 6", LED, 18w	100.00	pcs										
	Flourescent Lamp, LED, 36w	10.00	pcs										
	Convenience Outlet, 2-gang, universal	50.00	pcs										
	Switch, 3-Gang	4.00											
	Switch, 2-Gang	14.00	pcs										
	Switch, 1-Gang	6.00	pcs										
	Flexible Hose	3.00	roll										
	Junction box	50.00	pcs										
	Utility box	92.00	pcs										
	Electrical Tape, Big	5.00	roll										
	PVC Pipe, 1/2", Orange	100.00	lengths										
	PVC Long Elbow, 1/2"	40.00	pcs										
	Aircon Outlet	12.00	pcs										
	Sub-Total												
H.	**Plumbing Works**	**1.000**	**lot**										
	PVC Pipe, 6", series 600	5.00	lengths										
	PVC Tee, 6"	4.00	pcs										
	PVC Elbow, 6"	3.00	pcs										
	PVC Coupling, 6"	4.00	pcs										
	PVC Solvent	1.00	can										
	Sub-Total												
I.	**Painting Works(Walls)**	**1.000**	**lot**										
	Paint, Exterior, Water Base, Beige	112.00	gals										
	Paint, Interior, Water Base, Off-white	70.00	gals										
	Roller with pan, 12"	6.00	sets										
	Paint Brush, 4"	6.00	pcs										
	Paint Brush, 2"	6.00	pcs										
	Sub-Total												
	TOTAL ESTIMATED PROJECT COST												-

Section IX. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

The prescribed documents in the checklist are mandatory to be submitted in the Bid, but shall be subject to the following:

a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or

b. any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

The BAC shall be checking the submitted documents of each Bidder against this checklist to ascertain if they are all present, using a non-discretionary "pass/fail" criterion pursuant to Section 30 of the 2016 revised IRR of RA No. 9184.

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) in accordance with Section 8.5.2 of the IRR;

In case any of the eligibility documents per Annex A of the PhilGEPS Certificate of Registration is expired, all copies (current and valid) of SEC/DTI Registration, Mayor's Permit, Tax Clearance, and Audited Financial Statements shall be submitted along with the PhilGEPS Certificate.

Technical Documents

☐ (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**

☐ (c) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**

☐ (d) Special PCAB License in case of Joint Ventures **and** registration for the type and cost of the contract to be bid; **and**

☐ (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission **or** original copy of Notarized Bid Securing Declaration; **and**

(f) Project Requirements, which shall include the following:

☐ a. Organizational chart for the contract to be bid;

☐ b. List of contractor's key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;

☐ c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**

☐ (g) Original duly signed Omnibus Sworn Statement (OSS) **and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all

members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

(h) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC) and to include the latest Audited Financial Statements.

Class "B" Documents

(i) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence **or** duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

II. FINANCIAL COMPONENT ENVELOPE

(j) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

(k) Original of duly signed Bid Prices in the Bill of Quantities; **and**

(l) Duly accomplished Detailed Estimates Form, including a summary shee indicating the unit prices of construction materials, labor rates, and equipmen rentals used in coming up with the Bid; **and**

(m) Cash Flow by Quarter.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