

PHILIPPINE BIDDING DOCUMENTS

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

**PROVISION OF LABOR, MATERIALS,
EQUIPMENT RENTAL AND OTHER
INCIDENTALS NEEDED FOR THE
CONSTRUCTION OF ILOCOS SUR
RESEARCH CENTER MULTI-CROP
WAREHOUSE CUM OFFICE**

IB No.: DA-RFO 1-2025-INFRA-030

**Sixth Edition
July 2020**

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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



Republic of the Philippines
DEPARTMENT OF AGRICULTURE
 Regional Field Office No. 1
 Aguila Road, Sevilla, City of San Fernando, La Union
 Telephone No. (072) 242 1045/1046



INVITATION TO BID FOR THE PROVISION OF LABOR, MATERIALS, EQUIPMENT RENTAL AND OTHER INCIDENTALS NEEDED FOR THE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE

1. The Department of Agriculture - Regional Field Office 1 (DA-RFO 1), through the GAA FY 2025 intends to apply the sum of **Forty Million Five Hundred Ninety-Four Thousand Eighty-Four Pesos and Sixty-Two Centavos (PhP40,594,084.62)** being the Approved Budget for the Contract (ABC) to payment under the contract for the **PROVISION OF LABOR, MATERIALS, EQUIPMENT RENTAL AND OTHER INCIDENTALS NEEDED FOR THE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE** with project identification number **DA-RFO 1-2025-INFRA-030**. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The DA-RFO 1 now invites bids for the above procurement project with the following details and specifications:

DETAILS AND SPECIFICATIONS		
Project Location: DA-ISReC, San Juan, Ilocos Sur		
Project Description: Construction of Warehouse with Mezzanine; Installation of ACU, 50kVA transformer and Fire Safety Equipment Installation of Booster Pump; Installation of Fire Exit; and Installation of 30KW/KVA On-Grid Solar System		
Scope of work:		
Description	Qty	Unit
I. GENERAL REQUIREMENTS	1.00	ls
II. STAGING AREA	1.00	ls
III. OCCUPATIONAL SAFETY AND HEALTH	1.00	ls
IV. MOBILIZATION AND DEMOBILIZATION	1.00	lot
V. SOIL POISONING	22.00	L
VI. EARTHWORKS	3,394.30	cu.m.
VII. REBAR WORKS	37,060.73	kgs
VIII. FORM AND SCAFFOLDS	105.60	sq.m.
IX. CONCRETE WORKS (CLASS A)	477.77	cu.m.
X. STEEL WORKS	170,026.06	kgs
XI. TINSMITHRY WORKS	1,860.00	sq.m.
XII. CEILING WORKS	294.75	sq.m.
XIII. STEEL RAILINGS	1.00	lot
XIV. MASONRY WORKS (Plastering - 20mm thick)	537.80	sq.m.
XV. POLYURETHANE SANDWICH PANEL	796.00	sq.m.

XVI. CURTAIN WALL	93.60	sq.m.
XVII. PAINTING WORKS	930.00	sq.m.
XVIII. DOORS AND WINDOWS	64.00	set
XIX. ELECTRICAL WORKS & FIRE SAFETY EQUIPMENT	1.00	lot
XX. RAIN WATER DRAINING SYSTEM	1.00	lot
XXI. PLUMBING WORKS	1.00	lot
XXII. ROTARY VENTS & 30KW/KVA ON-GRID SOLAR SYSTEM	1.00	lot
XXIII. TILING WORKS	167.70	sq.m.
XXIV. MANUAL FORK LIFT (2 Metric Ton Capacity) with MOBILE LOADING DOCK RAMP (10 Metric Ton Capacity)	3.00	unit

MINIMUM TECHNICAL PERSONNEL REQUIRED:

- 1 Project Engineer
- 1 First Aider
- 1 Foreman
- 6 Skilled Workers
- 15 Unskilled Workers

MINIMUM EQUIPMENT REQUIRED:

- 1 Transit Mixer
- 1 Crawler Type 0.80 cu.m. Backhoe
- 1 Crawler Type 60MT Crane
- 2 Welding Machine
- 2 Cut-off Machine
- 1 Bar Bender
- 1 Concrete Vibrator (3.5HP)
- 1 Plate Compactor
- 1 Set of Hand Tools
- 1 One-Bagger Mixer
- 1 Grinder

Completion of the Works is within **two hundred eighty (280) calendar days**. 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).

3. Bidding will be conducted through open competitive bidding procedures using a non-discretionary "pass/fail" criterion as specified in the Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184.

Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least seventy-five percent (75%) interest or outstanding capital stock belonging to citizens of the Philippines.

4. Prospective bidders may obtain further information from and inspect the Bidding Documents at the address given below during **office hours at 8:00 AM to 5:00 PM, Monday to Friday**.

Department of Agriculture - Regional Field Office 1
Aguila Rd., Sevilla, City of San Fernando, La Union

5. A complete set of Bidding Documents may be acquired by interested Bidders from **April 14, 2025 to May 5, 2025** from the address given and websites below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **Php25,000.00**. The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person, by facsimile, or through electronic means.
6. The **DA-RFO 1** will hold a Pre-Bid Conference on **22 April 2025, 1:00 PM** at DA-RFO 1, 5th Floor Conference Room, Aguila Road, Sevilla, City of San Fernando, La Union, which shall be open to prospective bidders.
7. Bids must be duly received by the BAC Secretariat through manual submission at the office address indicated above on or before **05 May 2025, 9:00 AM**. **Late bids shall not be accepted.**
8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB Clause 14**.
9. **Bid opening** shall be on **05 May 2025, 9:00 AM** at DA-RFO 1, 5th Floor Conference Room, Aguila Road, Sevilla, City of San Fernando, La Union. Bids will be opened in the presence of the bidders or their authorized representatives.
10. **ADDITIONAL INSTRUCTIONS TO BIDDERS:**
 - a. The bidders or their duly authorized representatives may attend the bid opening;
 - b. In case a representative will be attending the Bid Opening, a Special Power of Attorney (SPA), Secretary's Certificate, Board Resolution or any other forms of authorization (notarized), as the case may be, together with the Company-issued Identification Card or any valid ID must be presented upon submission of the bid proposal at the BAC Secretariat. The name/title of the project must be indicated in the authorization or SPA.
 - c. Each Bidder shall submit one copy of the first and second components of its Bid. Bidders shall submit their bids with proper index tabbing using the forms specified in the Bidding Documents in two (2) separate sealed bid envelopes, and which shall be submitted simultaneously;

The first component which is the Technical Eligibility requirements must be soft-bound, marked with the **name of the contract** and its **IB No., name and address of the bidder**, and enclosed in an envelope, sealed with signature and marked with the **name of the contract, name and address of the bidder**, addressed to the **BIDS AND AWARDS COMMITTEE (BAC) DA RFO-1 CITY OF SAN FERNANDO, LA UNION**, the **specific Identification No.** and the warning **"DO NOT OPEN BEFORE..."** the date and time for the bid opening.

The second component being the Financial requirements may be soft-bound/fastened in a folder, marked with the **name of the contract** and its **IB No., name and address of the bidder**, and enclosed in an envelope, sealed with signature and marked with the **name of the contract, name and address of the bidder**, addressed to the **BIDS AND AWARDS COMMITTEE (BAC) DA RFO-1 CITY OF SAN FERNANDO, LA UNION**, the **specific Identification No.** and the warning **"DO NOT OPEN BEFORE..."** the date and time for the bid opening.

The Technical and Financial Requirement each in separate envelopes, shall be enclosed in a mother envelope with the same sealing and markings.

Non-compliance with index tabbings shall not be a ground for outright disqualification or declaration of ineligibility. The improper index tabbings must be duly acknowledged by the bidder/representative and be subject to the bid evaluation and post-qualification of the Technical Working Group (TWG) as to their substance.

- d. All **documents** in the **Financial Requirements envelope** must be **duly signed and/or initialed**, as needed, by the bidder/authorized representative on **EACH AND EVERY PAGE** thereof.
11. The **DA-RFO 1** 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 Section 41 of the 2016 Revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
12. For further information, please refer to:
DENNIS I. TACTAC, ABE
Chairperson, Bids and Awards Committee
Department of Agriculture - Regional Field Office 1
Aguila Road, Sevilla, City of San Fernando, La Union
Tel. No.:(072) 242/1045-46, Ext. 07
E-mail add: bacsec@ilocos.da.gov.ph
13. For downloading of Bidding Documents, you may visit the following websites:
DA-RFO1 Website: <https://ilocos.da.gov.ph/>
PhilGEPS Website: <https://www.philgeps.gov.ph/>

April 11, 2025

Approved by:

(Sgd.) GILBERT D. RABARA, DVM
Vice-Chairperson, Bids and Awards Committee

Invitation to Bid Identification No. DA-RFO 1-2025-INFRA-030

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, **Department of Agriculture - Regional Field Office 1 (DA-RFO 1)** invites Bids for the **PROVISION OF LABOR, MATERIALS, EQUIPMENT RENTAL AND OTHER INCIDENTALS NEEDED FOR THE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE** with Project Identification Number **DA-RFO 1-2025-INFRA-030**.

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 **GAA FY 2025** in the amount of **Forty Million Five Hundred Ninety-Four Thousand Eighty-Four Pesos and Sixty-Two Centavos (PhP40,594,084.62)**.

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:

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, **5th Floor Conference Room, Aguila Road, Sevilla, City of San Fernando, La Union** 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 PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 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:*

- a. 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 **September 5, 2025**. 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

Bid Data Sheet

ITB Clause																																					
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: CONSTRUCTION OF WAREHOUSE/MULTI-PURPOSE BUILDING																																				
7.1	N/A																																				
10.3	N/A																																				
10.4	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 Engineer</td><td>3 years</td><td>Construction Supervision</td></tr><tr><td>Foreman</td><td>2 years</td><td>Masonry/Carpentry</td></tr></table>	Key Personnel	General Experience	Relevant Experience	Project Engineer	3 years	Construction Supervision	Foreman	2 years	Masonry/Carpentry																											
Key Personnel	General Experience	Relevant Experience																																			
Project Engineer	3 years	Construction Supervision																																			
Foreman	2 years	Masonry/Carpentry																																			
10.5	The minimum major equipment requirements are the following: <table><tr><th>Equipment</th><th>Capacity</th><th>No. of Units</th></tr><tr><td>Transit Mixer</td><td></td><td>1</td></tr><tr><td>Crawler Type Backhoe</td><td>0.80 cu.m.</td><td>1</td></tr><tr><td>Crawler Type Crane</td><td>60MT</td><td>1</td></tr><tr><td>Welding Machine</td><td></td><td>2</td></tr><tr><td>Cut-off Machine</td><td></td><td>2</td></tr><tr><td>Bar Bender</td><td></td><td>1</td></tr><tr><td>Concrete Vibrator</td><td>3.5 HP</td><td>1</td></tr><tr><td>Plate Compactor</td><td></td><td>1</td></tr><tr><td>Set of Hand Tools</td><td></td><td>1</td></tr><tr><td>Mixer</td><td>one-bagger</td><td>1</td></tr><tr><td>Grinder</td><td></td><td>1</td></tr></table>	Equipment	Capacity	No. of Units	Transit Mixer		1	Crawler Type Backhoe	0.80 cu.m.	1	Crawler Type Crane	60MT	1	Welding Machine		2	Cut-off Machine		2	Bar Bender		1	Concrete Vibrator	3.5 HP	1	Plate Compactor		1	Set of Hand Tools		1	Mixer	one-bagger	1	Grinder		1
Equipment	Capacity	No. of Units																																			
Transit Mixer		1																																			
Crawler Type Backhoe	0.80 cu.m.	1																																			
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Plate Compactor		1																																			
Set of Hand Tools		1																																			
Mixer	one-bagger	1																																			
Grinder		1																																			
12	N/A																																				
15.1	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 Php811,881.69 bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than Php2,029,704.23 bid security is in Surety Bond.																																				
19.2	Partial bidis not allowed.																																				
20	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.																																				

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 other acceptable tools of project scheduling.
----	---

Section IV. General 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

Special Conditions of Contract

GCC Clause	
2	N/A
4.1	Schedule of construction in full shall start within <u>7 calendar days</u> from receipt of the Notice to Proceed
6	N/A
7.2	[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:] Fifteen (15) years
10	a. Dayworks are applicable at the rate shown in the Contractor's original Bid.
11.1	The Contractor shall submit the Program of Work (PERT-CPM, Construction Schedule, S-Curve and Construction Methods) to the Procuring Entity's Representative within 10 calendar days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is 10% of the 15% Advance Payment.
13	The amount of the advance payment is 15% of the Contract Price.
14	Materials and equipment delivered on the site but not completely put in place (Actual Accomplishment) shall <u>not</u> be included for payment.
15.1	The "as built" Drawings and/or operating and maintenance manuals shall be required prior to the final payment.
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is 10% of the final billing.

Section VI. Specifications

Section VII. Drawings

[Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section, or annexed in a separate folder.]

Section VIII. Bill of Quantities

Section IX. Checklist of Technical and Financial Documents

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;

Technical Documents

- (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- (c) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**
- (d) Special PCAB License in case of Joint Ventures; **and** registration for the type and cost of the contract to be bid; **and**
- (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission; **or**
Original copy of Notarized Bid Securing Declaration; **and**
- (f) Project Requirements, which shall include the following:
 - a. Organizational chart for the contract to be bid;
 - b. List of contractor’s key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
 - c. List of contractor’s major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**
- (g) Original duly signed Omnibus Sworn Statement (OSS); **and** if applicable, Original Notarized Secretary’s Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- (h) The prospective bidder’s computation of Net Financial Contracting Capacity (NFCC).

Class “B” Documents

- (i) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence; **or**
duly notarized statements from all the potential joint venture partners stating

that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

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 sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**
- (m) Cash Flow by Quarter.



BILL OF QUANTITIES

PROJECT NAME: CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE

PROJECT LOCATION: DA-ISReC SAN JUAN, ILOCOS SUR

PROJECT DESCRIPTION: Construction of Warehouse with Mezzanine; Installation of ACU, 50kVA transformer and Fire Safety Equipment; Installation of Booster Pump; Installation of Fire Exit; and Installation of 30KW/KVA On-Grid Solar System.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
I	GENERAL REQUIREMENTS	ls	1.00		
II	STAGING AREA	ls	1.00		
III	OCCUPATIONAL SAFETY AND HEALTH	ls	1.00		
IV	MOBILIZATION AND DEMOBILIZATION	lot	1.00		
V	SOIL POISONING	L	22.00		
VI	EARTHWORKS	cu.m	3,394.30		
VII	REBAR WORKS	kgs	37,060.73		
VIII	FORMS AND SCAFFOLDS	sq.m	105.60		
IX	CONCRETE WORKS (CLASS A)	cu.m.	477.77		
X	STEEL WORKS	kgs	170,026.06		
XI	TINSMITHRY WORKS	sq.m	1,860.00		
XII	CEILING WORKS	sq.m	294.75		
XIII	STEEL RAILINGS	lot	1.00		
XIV	MASONRY WORKS (Plaster - 20mm thick)	sq.m	537.80		
XV	POLYURETHANE SANDWICH PANEL	sq.m	796.00		
XVI	CURTAIN WALL	sq.m	93.60		
XVII	PAINTING WORKS	sq.m.	930.00		
XVIII	DOORS and WINDOWS	set	64.00		
XIX	ELECTRICAL WORKS & FIRE SAFETY EQUIPMENT	lot	1.00		
XX	RAIN WATER DRAINAGE SYSTEM	lot	1.00		
XXI	PLUMBING WORKS	lot	1.00		
XXII	ROTARY VENTS & 30KW/KVA ON-GRID SOLAR SYSTEM	lot	1.00		
XXIII	TILING WORKS	sq.m.	167.70		
XXIV	MANUAL FORK LIFT (2 Metric Ton Capacity) w/ MOBILE LOADING DOCK RAMP (10 Metric Ton Capacity)	unit	3.00		
GRAND TOTAL:					

NUMBER OF DAYS TO COMPLETE THE PROJECT: 280 Calendar Days

TOTAL AMOUNT OF BID (in words and figures): _____

Name in Print Company/Office/Firm

Full Name of Bidder/Authorize Representative

Address: _____

By: _____
Signature Over Printed Name

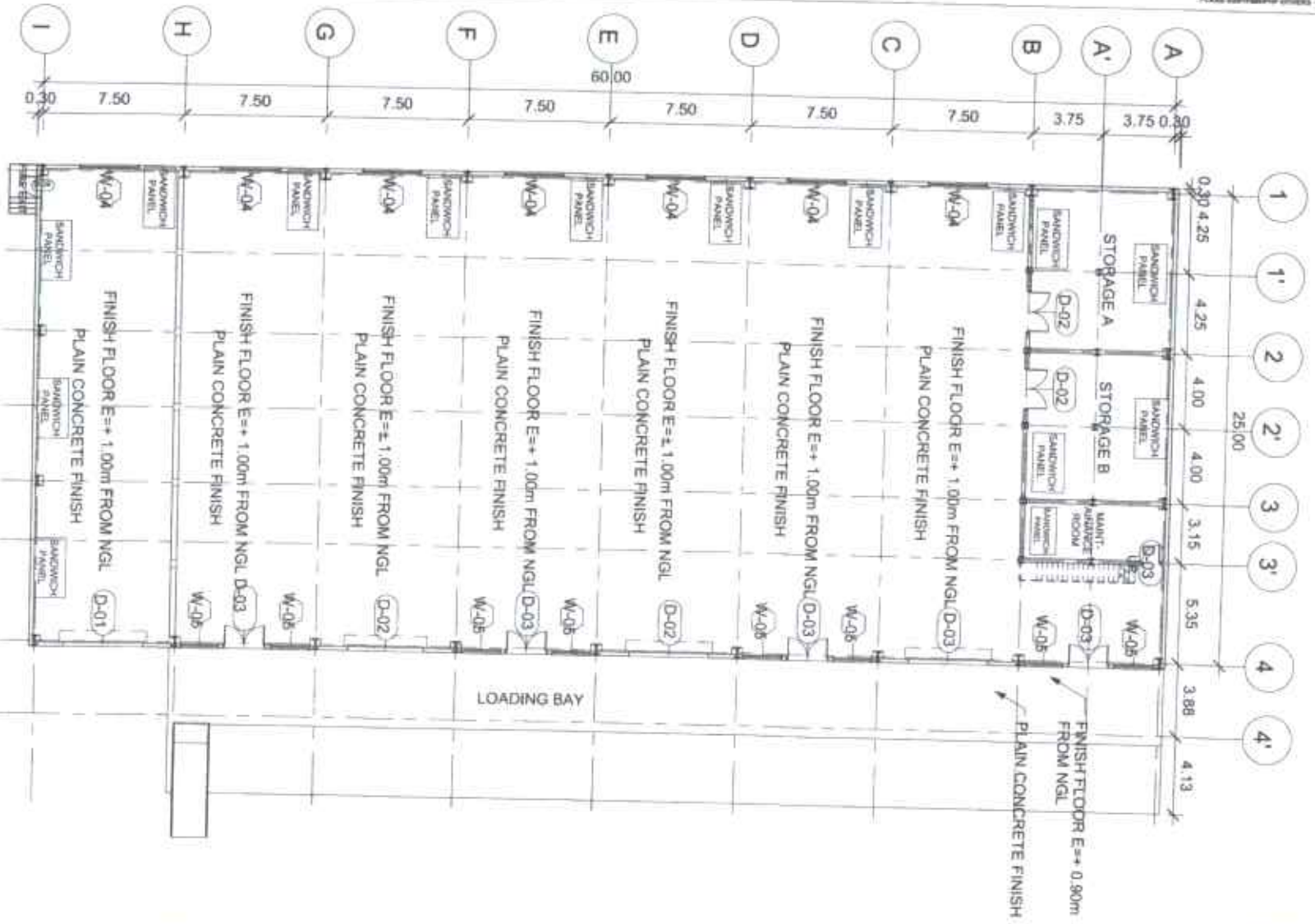
1 PERSPECTIVE
B1 A-01 NOT TO SCALE



2 VICINITY MAP
01 A-01 NOT TO SCALE

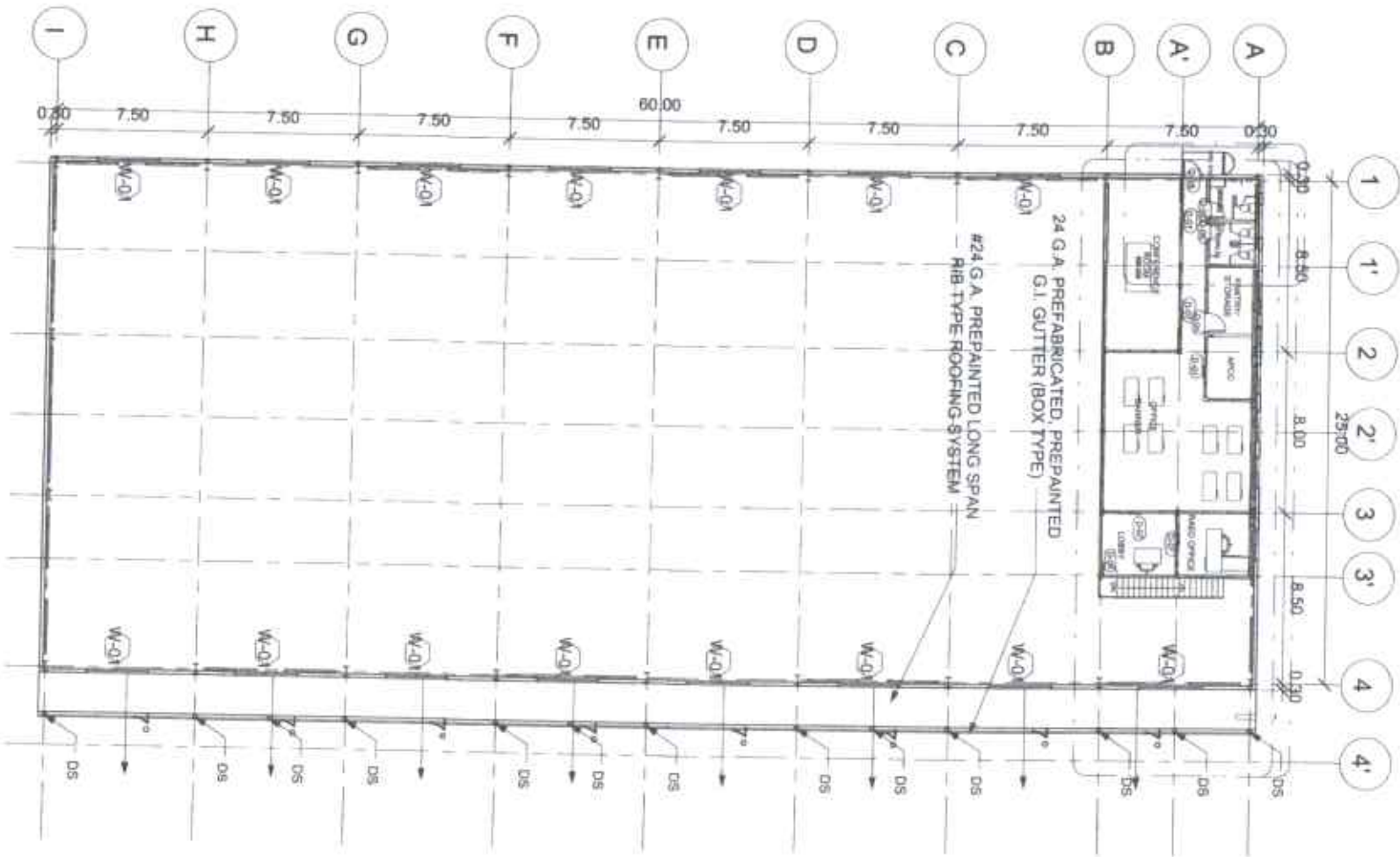


3 SITE DEVELOPMENT PLAN
01 A-01 NOT TO SCALE



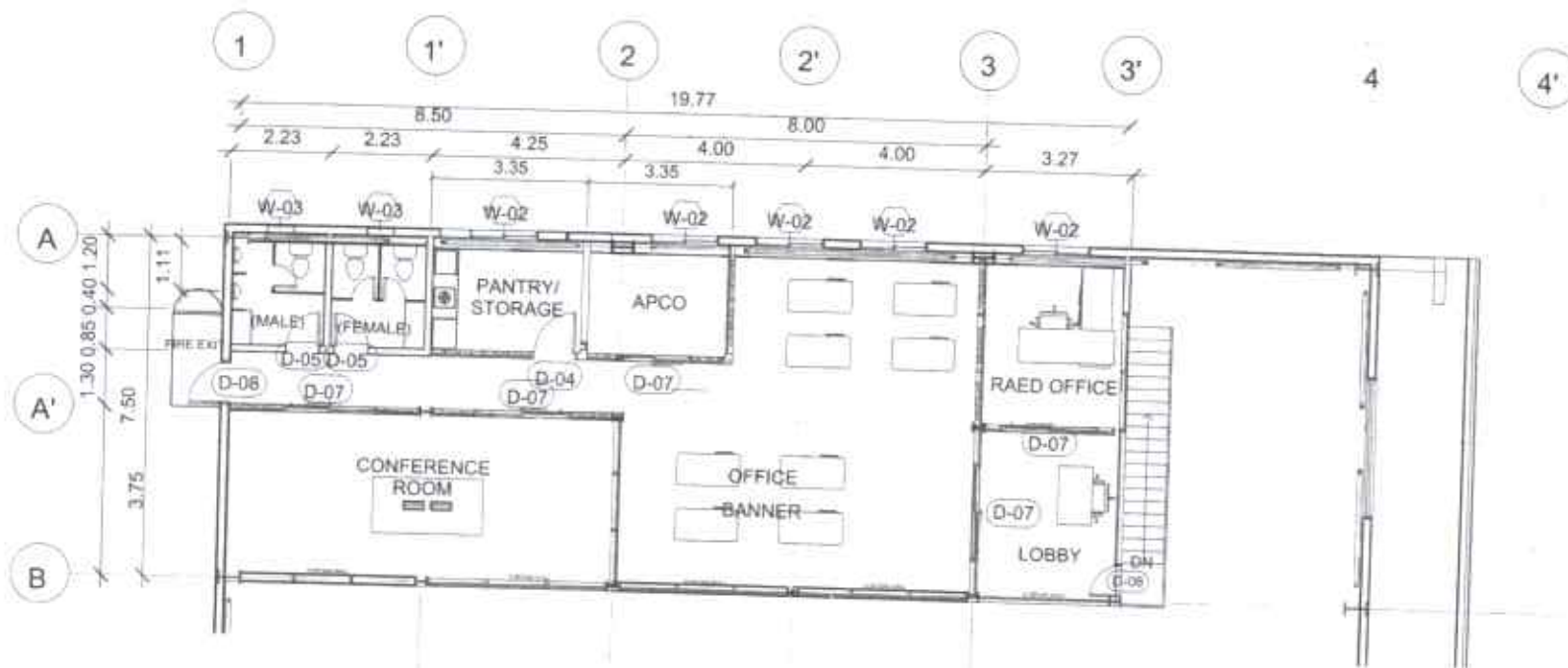
1 GROUND FLOOR PLAN
NTS

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE - AGUIA RD., DUTRA, SAN FERNANDO CITY, LA UNION REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE	PREPARED BY EDEN RUTH B. INES, ABE	CHECKED & REVIEWED MARK HARRY G. PASTOR, ABE	RECOMMENDING APPROVER DEBORA T. TAC, ABE	APPROVED DEBORA T. TAC, ABE	SHEET NO. 02
	DATE: MAY 2024	TECHNICAL STAFF	CHIEF ENGINEER	CHIEF ENGINEER	CHIEF ENGINEER	CHIEF ENGINEER



1 CANOPY PLAN
NTS

PREPARED FROM THE OFFICE OF: REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE AGUILA RD., BAYBAY, SAN PETER ALBINO CITY, LA LAGUNA REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE: CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE AWAC, SAN ANTONIO, ILOCOS SUR	PREPARED BY: EDEN RUTH G. INES, ABE TECHNICAL STAFF	CHECKED & REVIEWED: MARK HARRY G. PASTOR, ABE CHIEF ABE	RECOMMENDING APPROVAL: DESIGNER: TAC, ABE FOR APPROVAL	APPROVED: MARK PASCUER, ABE REGIONAL AGRICULTURAL ENGINEERING DIVISION	SHEET NO. 03 DRAWING NO. A-03
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1 MEZZANINE FLOOR PLAN

04 A-04 NTS

PREPARED FROM THE OFFICE OF



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
REGIONAL FIELD OFFICE
AGUA A RD., DENILA, SAN FERNANDO CITY, LA UNION
REGIONAL AGRICULTURAL ENGINEERING DIVISION

PLANS-400 Rev. 01.04 Date: 01/08/2004

PROJECT TITLE

CONSTRUCTION OF ILOCOS SUR
RESEARCH CENTER MULTI-CROP
WAREHOUSE CUM OFFICE

SHEET: SAN SUR, ILOCOS SUR

PREPARED BY

EDEN RUTH S. INES, ABE
TECHNICAL STAFF

CHECKED & REVIEWED

MARK HARRY G. PASTOR, ABE
CHIEF ABE

RECOMMENDING APPROVAL

DENISBY TALTAAC, ABE
ITS FOR CONSTRUCTION

APPROVED

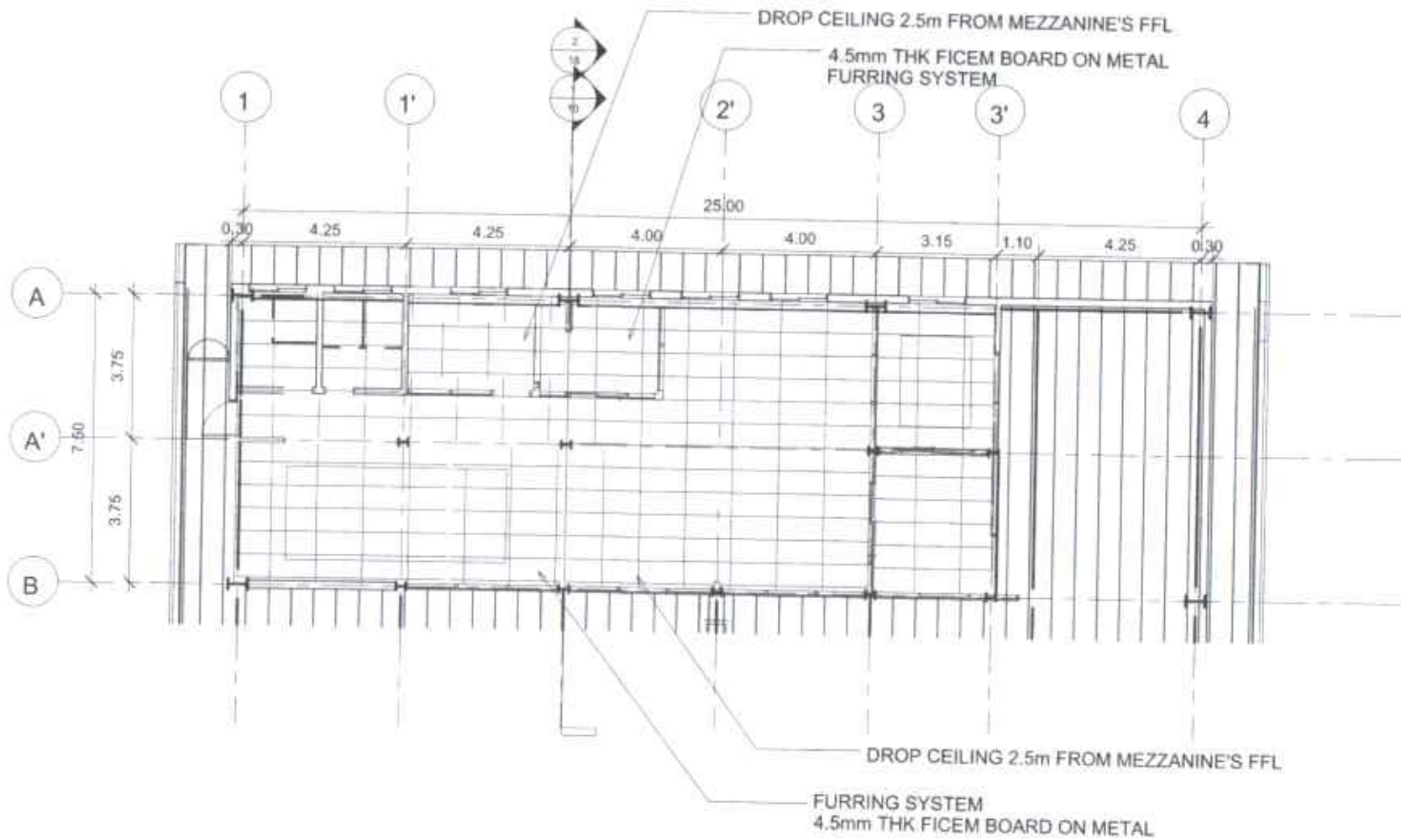
WILFRED PASCUAL, ABE
REGIONAL EXECUTIVE DIRECTOR

SHEET NO.

04

DRAWING NO.

A-04



1 MEZZANINE REFLECTED CEILING PLAN
05-A-05 NTS

PREPARED FROM THE OFFICE OF:



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
REGIONAL FIELD OFFICE
AGUILAR ST., SHELVA, SAN FERNANDO CITY, LA UNION
REGIONAL AGRICULTURAL ENGINEERING DIVISION

PS-425-005 Rev. 02 08/2004 01/08/2008

PROJECT TITLE

CONSTRUCTION OF ILOCOS SUR
RESEARCH CENTER MULTI-CROP
WAREHOUSE CUM OFFICE

0500 SAN JUAN, ILOCOS SUR

PREPARED BY

EDEN RUTH S. INES, ABE
TECHNICAL STAFF

CHECKED & REVIEWED

MARK HARRY G. BASTOR, ABE
CHIEF ENGINEER

RECOMMENDED APPROVAL

DENNIS I. TAYAC, ABE
SUPERVISOR OPERATIONS

APPROVED

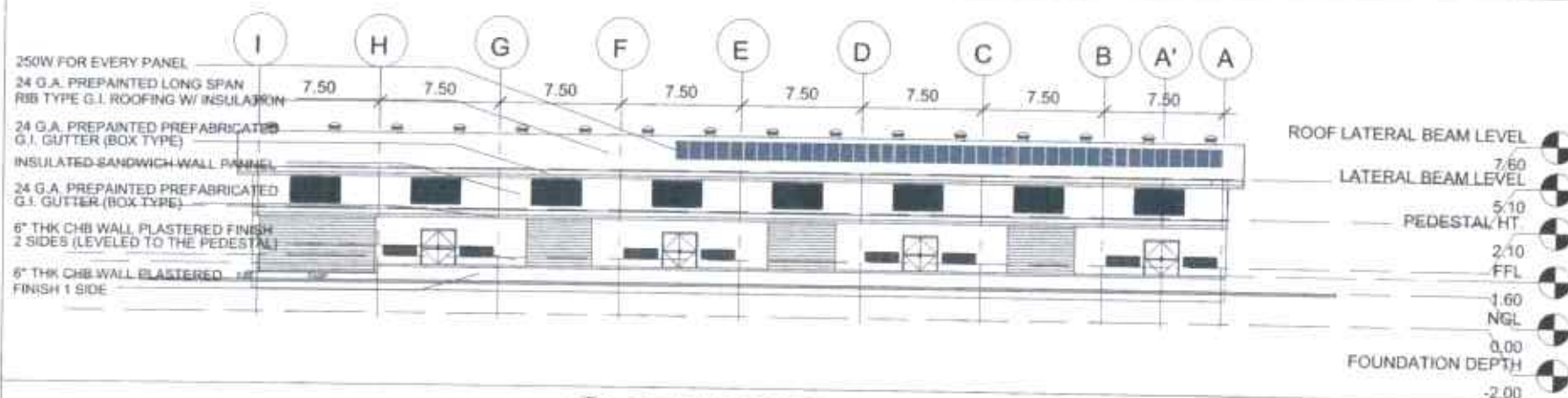
JOSE B. PASCUAL, ABE
REGIONAL EXECUTIVE DIRECTOR

SHEET NO.

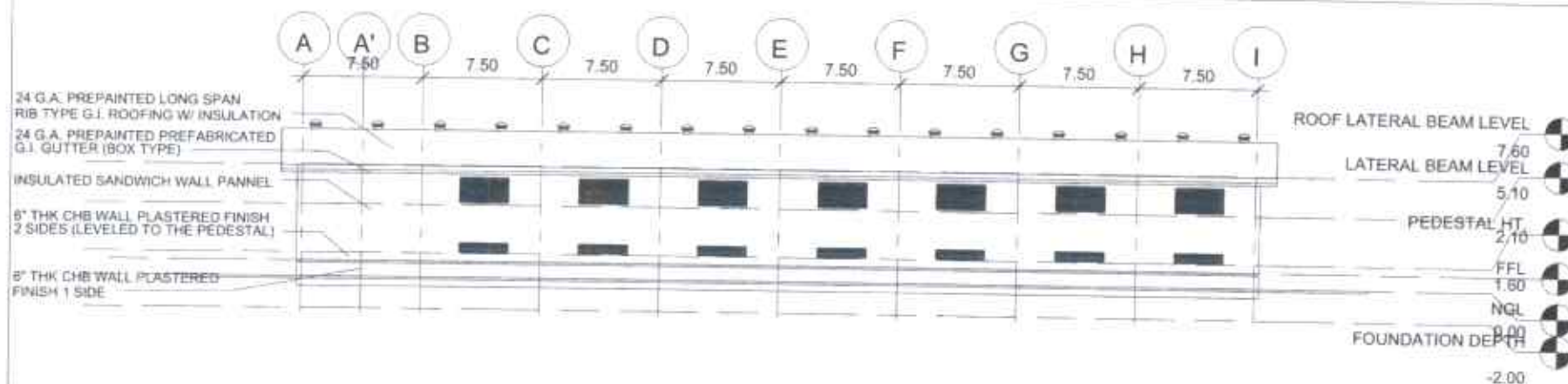
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DRAWING NO.

A-05

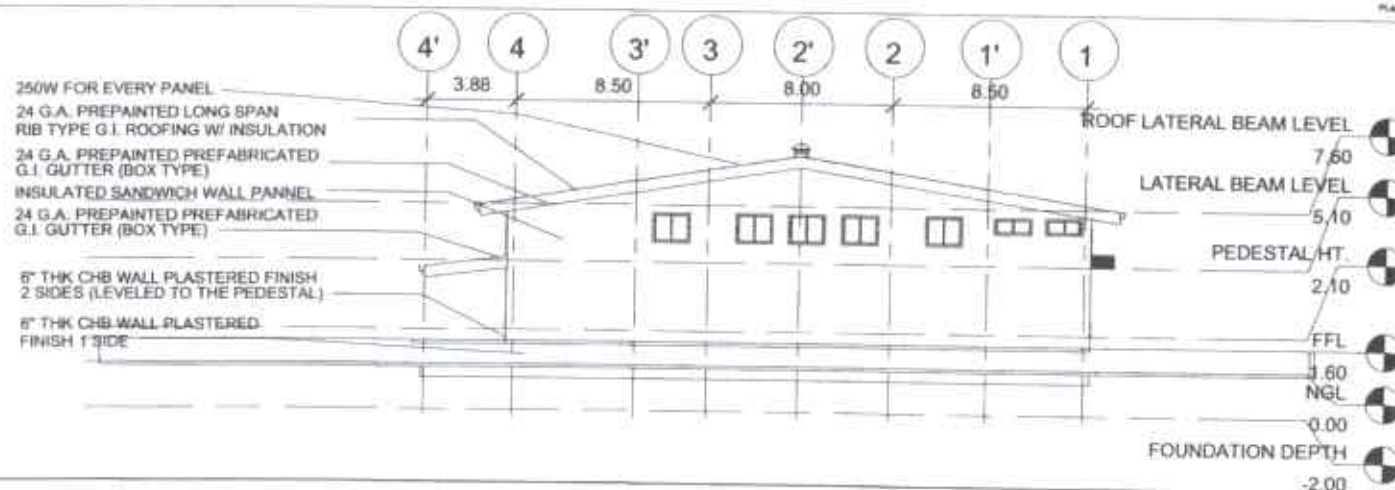


1 FRONT ELEVATION
NTS

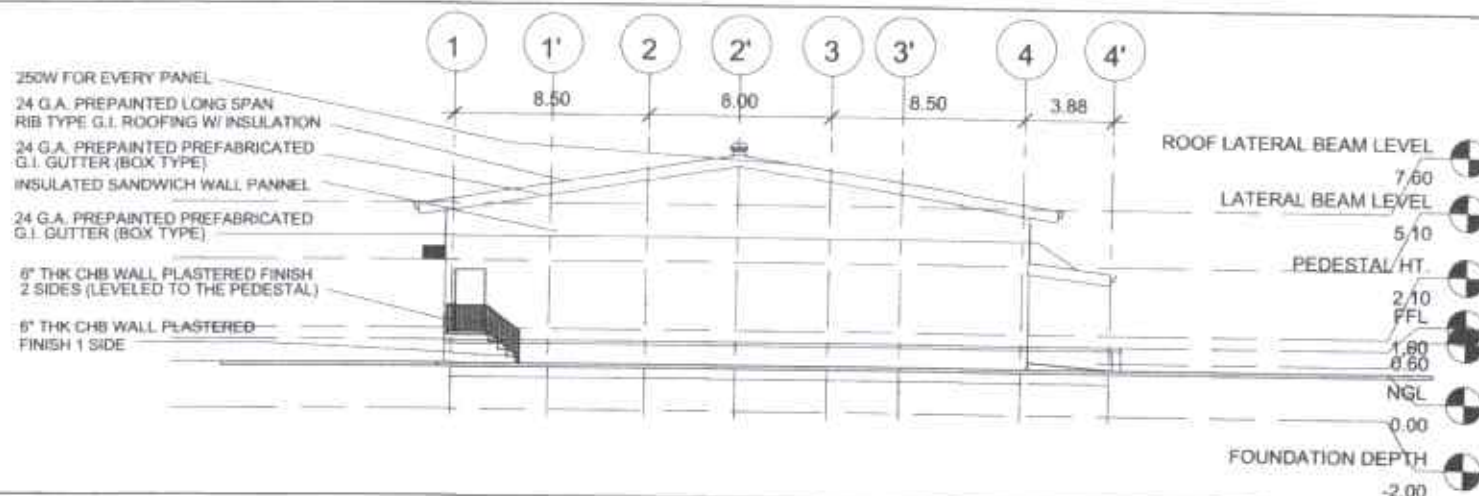


2 REAR ELEVATION
NTS

 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE	PREPARED BY EDEN RUTH B. INES, ABE TECHNICAL STAFF	CHECKED & REVIEWED MARK HARRY G. PASTOR, ABE CHIEF ENGINEER	RECOMMENDING APPROVAL GEN. M. P. AGAC, ABE CHIEF FOR OPERATIONS	APPROVED GEN. M. P. AGAC, ABE CHIEF FOR OPERATIONS	SHEET NO. 06 DRAWING NO. A-06
	PREPARED FROM THE OFFICE OF REGIONAL AGRICULTURAL ENGINEERING DIVISION	REGIONAL FIELD OFFICE REGIONAL AGRICULTURAL ENGINEERING DIVISION	REGIONAL AGRICULTURAL ENGINEERING DIVISION	REGIONAL AGRICULTURAL ENGINEERING DIVISION	REGIONAL AGRICULTURAL ENGINEERING DIVISION	REGIONAL AGRICULTURAL ENGINEERING DIVISION



1 LEFT SIDE ELEVATION
OS A-08 NTS



2 RIGHT SIDE ELEVATION
OS A-09 NTS

PREPARED FROM THE OFFICE OF: REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE I REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE: CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE	PREPARED BY: EDEN RUTH S. INES, ABE	CHECKED & REVIEWED: MARK HARRY G. PASTOR, ABE	RECOMMENDING APPROVAL: DENNIS SPANAC, ABE	APPROVED: MARK PASCUAL, RUM	SHEET NO. 07 DRAWING NO. A-07
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DOOR SCHEDULE				
MARK	NO. OF SETS	DOOR TYPE	DETAIL	
			SILL HEIGHT	HEAD HEIGHT
D-01	1	6.50mx5.50m Motorized Roll-Up Door		5.50m
D-02	3	4.20mx3.00m Motorized Roll-Up Door		3.00m
D-03	6	2.10mx2.10m Double Steel Door with Locksets		2.10m
D-04	2	2.0mx0.90m Flush Door		2.00m
D-05	2	2.10mx0.80m Single Flush PVC Door with Lockset		2.10m
D-06	1	2.10mx0.80m Glass Door		2.10m
D-07	8	2.10mx0.80m Glass Sliding Door with Lockset		2.10m
D-08	2	2.10mx0.90m Panic Door		2.10m

1 SCHEDULE OF DOOR

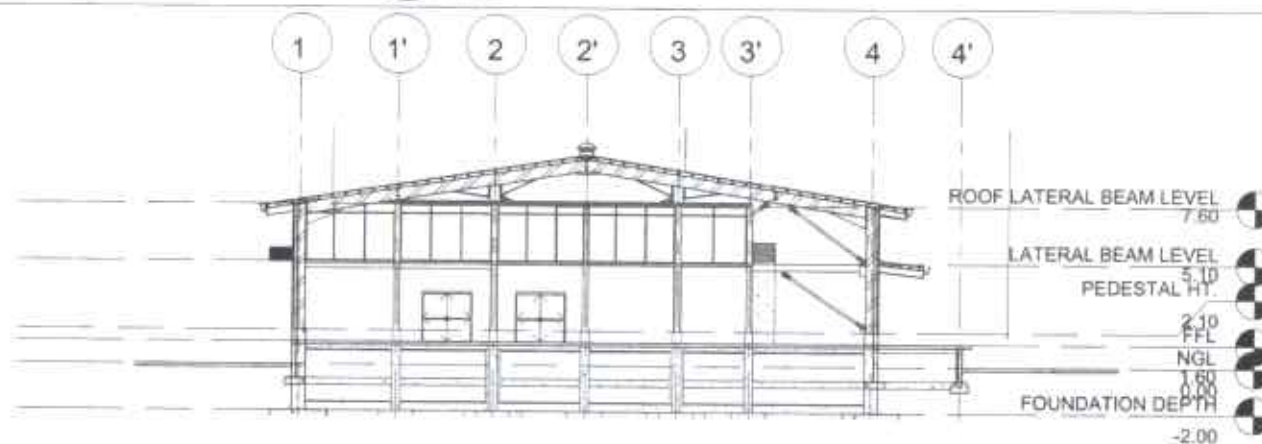
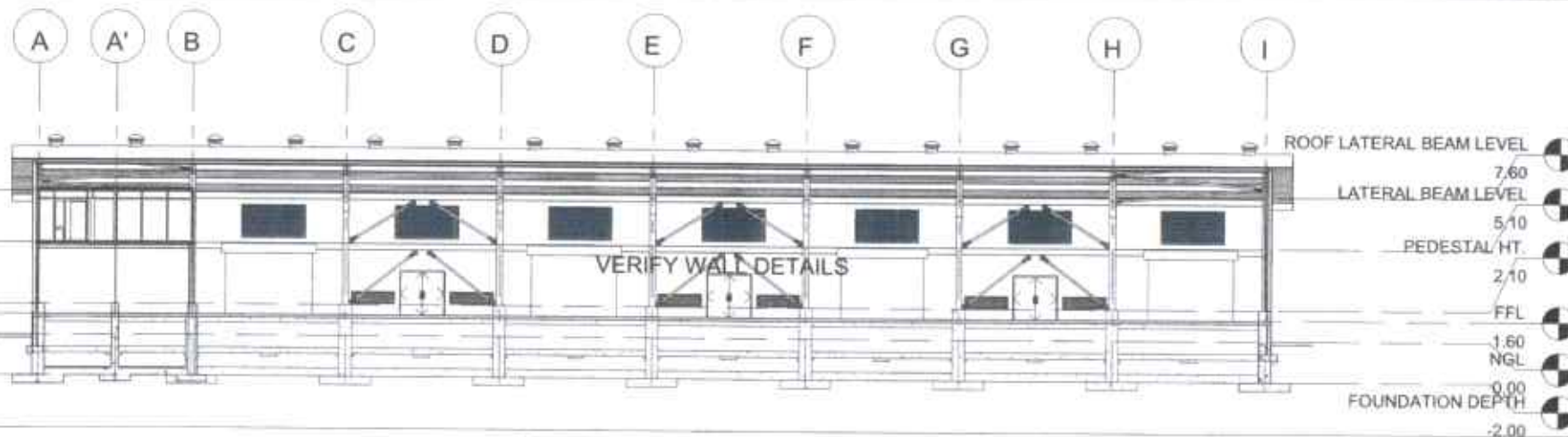
NTS

WINDOW SCHEDULE							
MARK	NO. OF SETS	WINDOW TYPE	FINISHED		DETAIL		REMARKS
			FRAME FINISH	PANEL FINISH	SILL HEIGHT	HEAD HEIGHT	
W-01	15	3.00mx1.50m Louver Type Window	Powder Coated Aluminum	Powder Coated Aluminum	0.20m	1.70m	Louver Type Window with Screen
W-02	5	1.50mx1.20m Sliding Window with Trim	Powder Coated Aluminum	Tinted Tempered Glass	0.90m	2.30m	Sliding Window
W-03	2	1.50mx0.80m Sliding Window with Trim	Powder Coated Aluminum	Tinted Tempered Glass	1.50m	2.10m	Sliding Window
W-04	7	3.00mx0.50m Louver Type Window	Powder Coated Aluminum	Powder Coated Aluminum	0.50m	1.10m	Louver Type Window with Screen
W-05	8	1.50mx0.50m Louver Type Window	Powder Coated Aluminum	Powder Coated Aluminum	0.50m	1.10m	Louver Type Window with Screen

2 SCHEDULE OF WINDOWS

NTS

PREPARED FROM THE OFFICE OF:  REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE I AGRICULTURAL ENGINEERING DIVISION REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE: CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE WARD: SAN JUAN, ILOCOS SUR	PREPARED BY:  EDEN RUTH S. INES, ABE TECHNICAL STAFF	CHECKED & REVIEWED:  MARK HARRY G. PASTOR, ABE CHIEF ENGINEER	RECOMMENDING APPROVAL:  DENNIS L. TACTAC, ABE SUPERVISOR	APPROVED:  DENNIS L. TACTAC, ABE REGIONAL EXECUTIVE SECTION	SHEET NO. 08 DRAWING NO. A-08
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PREPARED FROM THE OFFICE OF


REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
AGRICULTURAL FIELD OFFICE
REGIONAL AGRICULTURAL ENGINEERING DIVISION

PL-402-002 Rev. 02 28 Dec. 81 703553

PROJECT TITLE

CONSTRUCTION OF ILOCOS SUR
RESEARCH CENTER MULTI-CROP
WAREHOUSE CUM OFFICE

00000 SAN JUAN, ILOCOS SUR

PREPARED BY

EDEN RUTH S. INES, ABE

TECHNICAL STAFF

CHECKED & REVIEWED

MARK HARRY G. PASTOR, ABE

CHIEF

RECOMMENDING APPROVAL

DENNIS L. TACAB, ABE

IN CHARGE

APPROVED

JOHN B. PASCUAL, UJM

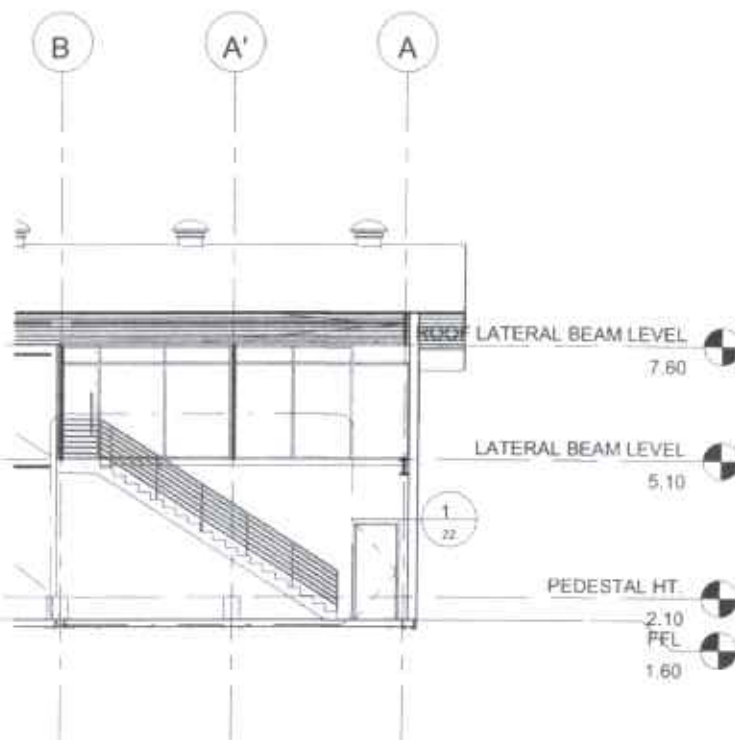
REGIONAL EXECUTIVE DIRECTOR

SHEET NO.

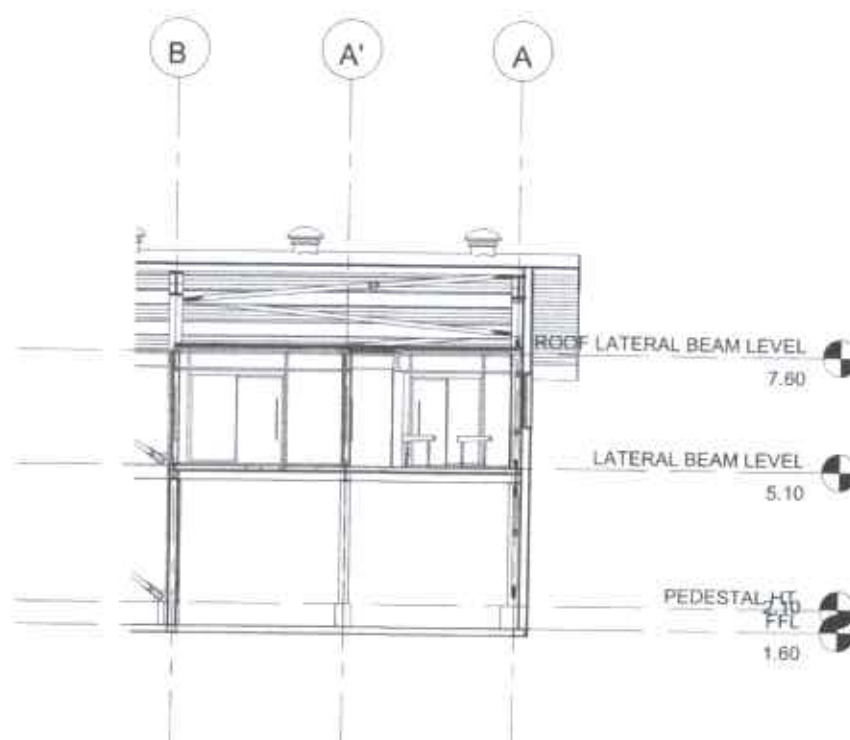
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DRAWING NO.

A-09



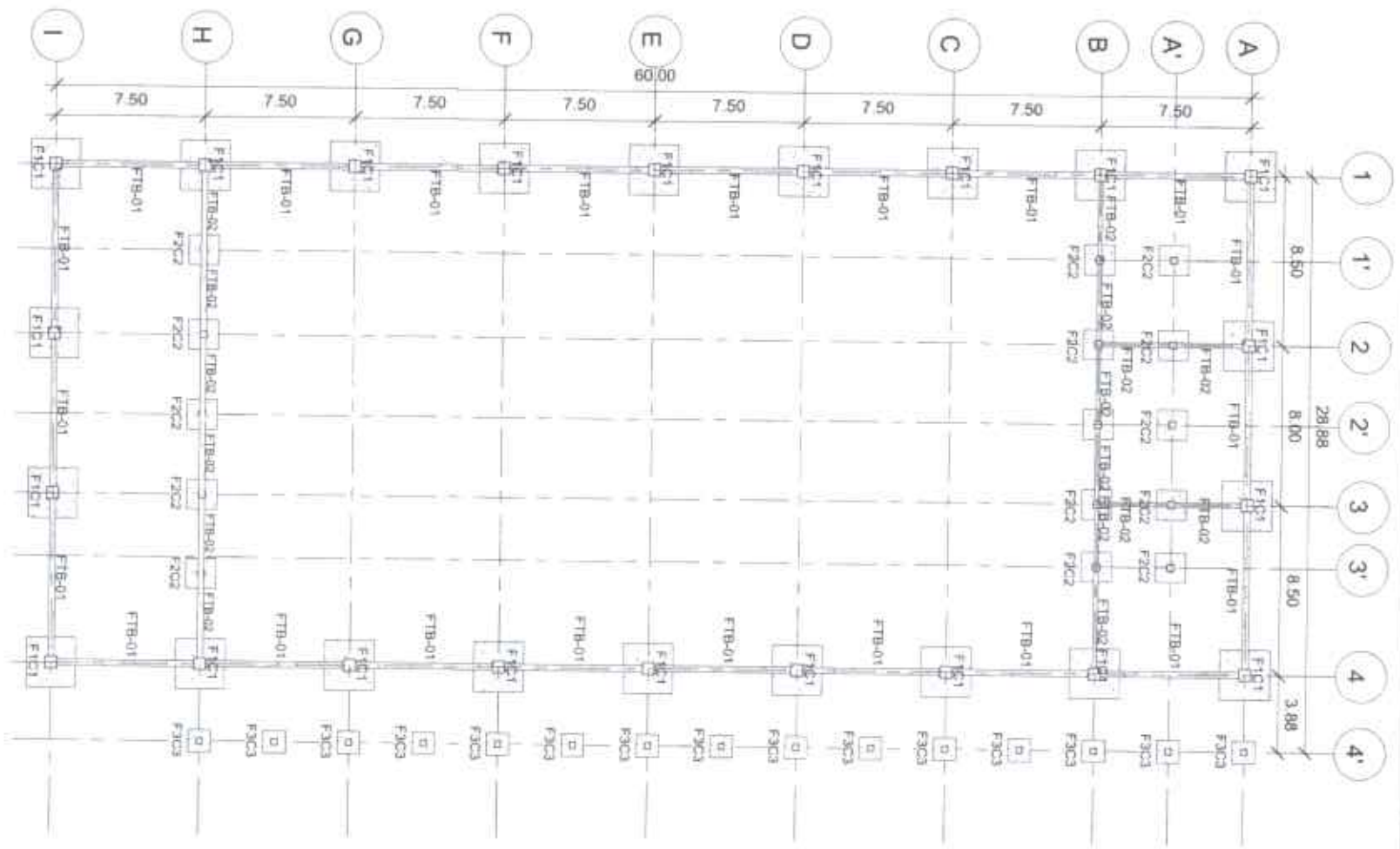
1 SECTION- "AA"
NTS

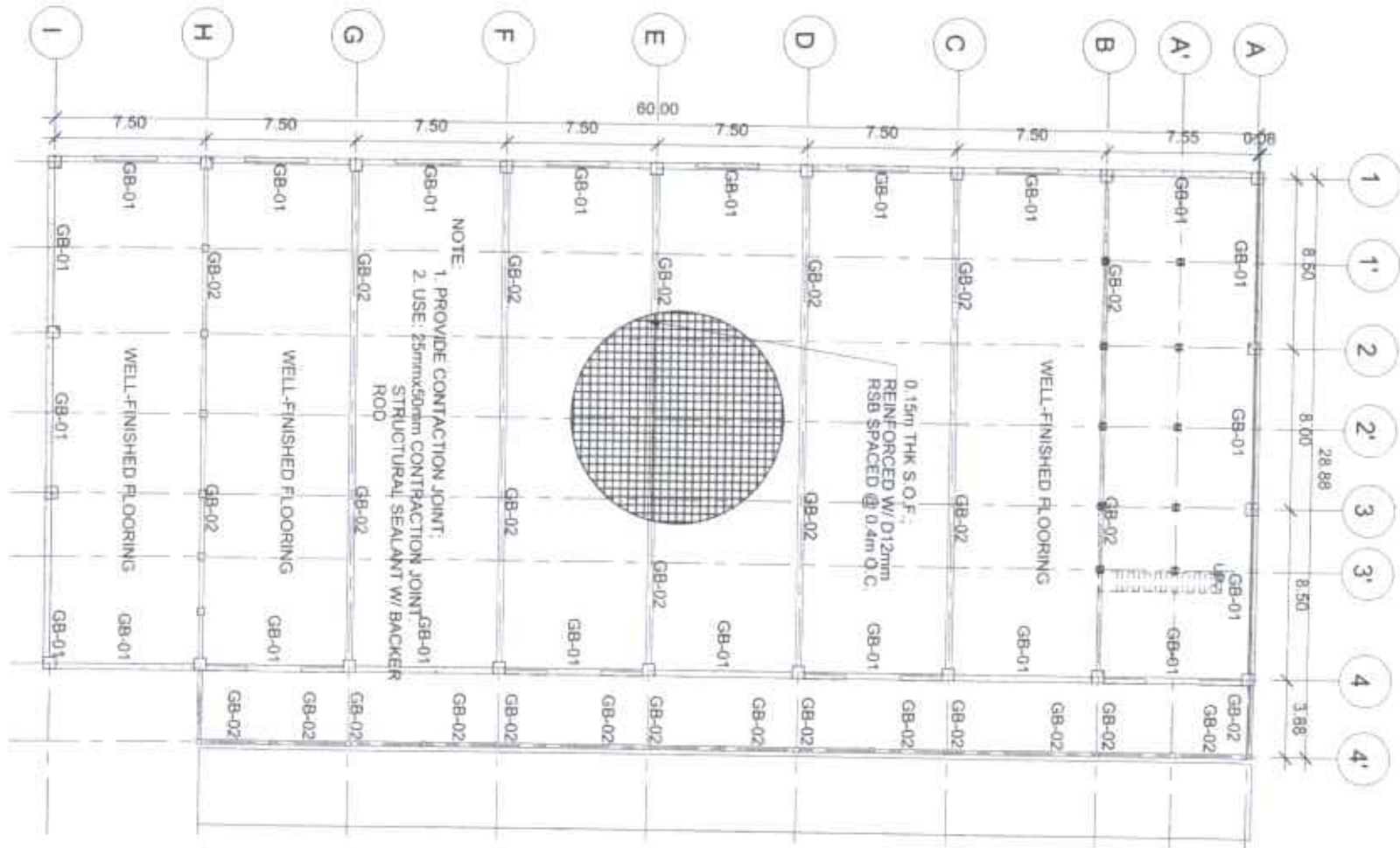


2 OFFICE AREA TRANSVERSE SECTION
NTS

PREPARED FROM THE OFFICE OF REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE	PREPARED BY EDEN RUTH S. INES, ABE TECHNICAL STAFF	CHECKED & REVIEWED MARK HARRY C. PASTOR, ABE ENGINEER	RECOMMENDING APPROVAL DENNIS P. TACTAN, ABE REGIONAL ENGINEER	APPROVED JOSE B. PASCOM, DVM REGIONAL ENGINEER DIVISION	SHEET NO. 10 DRAWING NO. A-10
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1 GRADE BEAM LAYOUT



PREPARED FROM THE OFFICE OF
 OFFICE OF THE HONORABLE
DEPARTMENT OF AGRICULTURE
 REGIONAL FIELD OFFICE I
 AGULAS DEL SOL, SAN FERNANDO CITY, LA UNION
 REGIONAL AGRICULTURAL ENGINEERING DIVISION
 PG-423-422 Apr. 62, Rev. No. 9102020

PROJECT TITLE	CONSTRUCTION OF ILLINOIS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE
PROJECT NAME AND LOCATION	4900 S. ILL. AVE. ILLINOIS SUR

PREPARED BY



JEFFERSON A. SAMONTE, RICE
TECHNICAL SCHOOL

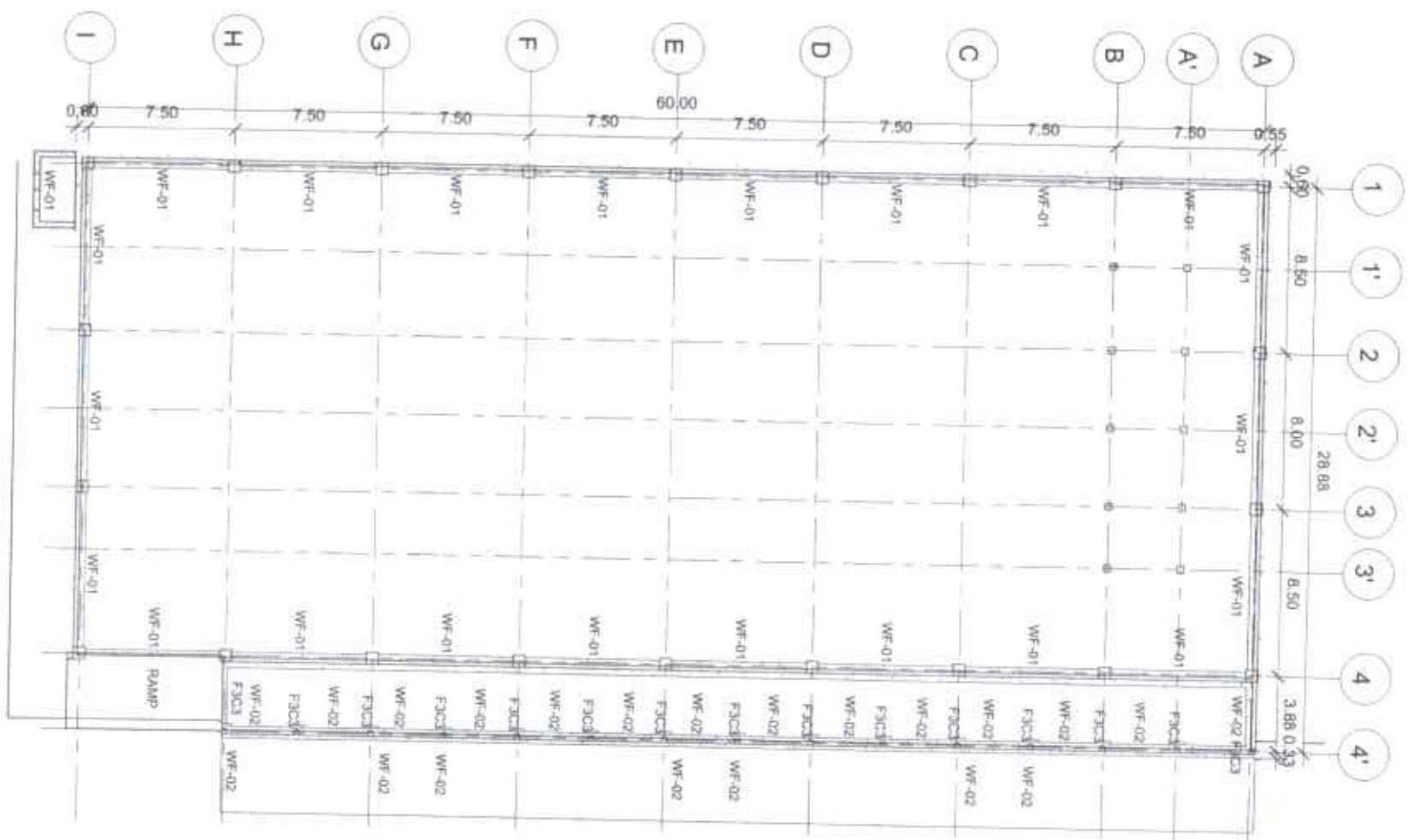
MARK HARRY G. PASTOR, ABE

RECOMMENDED APPROVAL

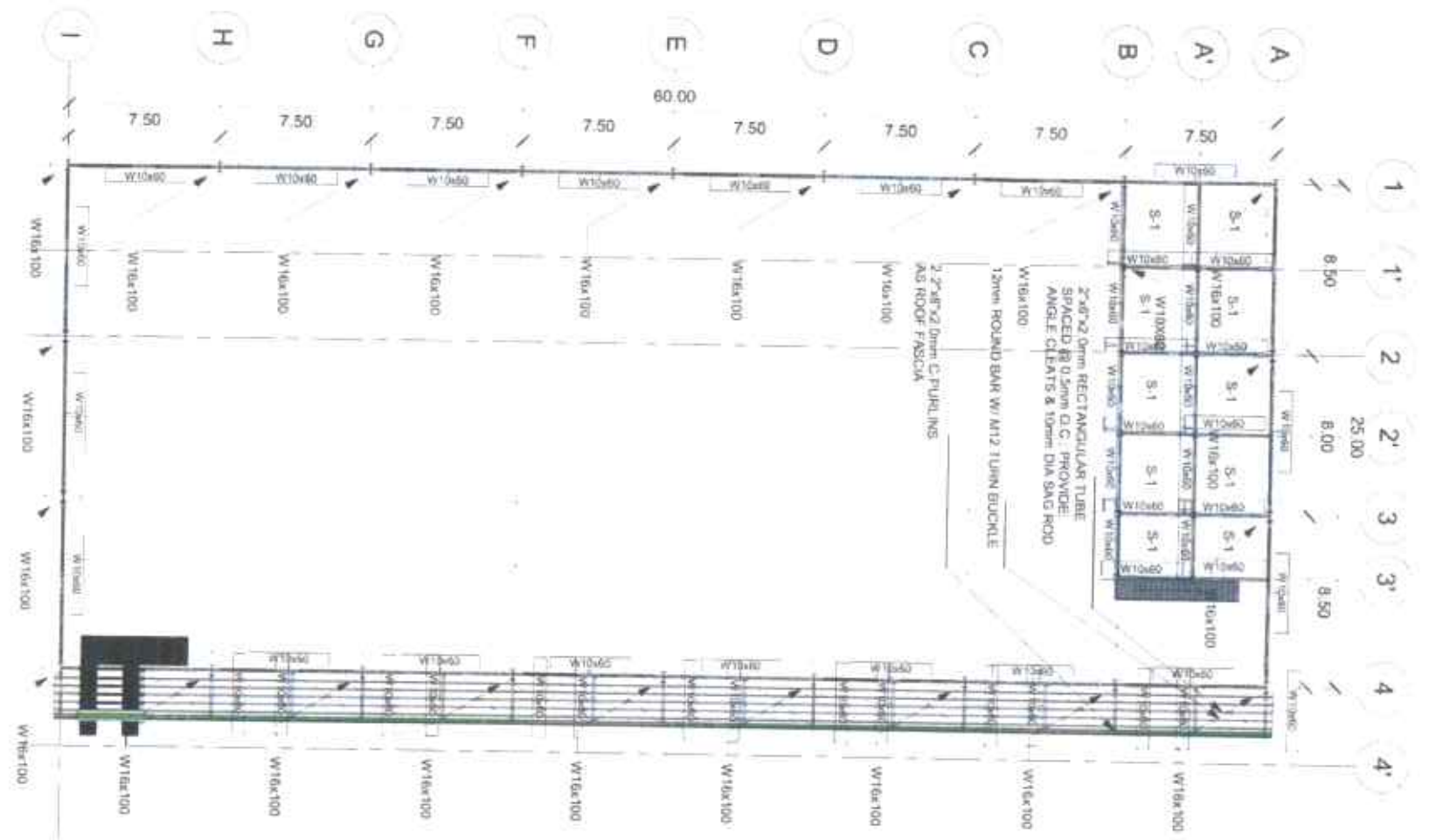
DETENTION FACTS, ABE

APPROVED: 
JOHN B. PASCUAL, DVM

S-02

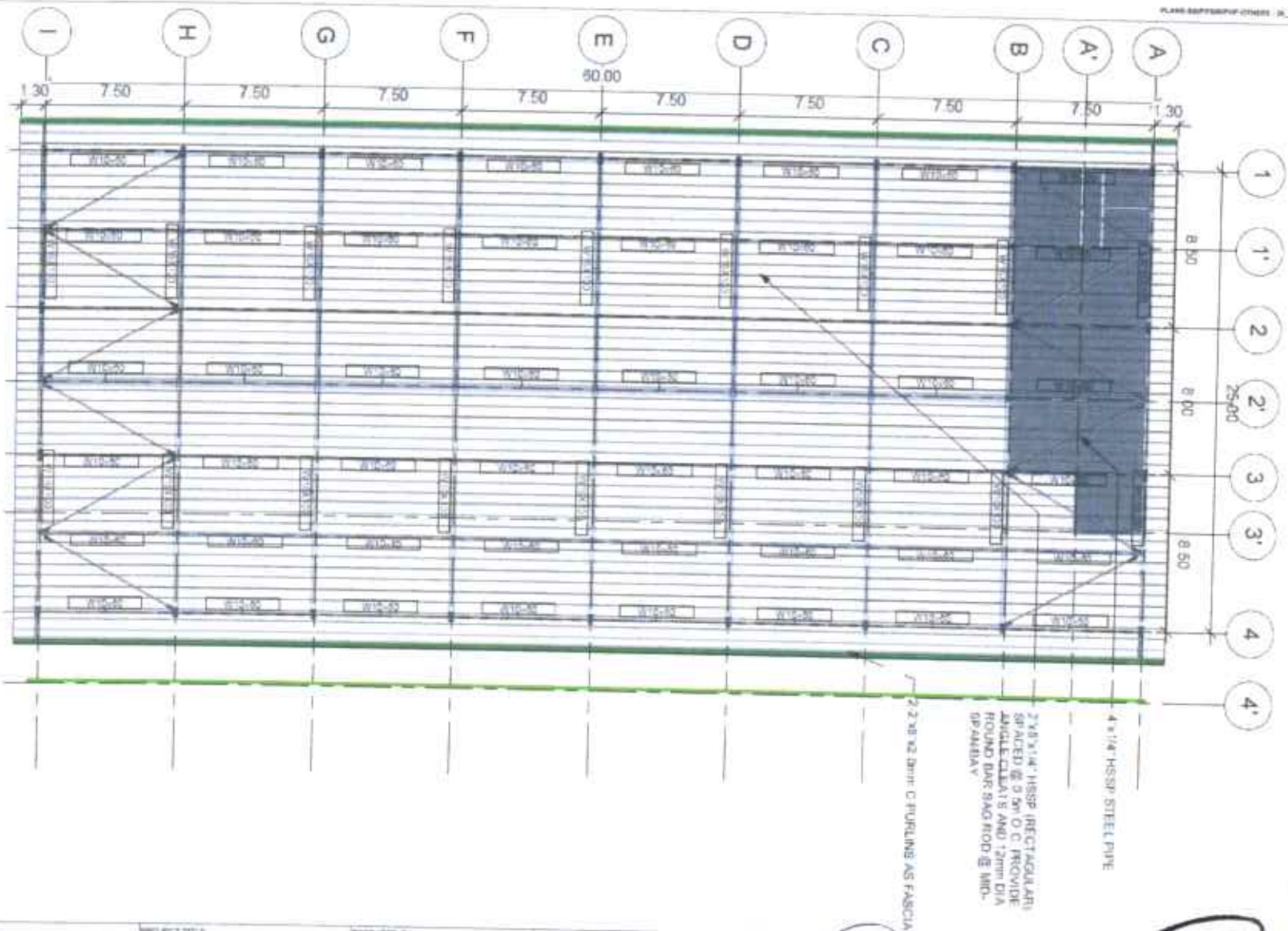


1
NTS
LATERAL BEAM LEVEL

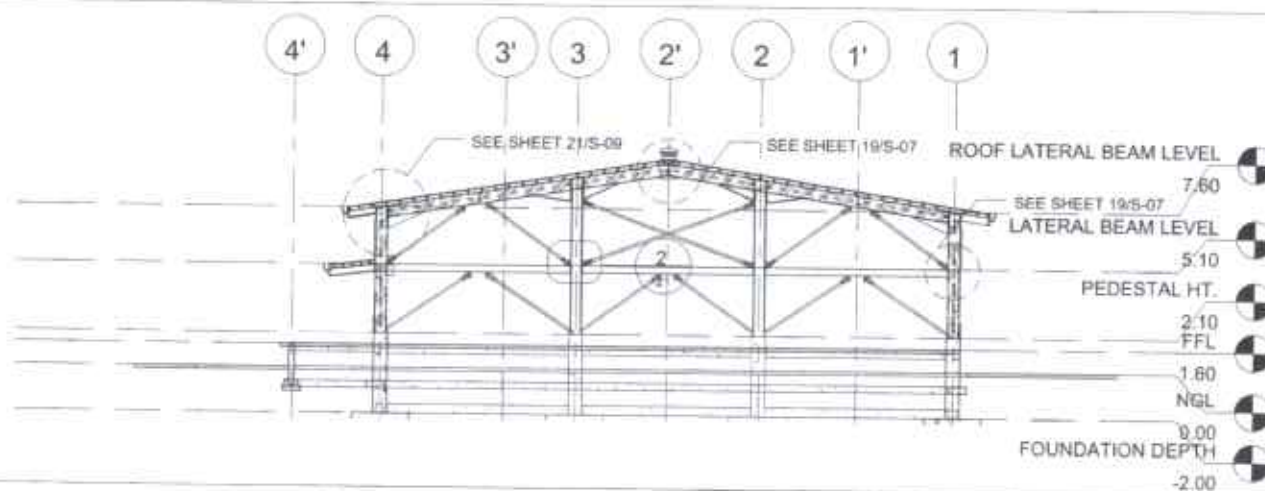


PREPARED FROM THE OFFICE OF REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE NORTHERN CEBU, SAN CARLOS CITY, LA JONIA REGIONAL AGRICULTURAL ENGINEERING DIVISION PD-602-202 Rev. 02, 07 Date: 11/08/2024	PROJECT TITLE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE SITE: SAN JUAN, ILOCOS SUR	PREPARED BY JEFFERSON A. SAMONTE, RCE TECHNICAL STAFF	CHECKED & REVIEWED MARK HARRY G. PASTOR, ABE CHIEF ARCHT	RECOMMENDING APPROVAL DENNIS T. PASTOR, ABE CHIEF ENGINEER	APPROVED JOSE P. PASTOR, CHIEF CHIEF ENGINEER	SHEET NO. 15 DRAWING NO. 8-04
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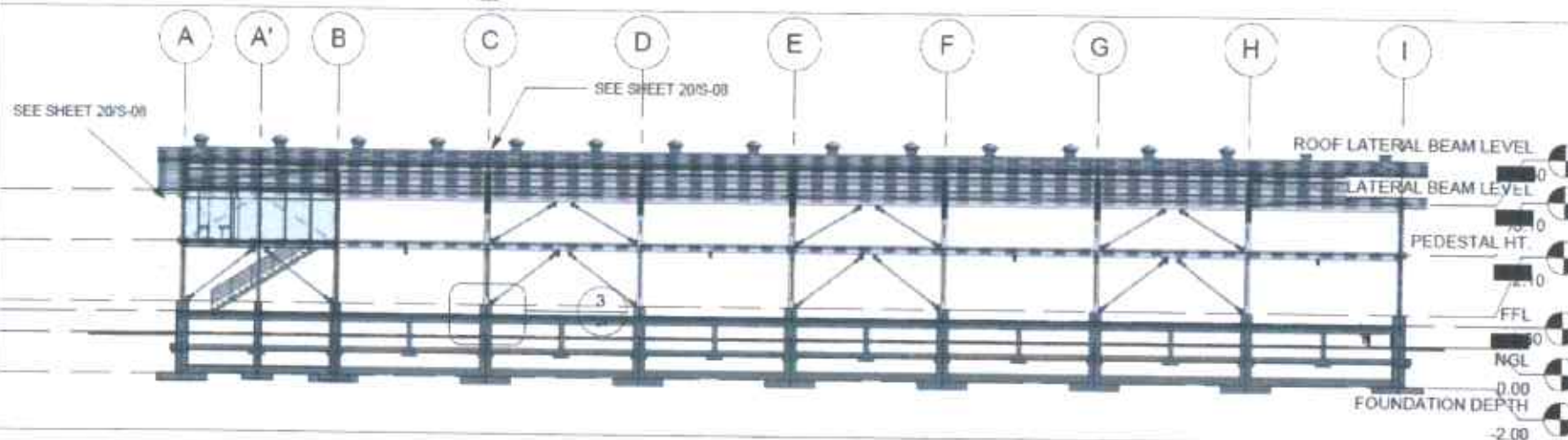
1 ROOF FRAMING PLAN NTS



PREPARED FROM THE OFFICE OF REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE	PREPARED BY JEFFERSON A. RAMONTE, RCE	CHECKED & REVIEWED MARK HARRY O. PASTOR, ABE	RECOMMENDING APPROVAL DENNIS B. PASTOR, ABE	APPROVED JOHN B. PASTOR, ENR	SHEET NO. 6
PD-402-002 Rev. 02 09 09	DATE: MAY 04, 2009	TECHNICAL STAFF	ENGINEER	FOR APPROVAL	REGIONAL EXECUTIVE DIRECTOR	S-05

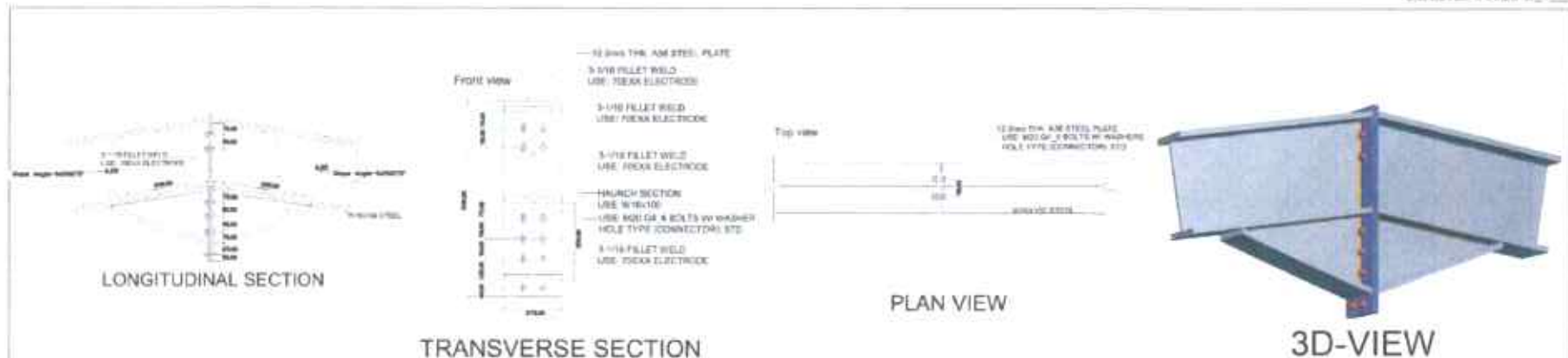


1 TRANSVERSE SECTION STEEL FRAME
1/8" = 0'-0" NTS



2 LONGITUDINAL SECTION STEEL FRAME
1/8" = 0'-0" NTS

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE I REGIONAL AGRICULTURAL ENGINEERING DIVISION 75-425-002 Rev. 02. 06 Date 10/06/2001	PROJECT TITLE CONSTRUCTION OF ILOOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE	PREPARED BY JEFFERSONIA SAMONTE, RICE	CHECKED & REVIEWED MARK HARRY AL PASTOR, ABE	RECOMMENDING APPROVAL DEWIS I. TACTAC, ABE	APPROVED JEFFERSONIA SAMONTE, RICE	SHEET NO. 17
	DATE 10/06/2001	TECHNICAL STAFF	CHIEF ENGINEER	REGIONAL ENGINEERING DIVISION	DRAWING NO. 17-06	



1 APEX CONNECTION DETAIL
1/8 S-07 NTS

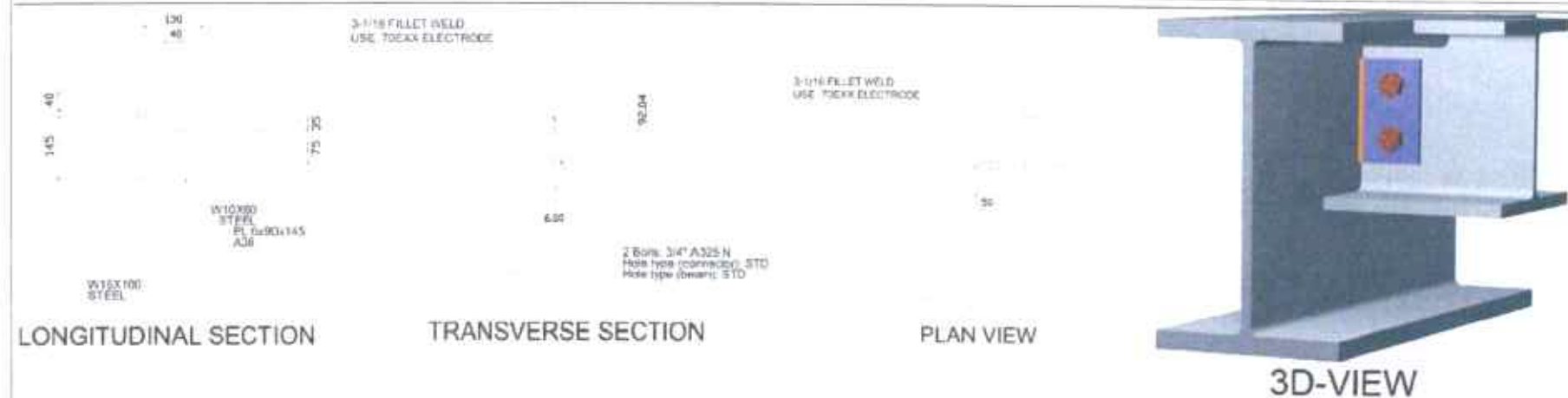


2 BEAM-COLUMN FLANGE CONNECTION DETAIL
1/8 S-07 NTS

PREPARED FROM THE OFFICE OF: REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE I RIZAL RD., 3015 VILLA SAN FERNANDO CITY, LA UNION REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE: CONSTRUCTION OF 8,000S BUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE	PREPARED BY: JEFFERSON J. AMONTE, RCE	CHECKED & REVIEWED: MARK HARRY G. PASTOR, ABE	RECOMMENDING APPROVAL: DENNIS I. TACTAC, ABE	APPROVED: MARK P. PASCUAL, CIVIL REGIONAL EXECUTIVE DIRECTOR	SHEET NO. 13 DRAWING NO. S-07
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1 BEAM-COLUMN WEB CONNECTION DETAIL
211 3-08 NTS

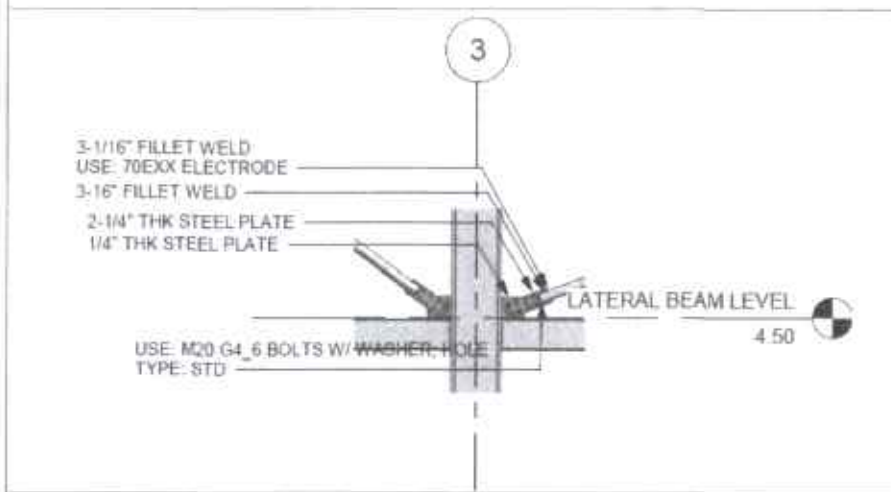


2 BEAM-GIRDER CONNECTION DETAIL
NTS

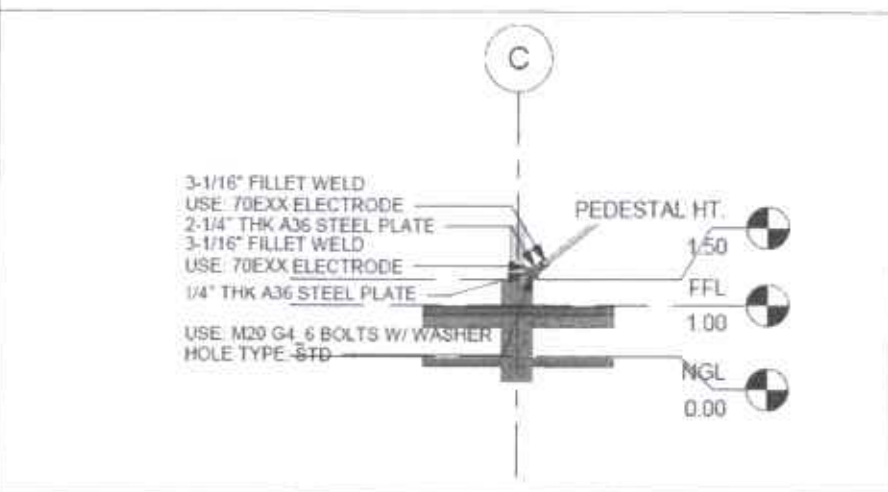
 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE NAGALA RD., BAYBAY, SAN FERNANDO CITY, LA UNION REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE SAN JUAN, ILOCOS SUR	PREPARED BY JEFFERSON A. SAMONTE, RCE TECHNICAL STAFF	CHECKED & REVIEWED MARK HARRY O. PASTOR, ABE CHIEF ENGINEER	RECOMMENDING APPROVAL GERIE I. TACTAC, ABE ASST. AG. ENGINEER	APPROVED JOSE B. PASCUAL LOYAN REGIONAL AGRICULTURAL ENGINEER	SHEET NO. 10 ENGINEERING NO. S-08
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1 KNEE HAUNCH END CONNECTION DETAIL
NTS

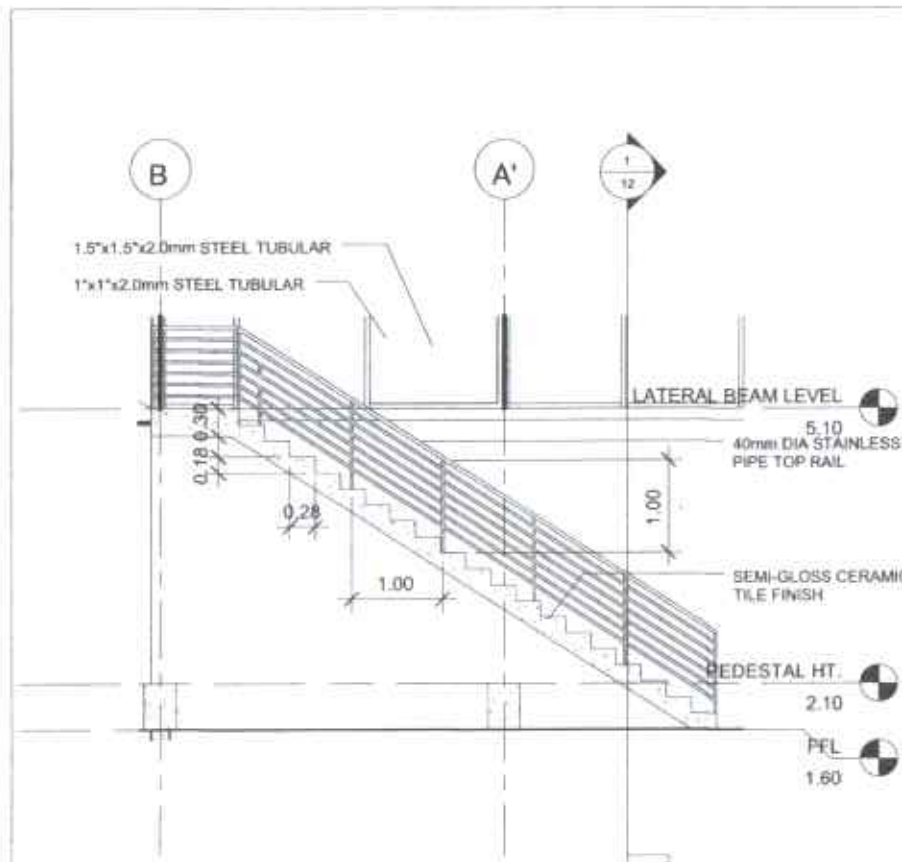


2 BRACE CONNECTION AT LATERAL BEAM
NTS

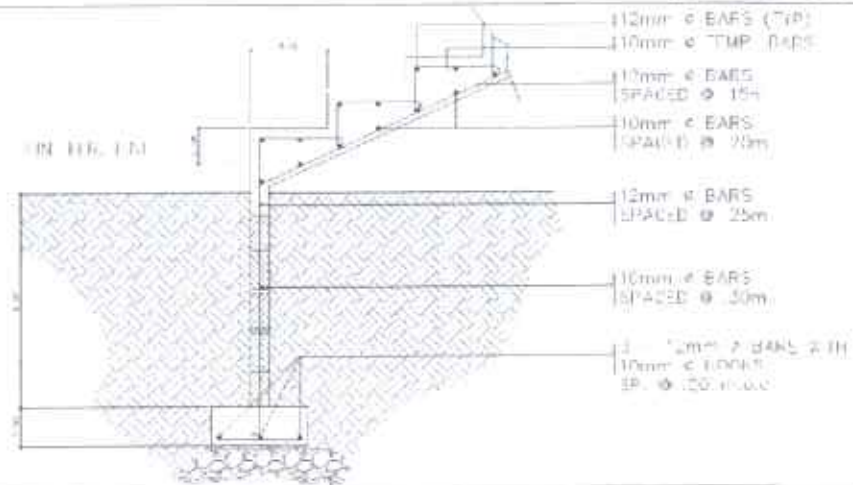


3 BRACE CONNECTION AT PEDESTAL
NTS

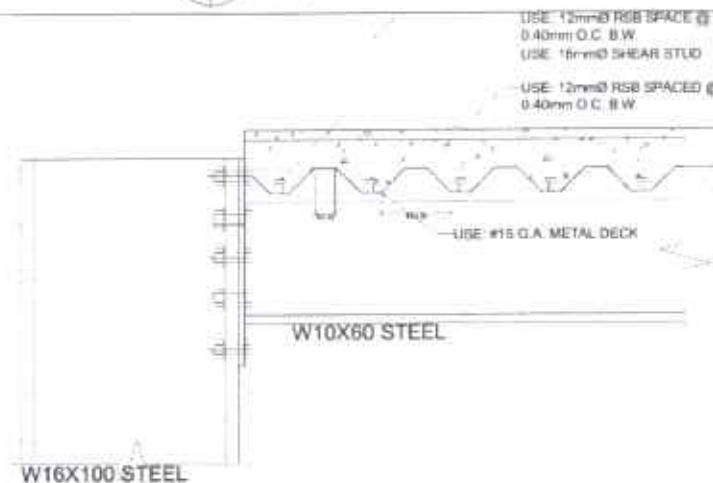
PREPARED FROM THE OFFICE OF REPORT OF THE PRESIDENT DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE AGUILA RD., BAYALA, SAN FERNANDO CITY, LA UNION REGIONAL AGRICULTURAL ENGINEERING DIVISION RD-402-002 Rev. 05.09.00	PROJECT TITLE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE BRIC, SAN JUAN, ILOCOS SUR	PREPARED BY JEFFERSON A. SAMONTE, RCE TECHNICAL STAFF	CHECKED & REVIEWED MARK HARRY G. PASTOR, ABE CHIEF ENGINEER	RECOMMENDING APPROVAL DENNIS P. PACTAC, ABE CHIEF OF DIVISION	APPROVED JOSE P. PACTAC, ABE REGIONAL EXECUTIVE DIRECTOR	SHEET NO. 2 DRAWING NO. S-09
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1 STAIR DETAIL
NTS

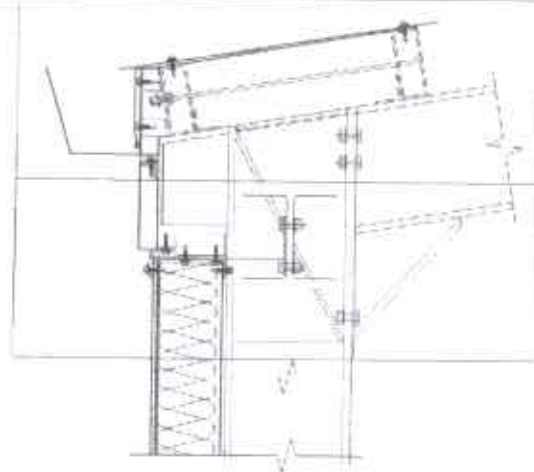


2 STAIRS DETAIL
NTS



3 METAL DECK DETAIL (S-1)
NTS

PREPARED FROM THE OFFICE OF: REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE AGUILA REL. DIVISION, SAN REMONIO CITY, LA UNION REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE: CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE	PREPARED BY: JEFFERSON A. SAMONTE, RCE	CHECKED & REVIEWED: MARK HARRY P. PASTOR, ABE	RECOMMENDING APPROVAL: DEPUTY TACTICAL ABE	APPROVED: REGIONAL EXECUTIVE DIRECTOR	SHEET NO. 1 CHANGED NO. S-10
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CALL-OUT

01

CALL-OUT

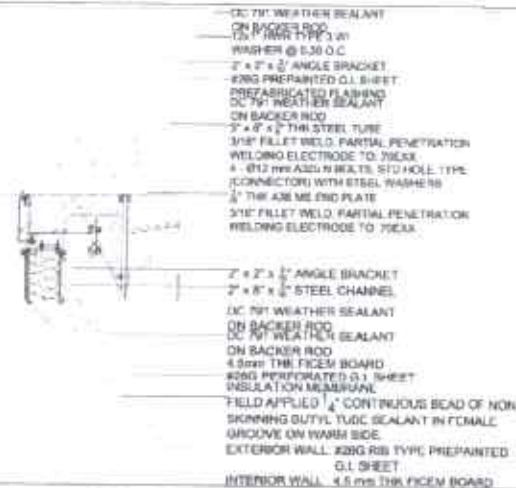
02

1

INSULATED SANDWICH PANEL DETAIL-01

NTS

23 5-11



DC 791 WEATHER SEALANT
ON BACKER ROD
12x1" HWY TYPE 3 W/
WASHER @ 0.30 O.C.
2" x 2" x 1/2" ANGLE BRACKET
#20G PREFABRICATED G.I. SHEET
PREFABRICATED FLASHING
DC 791 WEATHER SEALANT
ON BACKER ROD
3/16" x 1/2" THK STEEL TUBE
3/16" FILLET WELD, PARTIAL PENETRATION
WELDING ELECTRODE TO: 70EXX
4 - Ø12 mm A325 N BOLTS, STD HOLE TYPE
(CONNECTOR) WITH STEEL WASHERS
1/2" THK A36 MS END PLATE
3/16" FILLET WELD, PARTIAL PENETRATION
WELDING ELECTRODE TO: 70EXX

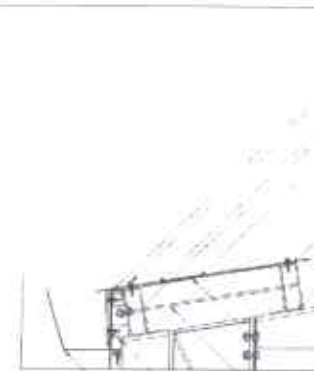
2" x 2" x 1/2" ANGLE BRACKET
2" x 8" x 1/2" STEEL CHANNEL
DC 791 WEATHER SEALANT
ON BACKER ROD
DC 791 WEATHER SEALANT
ON BACKER ROD
4.5mm THK PCMB BOARD
#26G PERFORATED G.I. SHEET
INSULATION MEMBRANE
FIELD APPLIED 1/4" CONTINUOUS BEAD OF NON-
SKINNING BUTYL TUBC SEALANT IN FEMALE
GROOVE ON WARM SIDE
EXTERIOR WALL: #20G RIB TYPE PREFABRICATED
G.I. SHEET
INTERIOR WALL: 4.5 mm THK PCMB BOARD

3

CALL OUT-02

NTS

23 5-11



2" x 10" x 1.8mm CEE PURLINS
12x1" HWY TYPE 3 W/
WASHER @ 0.30 O.C.
#24G G.I. SHEET FLASHING
DC 791 WEATHER SEALANT
ON BACKER ROD
#24G G.I. SHEET
3"x5"x1/4" THK STEEL TUBE SPACED @
0.30m O.C. WITH ANGLE CLEATS
3/16" FILLET WELD, PARTIAL PENETRATION
WELDING ELECTRODE TO: 70EXX

4.5mm THK INSULATION FOAM
W/ #24G PERFORATED G.I. SHEET
Ø12mm ROUND BAR (THREADED
ENDS) WITH A325 N NUTS W/ WASHER
1/2" THK STEEL BRACKET
#26G PREFABRICATED (BOX PROFILE)
G.I. GUTTER (PREPAINTED)

2

CALL OUT-01

NTS

23 5-11



3" x 6" x 1/2" THK STEEL VERTICAL
CHANNEL SPACED EVERY 2M O.C.
3/16" FILLET WELD, PARTIAL PENETRATION
WELDING ELECTRODE TO: 70EXX
1/2" THK A36 MS END PLATE
2" x 8" x 1/2" HORIZONTAL STEEL CHANNEL
BRACKET @ EVERY 1M HT
3" x 6" x 1/2" THK STEEL TUBE
4 - Ø12 mm A325 N BOLTS, STD HOLE TYPE
(CONNECTOR) WITH STEEL WASHERS
1/2" THK A36 MS END PLATE
3/16" FILLET WELD, PARTIAL PENETRATION
WELDING ELECTRODE TO: 70EXX

4.5mm THK PCMB BOARD
#26G PERFORATED G.I. SHEET
INSULATION MEMBRANE
FIELD APPLIED 1/4" CONTINUOUS BEAD OF NON-
SKINNING BUTYL TUBE SEALANT IN FEMALE
GROOVE ON WARM SIDE
#26G PERFORATED G.I. SHEET
EXTERIOR WALL: #20G RIB TYPE PREFABRICATED
G.I. SHEET
INTERIOR WALL: 4.5 mm THK PCMB BOARD

4

INSULATED SANDWICH PANEL DETAIL - 02

NTS

23 5-11

PREPARED FROM THE OFFICE OF:



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
REGIONAL FIELD OFFICE
AGUILA RD., BEVILA, SAN FERNANDO CITY, LA UNION
REGIONAL AGRICULTURAL ENGINEERING DIVISION

PS-402-00 Rev. 04.08 Date: 01/08/2008

PROJECT TITLE:

CONSTRUCTION OF ILOCOS SUR
RESEARCH CENTER MULTI-CROP
WAREHOUSE CUM OFFICE
SHEL: SHI JIAN, ILOCOS SUR

PREPARED BY:

JEFFERSON L. SAMONTE, RCE
TECHNICAL STAFF

CHECKED & REVIEWED:

MARK HARRY G. PASTOR, ABE
CHIEF ENGINEER

RECOMMENDING APPROVAL:

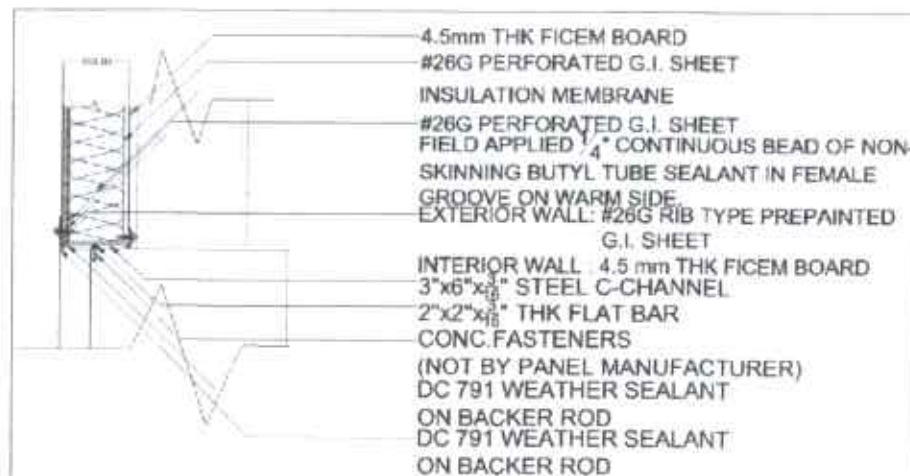
DENNIS L. RICE, RCE, ABE
CHIEF ENGINEER

APPROVED:

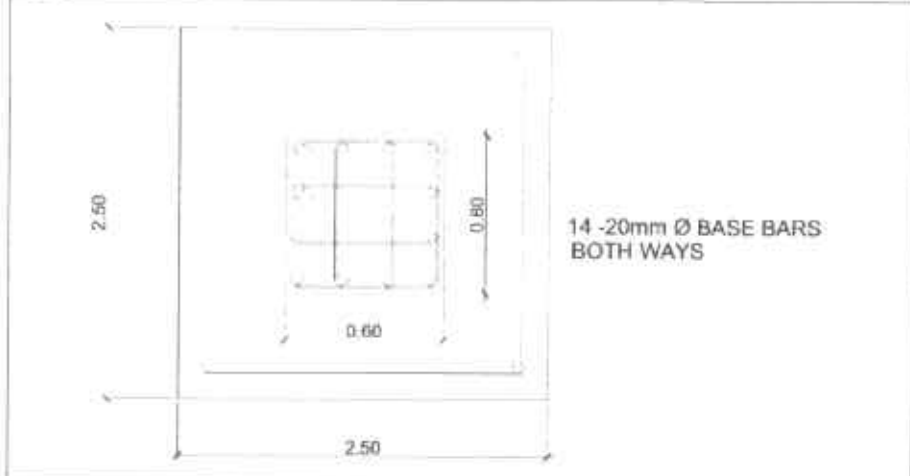
JOHN B. PASQUAL, RCE
CHIEF ENGINEER

SHEET NO.

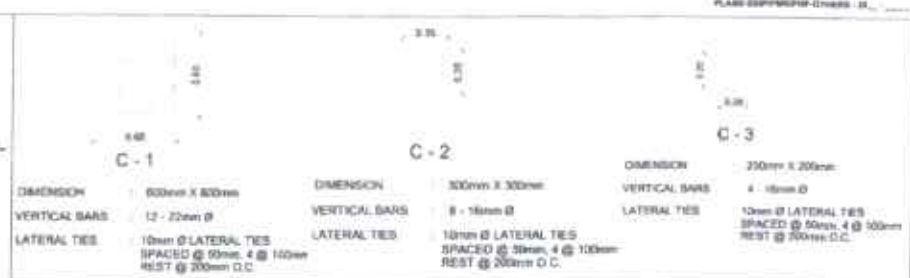
22
DRAWING NO.
S-11



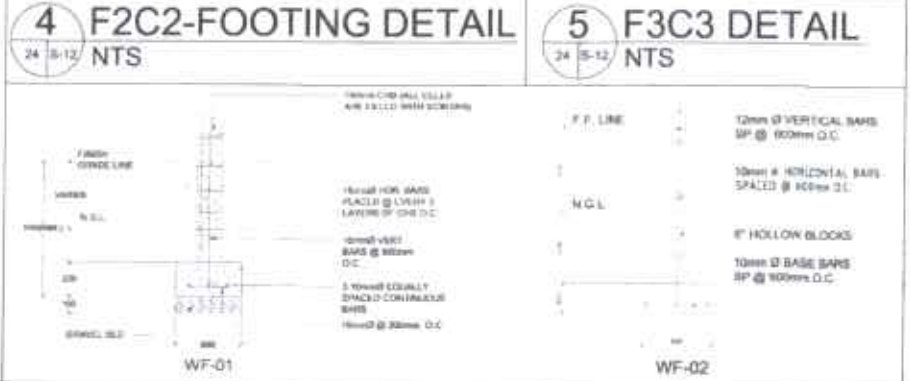
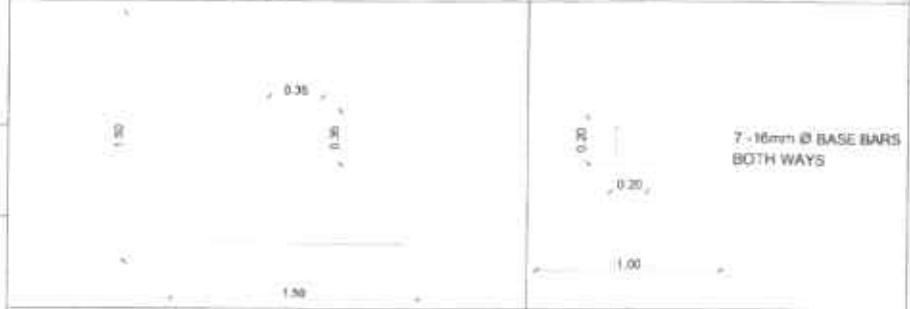
1 INSULATED SANDWICH PANEL DETAIL - 03
24 S-12 NTS



3 F1C1-FOOTING DETAIL
24 S-12 NTS

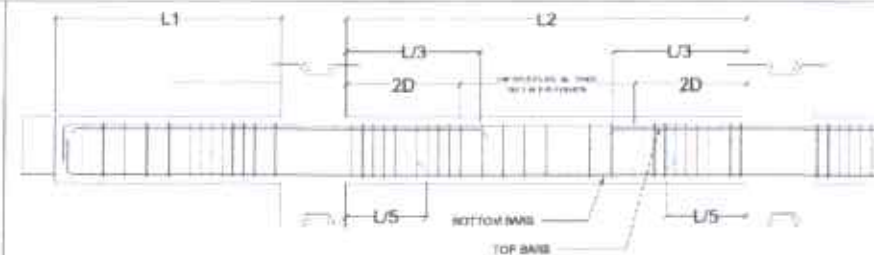


2 COLUMN DETAIL
24 S-12 1:10

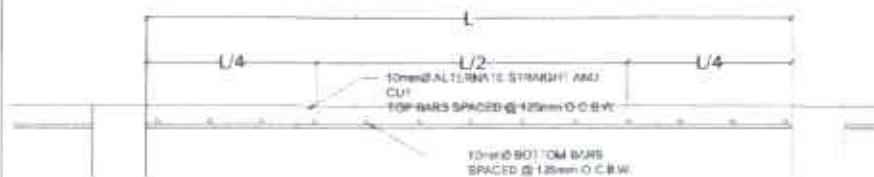


MARK	DIMENSION (mm) b x h	SECTION		SPACING OF 10mm Ø LATERAL TIES
		@ SUPPORT	@ MIDSPAN	
FTB	275mm x 400mm	 3 - 20mm ² 2 - 20mm ²	 2 - 20mm ² 3 - 20mm ²	1 @ 50mm, 4 @ 100mm, rest @ 120mm on center to mid-span
GB-01	275mm x 400mm	 1 - 20mm ² 2 - 20mm ²	 2 - 20mm ² 4 - 20mm ²	1 @ 50mm, 4 @ 100mm, rest @ 140mm on center to mid span
GB-02	250mm x 350mm	 3 - 16mm ² 2 - 16mm ²	 2 - 16mm ² 3 - 16mm ²	1 @ 50mm, 4 @ 100mm, rest @ 140mm on center to mid-span

1 BEAM SCHEDULE
25 S-13 NTS



2 TYPICAL BEAM ELEVATION
25 S-13 NTS

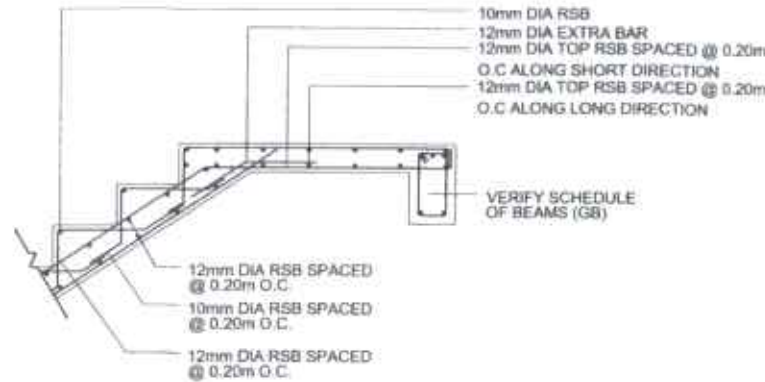


3 TYPICAL SLAB ELEVATION
25 S-13 NTS

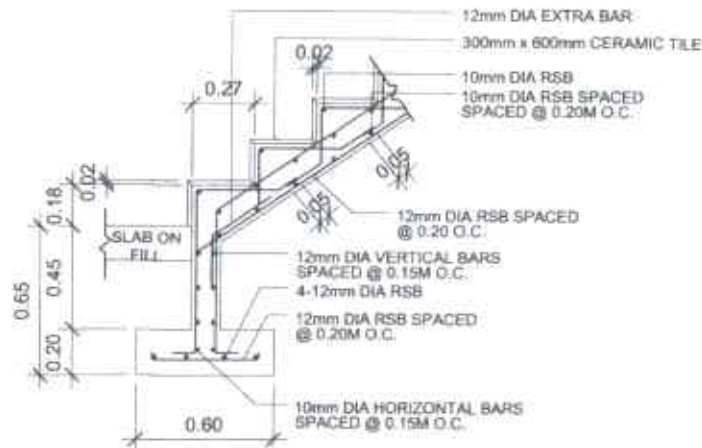
SCHEDULE OF SLABS													
LEVEL	MARK	THICKNESS	ALONG SHORT DIRECTION										REMARKS
			REBAR SPACING ALONG SHORT DIRECTION (mm)						REBAR SPACING ALONG LONG DIRECTION (mm)				
			REBAR SIZE	AT SUPPORTS		AT MID-SPAN		REBAR SIZE	AT SUPPORTS		AT MID-SPAN		
				TOP	BOT	TOP	BOT		TOP	BOT	TOP	BOT	
2F	S1	125	10	400	200	200	-	10	400	200	200	-	2W-SLAB (ON METAL DECK)
2F	STL	125	10	400	200	200	400	10	400	200	200	400	STAIR LANDING

5 SCHEDULE OF SLABS
25 S-13 NTS

PREPARED FROM THE OFFICE OF  REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE: CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE (SHEED: SHAF JARA, ILOCOS SUR)	PREPARED BY:  JEFFERSON A. SAMONTE, RCE TECHNICAL STAFF	CHECKED & REVIEWED:  MARK HARRY G. PASTOR, ABE CHIEF ENGINEER	RECOMMENDING APPROVAL:  DENNIS TACTAC, ABE HND FOR REGISTRATIONS	APPROVED:  YAMIL PASCUAL, CIVIL REGIONAL AGRICULTURAL ENGINEER	SHEET NO. 2 DRAWING NO. S-13
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LANDING



GROUND

1 STAIR DETAIL

28 5-14
NTS

A. GENERAL NOTES:

1. CONSTRUCTION NOTES ARE TYPICAL TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED. SUBMIT TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
2. SHOP DRAWINGS WITH DIRECTIONS AND FOLDING CONDITIONS OF ALL STRUCTURAL STEEL, MISCELLANEOUS IRON, PRE-CAST CONCRETE, ETC. SHALL BE SUBMITTED FOR ENGINEER'S APPROVAL. BEFORE FABRICATION.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE ALL WORK IS TO BEGIN. CHECK WITH MECHANICAL AND ELECTRICAL AND SANITARY CONTRACTORS FOR CONFLICTS. PIPE, DUCTS, ETC. TO BE EMBEDDED IN CONCRETE.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SCAFFOLDING AND BRACING OF THE STRUCTURE FOR ALL LOADS THAT MAY BE IMPOSED DURING CONSTRUCTION.
5. THE SHOWING OF EXCAVATIONS SHALL BE DONE PROPERLY IN ORDER TO PROTECT ADJACENT EXISTING BUILDINGS.
6. IN CASE OF DISCREPANCY IN PLANS, CONSULT AT ONCE WITH THE STRUCTURAL ENGINEER.
7. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
8. FIELD VERIFY ALL DIMENSIONS.

B. CONCRETE AND REINFORCEMENT:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM WITH THE LATEST BUILDING CODE OF AMERICAN CONCRETE INSTITUTE (ACI) AND NATIONAL STRUCTURAL CODE OF THE PHILIPPINES.
2. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH. MAXIMUM SLUMP AS FOLLOWS:

LOCATION	28 DAYS STRENGTH	MINIMUM AGE AGGREGATES	MAXIMUM SLUMP
CURBS AND SLABS ON GRADE EXCEPT FOUNDATION	17.24 MPa (2500 PSI)	25 MM	100 MM
FOUNDATION AND RETAINING WALL	20.68 MPa (3000 PSI)	19 MM	100 MM
COLUMNS AND SHEAR WALL	20.68 MPa (3000 PSI)	19 MM	100 MM

3. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS OTHERWISE NOTED. INFORMATION CONFORMING TO ASTM A615.
4. IN GENERAL, THE LATEST EDITION OF ACI 318, MANUAL OF STANDARD PRACTICE DETAILING REINFORCED CONCRETE STRUCTURES SHALL BE ADHERED TO, UNLESS OTHERWISE SHOWN OR NOTED.
5. MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS. PRACTICE DETAILING REINFORCED CONCRETE STRUCTURES SHALL BE:

SUSPENDED SLAB	25 MM	25 MM
SLAB ON GRADE	25 MM	40 MM
BEAMS, STAIRS, AND COLUMN TIES	40 MM	40 MM
WHERE CONCRETE IS DEPOSITED TO EARTH BUT POURED AGAINST EARTH	40 MM	75 MM
WHERE CONCRETE IS DEPOSITED DIRECTLY AGAINST EARTH	75 MM	75 MM
6. SPICES SHALL BE SECURELY WELDED TOGETHER AND SHALL LAP OR EXTEND IN ACCORDANCE WITH TABLE 1.1 (MINIMUM OF LAP SPICES AND ANCHORAGE LENGTH) UNLESS OTHERWISE SHOWN ON DRAWINGS. SPICES SHOULD BE STAGGERED WHEREVER POSSIBLE.
7. ALL ANCHOR BOLTS, DOWELS AND OTHER INSERTS SHALL BE PROPERLY POSITIONED AND SECURED IN PLACE PRIOR TO PLACING OF CONCRETE.
8. CONTRACTOR SHALL NOTE AND PROVIDE ALL NECESSARIOUS CURING SCHEDULES, EQUIPMENT AND MECHANICAL BARRIERS THAT ARE REQUIRED BY THE ARCHITECTURAL, ELECTRICAL, PLUMBING AND MECHANICAL DRAWINGS.
9. ALL CONCRETE SHALL BE KEPT MOIST FOR A MINIMUM OF SEVEN (7) CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF BURLAP, FOG SPRAYING, CURING COMPOUND OR OTHER APPROVED METHODS.
10. STRIPPING OF FORMS AND SHORES:

FOUNDATION	24 HRS
SUSPENDED SLAB	24 HRS
EXCEPT WHEN ADDITIONAL	3 DAYS

LOADS ARE IMPOSED	
WELLS	14 HRS
SLABS	14 HRS

11. CONSTRUCTION JOINTS IN FLOOR SLABS SHALL BE THE WHOLE SPAN, SAME AS WITH BEAMS AND GIRDERS UNLESS A BEAM INTERSECTS A GIRDER AT A DISTANCE FROM THE JOINT TO TWICE THE DEPTH OF THE BEAM.
12. NO HORIZONTAL CONSTRUCTION JOINT SHALL BE MADE ON SLABS, BEAMS AND GIRDERS.
13. FORMWORK BEAMS AND SLAB SHALL HAVE A CAMBER OF 1/4 PER 10'-0" OF SPAN FOR SLABS, CANTILEVER BEAMS SHALL HAVE A CAMBER OF 3/8 PER 10'-0" OF CANTILEVER SPAN.
14. ADD 3-6MM LENGTH TO ALL COLUMNS WITH EMBEDDED CORNERPOST.

D. MASONRY AND CONCRETE BLOCKS:

1. ALL NON-LAPPED BEARING TYPE CONCRETE BLOCKS SHALL HAVE A UNIT WEIGHT NOT TO EXCEED 8000 FOR LOAD BEARING TYPE CONCRETE BLOCKS. A MINIMUM COMPRESSIVE STRENGTH OF 8.0 MPa (1160 PSI) SHALL BE DEVELOPED.
2. PROVIDE 1-NO EXTRA VERTICAL BARS AT CORNERS, INTERSECTION, END OF WALLS, AND EACH SIDE OF OPENINGS AS SHOWN.
3. LINTEL BEAMS OR LINTEL BLOCKS SHALL BEAR AT LEAST 8 INCHES (203MM) ON EACH SIDE OF MASONRY WALL OPENINGS AS SHOWN.
4. WALL REINFORCEMENTS SHALL BE AS FOLLOWS:

WALL THICKNESS	VERTICAL REINFORCEMENTS	HORIZONTAL REINFORCEMENTS
150MM	100 @ 600MM	100 @ 600MM
125MM	100 @ 600MM	100 @ 600MM
5. BLOCK WALL REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 30 BAR DIAMETERS WHERE SPACED. HORIZONTAL VERTICAL DOWELS FROM FOOTINGS, COLUMNS OR SLABS SHALL EXTEND INTO THE BLOCK WALL A MINIMUM OF 30 BAR DIAMETERS OR A MINIMUM OF 400MM WHICHEVER IS LONGER AND DOWELS TO MATCH VERTICAL REINFORCEMENTS OF WALL.
6. ALL CELLS CONTAINING REINFORCING BARS OR INSERTS SHALL BE THOROUGHLY FILL WITH CONCRETE (GROUT) BEFORE SPECIFICATIONS.
7. PROVIDE LINTEL BEAMS AT EVERY 3M HEIGHT OF CHD WALL.

C. FOUNDATION:

1. FOUNDATION IS DESIGNED FOR AN ALLOWABLE SOIL BEARING CAPACITY OF 100 KPa (2.2 KSI) AS PER ACTUAL SOIL BORING TEST RESULTS.
2. FOUNDATION SHALL REST ON NATURAL SOIL, UNLESS OTHERWISE NOTED BY THE ENGINEER. NO PART OF FOUNDATION SHALL BEAT ON FILL.
3. EXISTING SOIL SHALL HAVE OPTIMUM DENSITY OF 95%.
4. A MINIMUM OF 150 MM OF TOP SOIL SHALL BE REMOVED FROM THE EXISTING GROUND. TOP SOIL SHALL NOT BE USED AS BACKFILL AND THEREFORE SHALL BE DISCARDED.

2 GENERAL NOTES & SPECIFICATION

28 5-14
NTS

PREPARED FROM THE OFFICE OF:



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
REGIONAL FIELD OFFICE
AGUILA RD., DENILA, SAN FERNANDO CITY, LA UNION
REGIONAL AGRICULTURAL ENGINEERING DIVISION

TEL: (093)-452-8800 FAX: (093)-452-8800

PROJECT TITLE:

CONSTRUCTION OF LOCOS SUR
RESEARCH CENTER MULTI-CROP
WAREHOUSE CUM OFFICE

AREAL SAN JUAN, LOCOS SUR

PREPARED BY:

JEFFERSONIA SAMONTE, RCE
TECHNICAL STAFF

CHECKED & REVIEWED:

MARK HARRYET PASTOR, ABE
CHIEF ENGINEER

RECOMMENDING APPROVAL:

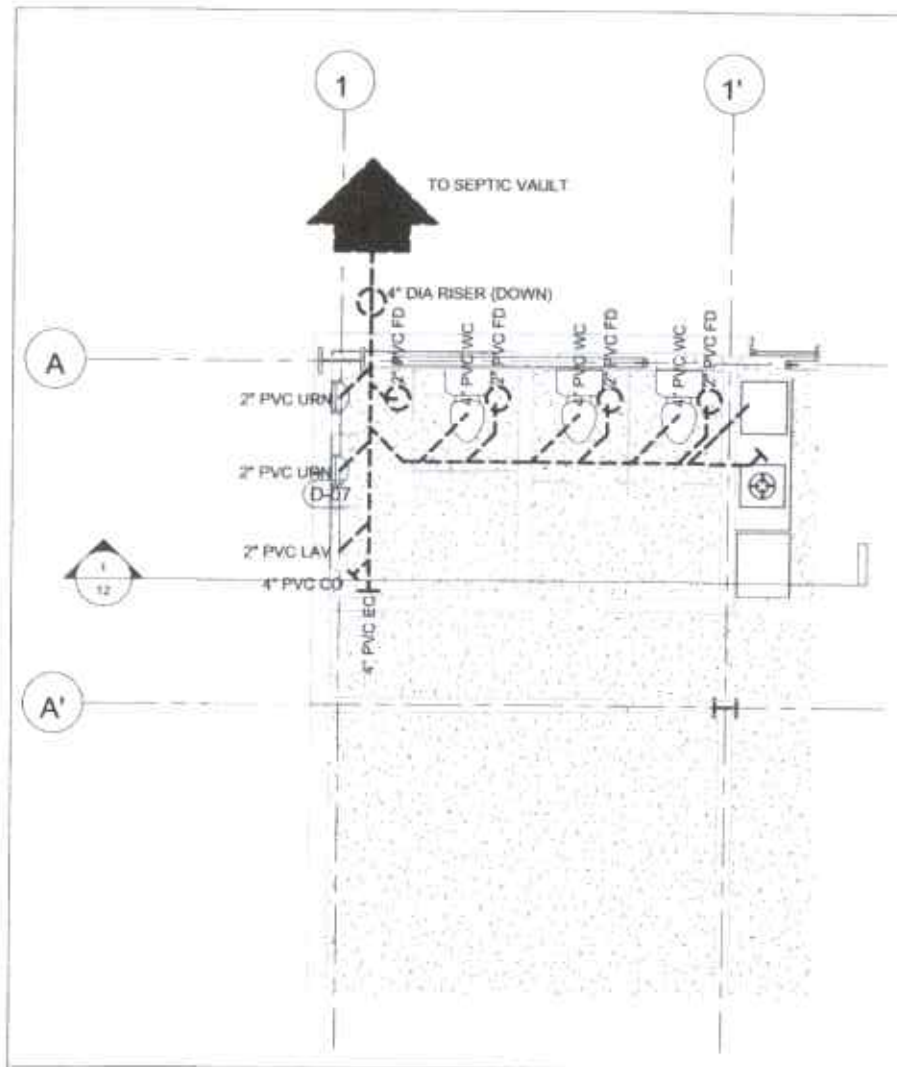
DENISY RECTAC, ABE
CHIEF OF OPERATIONS

APPROVED:

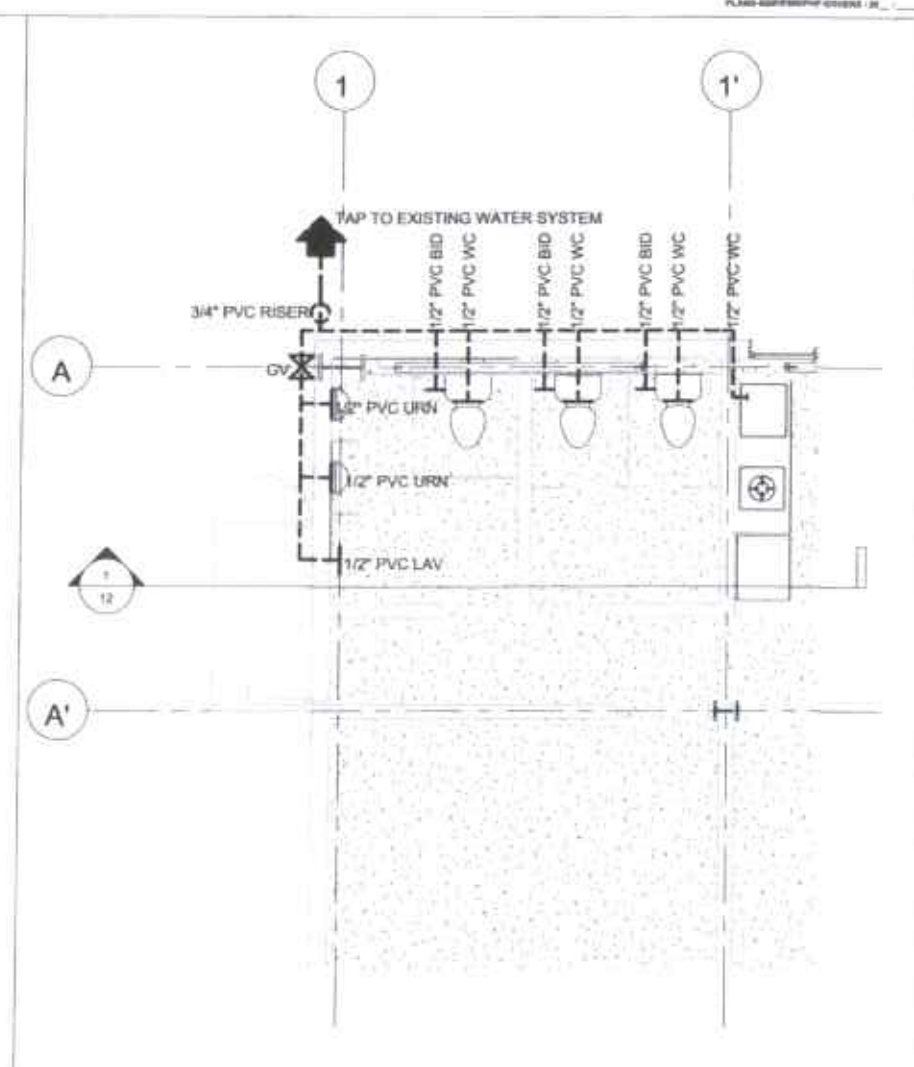
JOHN P. PASCUAL, EVM
REGIONAL SUPERVISORY ENGINEER

SHEETING:

28
SHEETING NO.
S-14

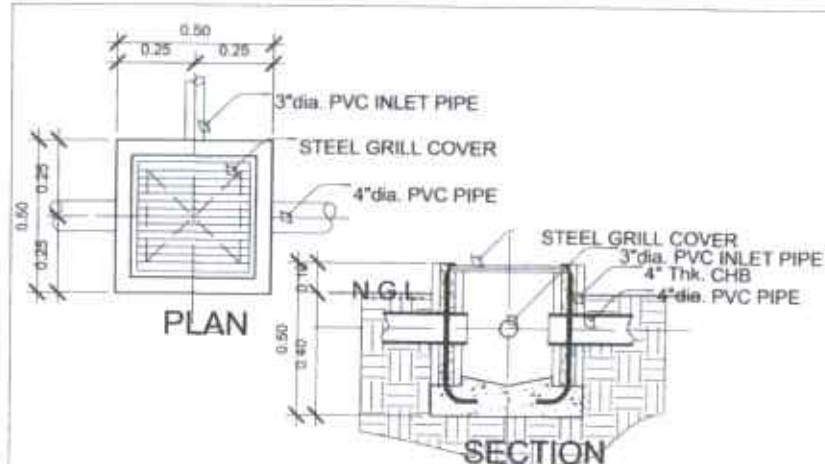


1 SEWERLINE LAYOUT
NTS

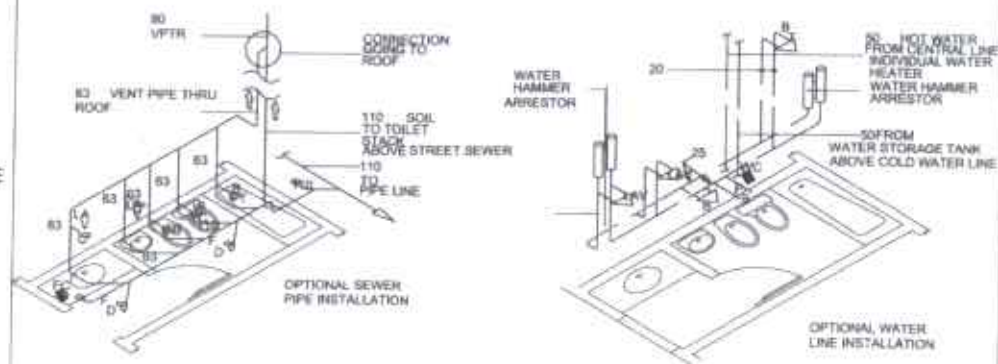


2 WATERLINE LAYOUT
NTS

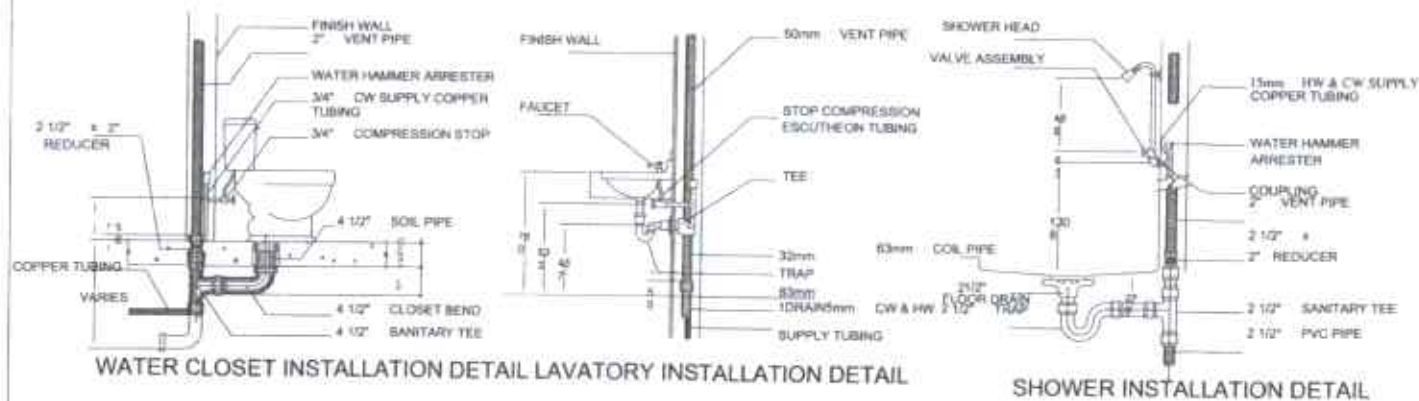
PREPARED FROM THE OFFICE OF: REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE CONSTRUCTION OF ILICOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE	PREPARED BY AVENIO E. URB JR.	CHECKED & REVIEWED MARK HARRY G. PASTOR, ABE	RECOMMENDED APPROVAL DEPARTMENT OF AGRICULTURE	APPROVED JOHN B. PASCUAL, DVM	SHEET NO. 28 DRAWING NO. SP-01
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1 CATCH BASIN DETAIL
NTS



2 ISOMETRIC VIEW
25 SP-03 NTS

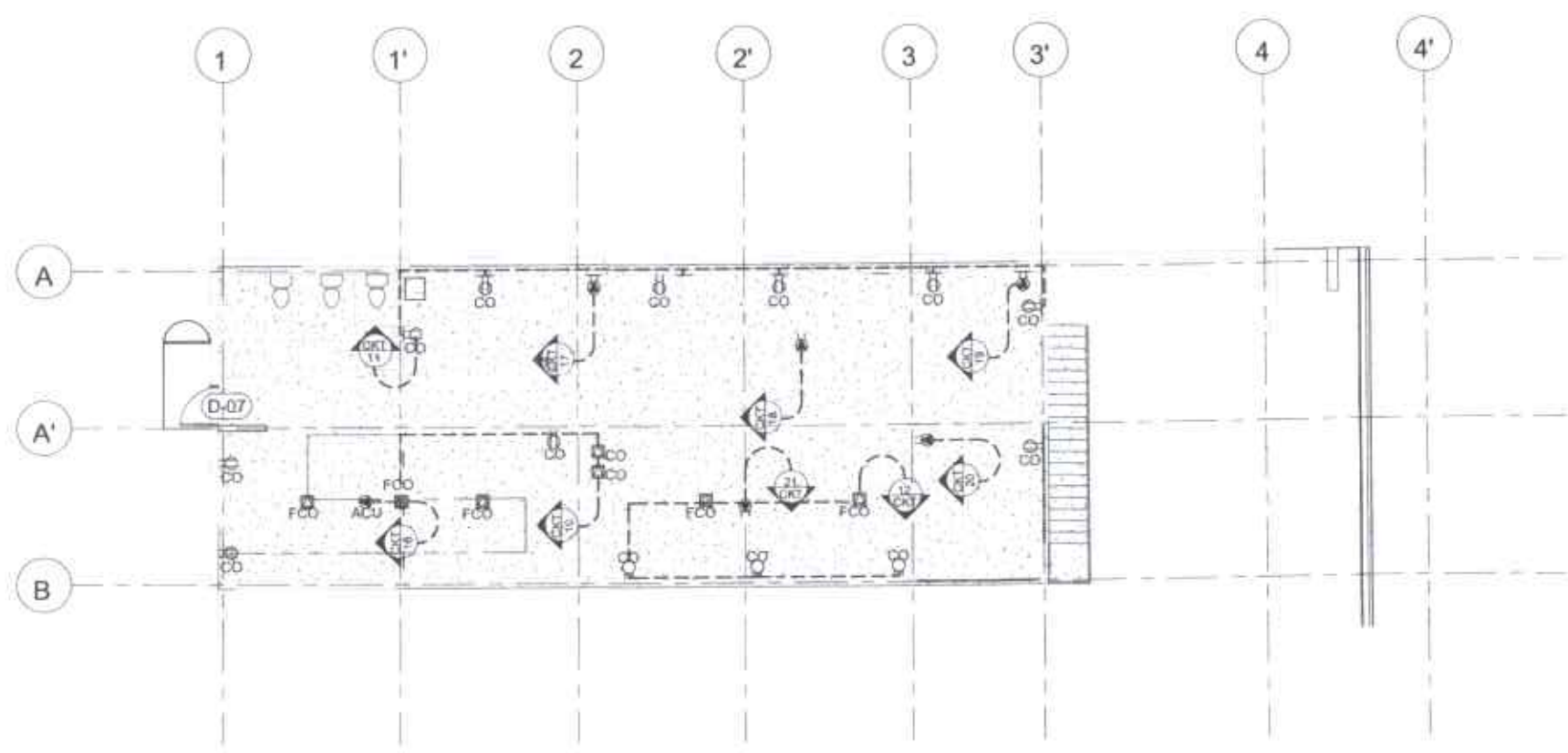


3 FIXTURE DETAIL
NTS

PLUMBING LEGENDS:

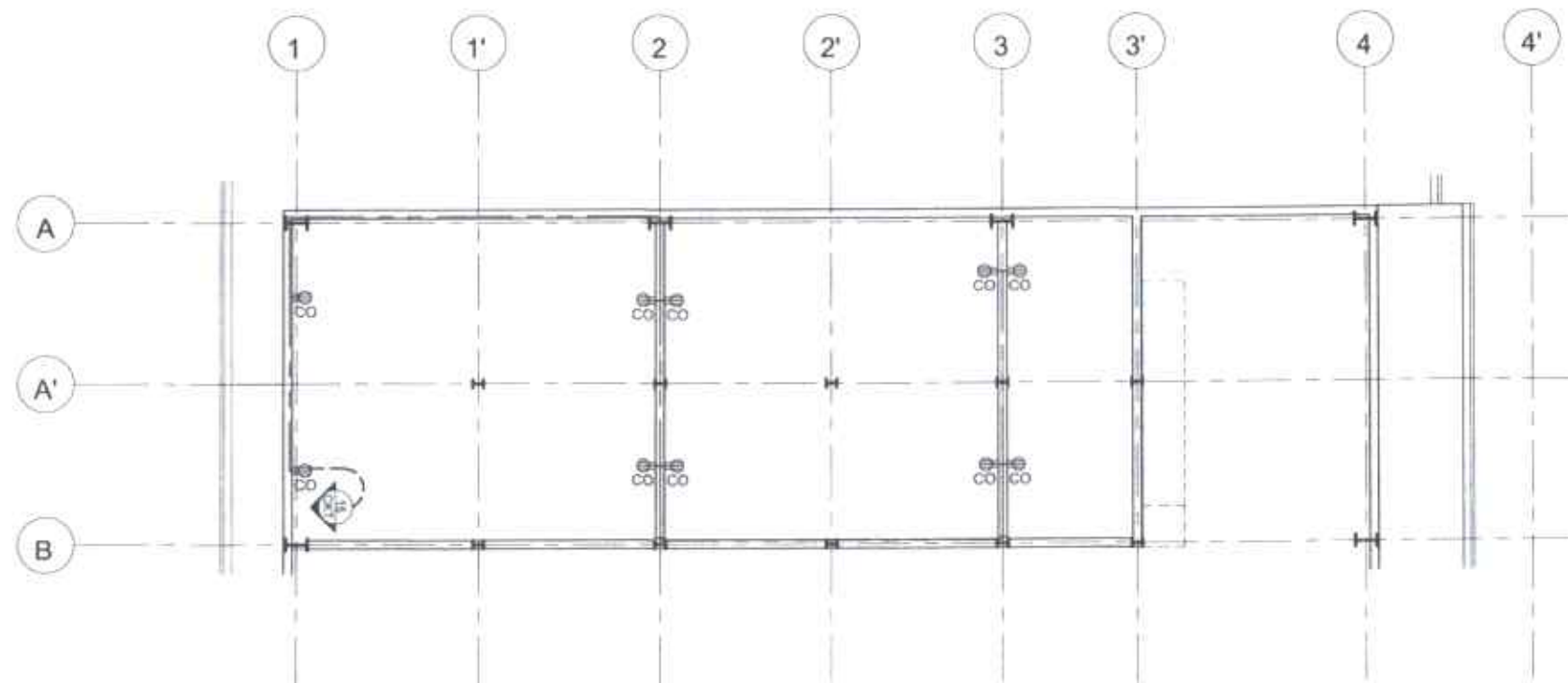
WG WATER CLOSET	VTR VENT THRU ROOF
FD FLOOR DRAIN	SC SEPTIC VAULT
LAV LAVATORY	LC LEACHING CHAMBER
SH SHOWER HEAD	DC DIGESTIVE CHAMBER
KSK KITCHEN SINK	MH MAN HOLE
CO CLEAN OUT	M METER
BP SOIL PIPE	HB HOSE BIBB
CB CATCH BASIN	DRAINAGE LN ———
FC FAUCET	SEWER LN ———
SHO SHOWER	CLEAN WATER LN ———
(M) WATER METER	
GV GATE VALVE	
CV CHECK VALVE	

4 SYMBOL
29 SEP-07 NTS



1 OFFICE SPACE CONVENIENCE OUTLET LAYOUT
 29 E-01 NTS

PREPARED FROM THE OFFICE OF:  REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE I AGUILA RD., SEVILLA, SAN VICENTE CITY, LA UNION REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE: CONSTRUCTION OF ILIGOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE DESIGN: ENR JUAN ILIGOS SUR	PREPARED BY: EDEN RUTH S. INES, ABE TECHNICAL STAFF	CHECKED & REVIEWED: MARK HARRY G. PASTOR, ABE DEPT. STAFF	RECOMMENDING APPROVAL: DEBORA I. TACTAC, ABE STD. FURN. SECTIONS	APPROVED: JOHN B. PASCUAL, DVM CHIEF REGIONAL EXECUTIVE ENGINEER	SHEET NO. 29 DRAWING NO. E-01
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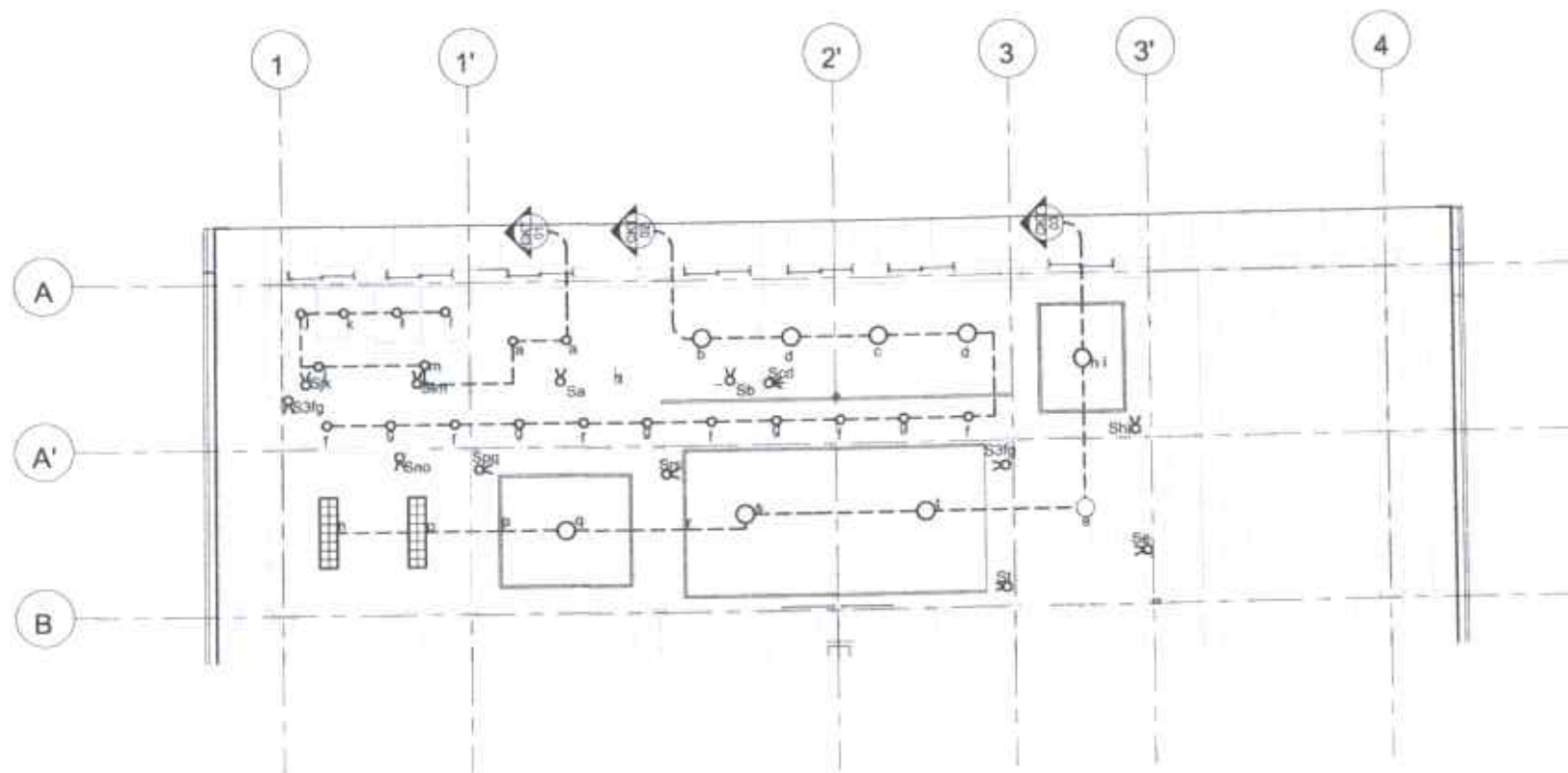
1 STORAGE AREA LIGHTING LAYOUT
 30 E-02 NTS

PREPARED FROM THE OFFICE OF  REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE AGUILA RD., BAYELA, SAN FERNANDO CITY, LA UNION REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE BRIG. SAN JUAN, ILOCOS SUR	PREPARED BY  EDEN RUTH B. INES, ABE TECHNICAL STAFF	CHECKED & REVIEWED  MARK HARRY G. PASTOR, ABE CHIEF AND	RECOMMENDING APPROVAL  EDMAR TACTAC, ABE RTO FOR IRRADIATION	APPROVED  JOHN B. PASCUAL, DVM CHIEF REGIONAL EXECUTIVE DIRECTOR	SHEET NO. 30 DRAWING NO. E-02
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1 HEAVY DUTY CONVENIENCE OUTLET LAYOUT
 31 E-03
 NTS

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE I AGUILA RD., BAYELA, SAN FERNANDO CITY, LA UNION REGIONAL AGRICULTURAL ENGINEERING DIVISION	PROJECT TITLE CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE	PREPARED BY EDEN RUTH S. INES, ABE TECHNICAL STAFF	CHECKED & REVIEWED MARK HARRY O. PASTOR, ABE (ENR ABE)	RECOMMENDING APPROVAL DESSIST CRISTIAN, ABE FOR TOP OPENING	APPROVED JOSUE VASCOAL, DVM REGIONAL EXECUTIVE DIRECTOR	SHEET NO. 31 DRAWING NO. E-03
	PREPARED FROM THE OFFICE OF					



1 OFFICE SPACE LIGHTING LAYOUT
NTS

PREPARED FROM THE OFFICE OF:



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
REGIONAL FIELD OFFICE 1
NAGLA RD., SEVILLA, SAN FERNANDO CITY, LA UNION
REGIONAL AGRICULTURAL ENGINEERING DIVISION

PROJECT TITLE:

CONSTRUCTION OF ILOCOS SUR
RESEARCH CENTER MULTI-CROP
WAREHOUSE CUM OFFICE
BRIEF: SAN ALON, ILOCOS SUR

PREPARED BY:

EDEN RUTH S. INES, ABE
REGIONAL STAFF

CHECKED & REVERSED:

MARK HARRY O. PASTOR, ABE
CHECKED

RECOMMENDING APPROVAL:

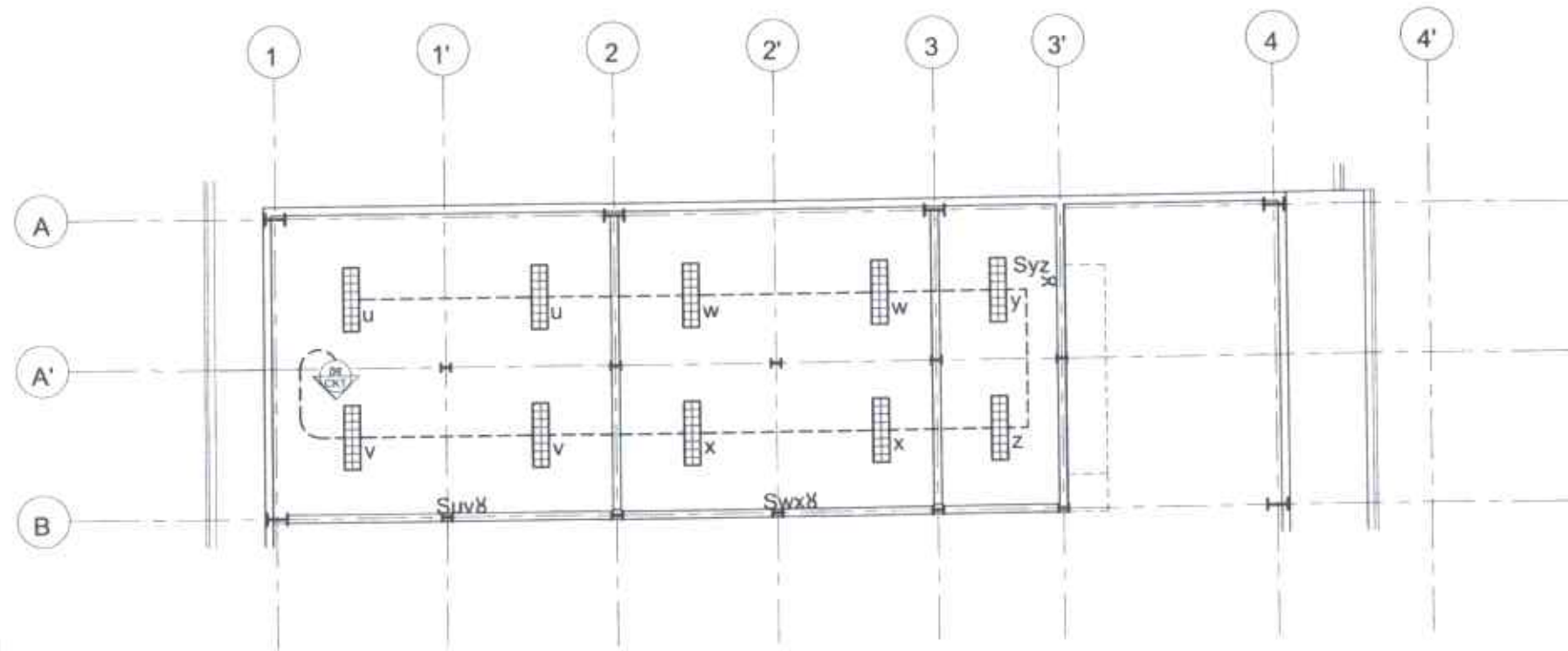
DENNIS TACTAC, ABE
FOR FOR OPERATIONS

APPROVED:

JOHN B. PASCUAL, DVM
REGIONAL EXECUTIVE DIRECTOR

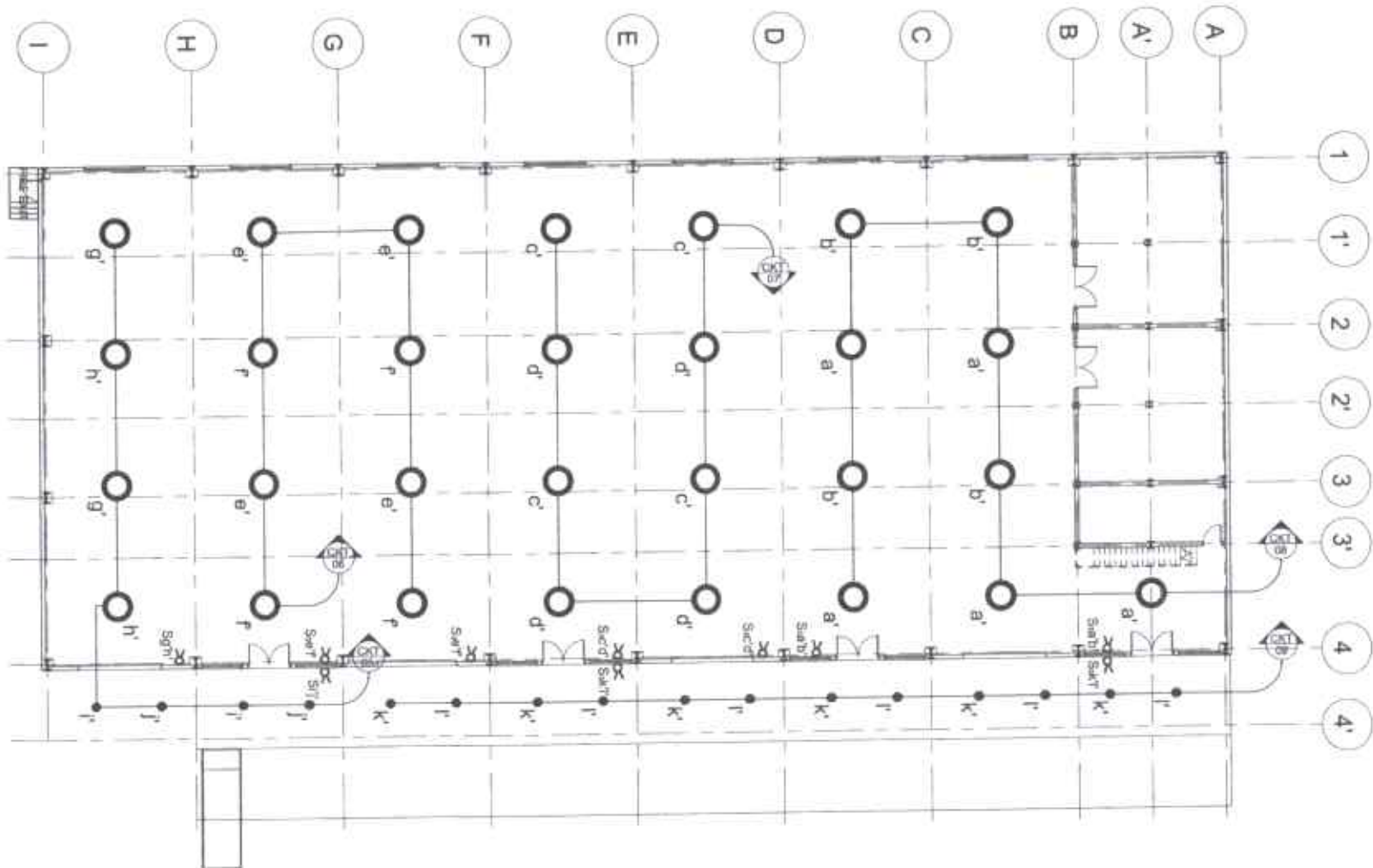
SHEET NO.

32
DRAWING NO.
E-04



1 STORAGE AREA LIGHTING LAYOUT NTS

PREPARED FROM THE OFFICE OF:  DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE I AGAÑA, P.R. - VIEJA SAN FERNANDO CITY, L.A. UNION REGIONAL AGRICULTURAL ENGINEERING DIVISION PP-400-000 Rev. 01.08 Date: 01/08/08	PROJECT TITLE: CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE 4000L SAN JUAN, ILOCOS SUR	PREPARED BY:  EDEN RUTH B. INES, ABE TECHNICAL STAFF	CHECKED & REVIEWED:  MARK HARRY G. PASTOR, ABE CHIEF, ABE	RECOMMENDING APPROVAL:  BENITO T. TACTAC, ABE CHIEF, ABE	APPROVED:  BENITO T. TACTAC, ABE CHIEF, ABE	SHEET NO.: 33 DRAWING NO.: E-05
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1 WAREHOUSE LIGHTING LAYOUT
NTS



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
REGIONAL FIELD OFFICE I
AGUILA RD., BENILLA, SAN FERNANDO CITY, LA UNION
REGIONAL AGRICULTURAL ENGINEERING DIVISION

PP-000-000 Rev. 01.01.2010

PROJECT TITLE
CONSTRUCTION OF ILOCOS SUR
RESEARCH CENTER MULTI-CROP
WAREHOUSE CUM OFFICE
BASIC DATA SURV. ILOCOS SUR

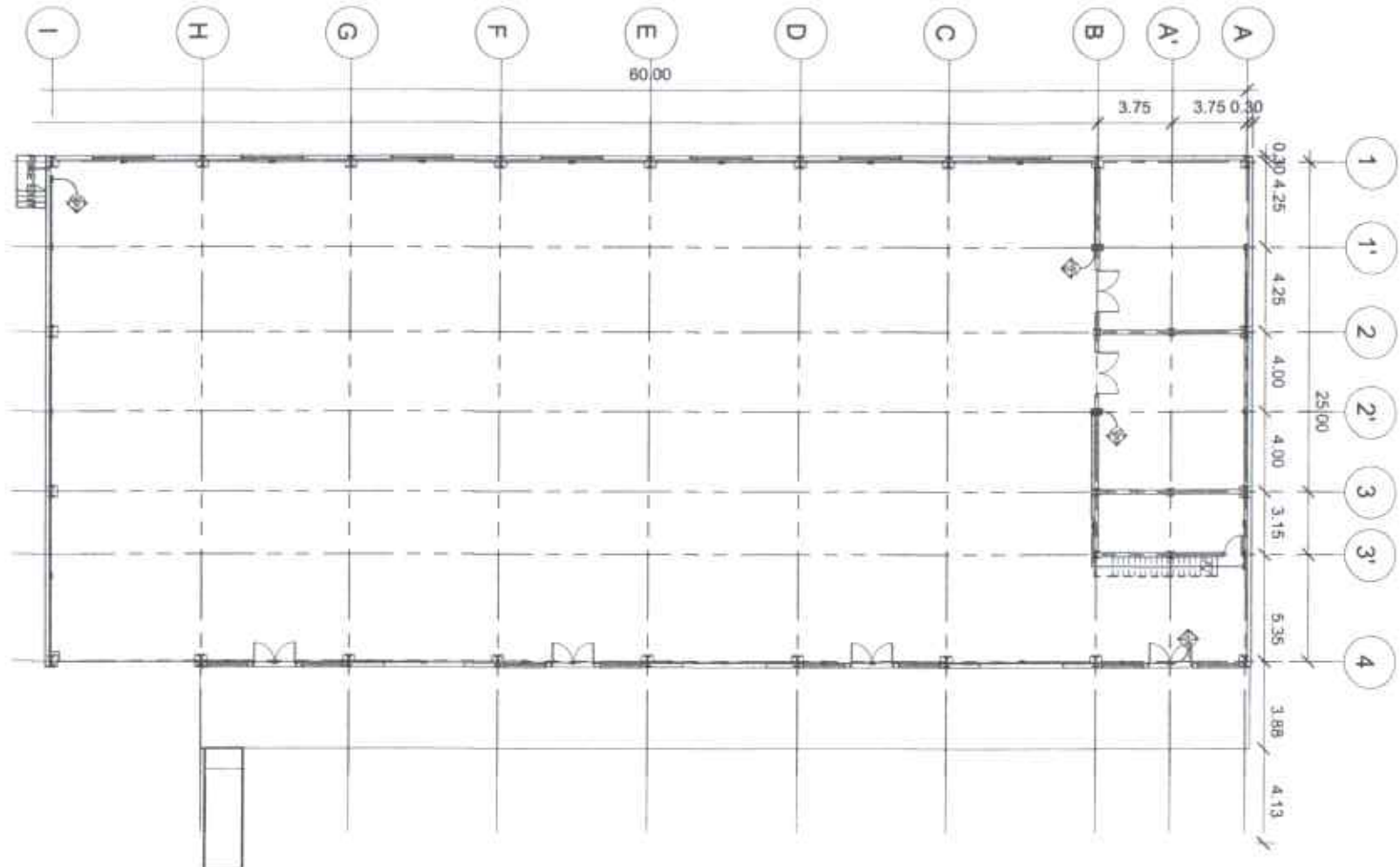
PREPARED BY
EDEN RUTH S. INES, ABE
TECHNICAL STAFF

CHECKED & REVIEWED
MARK HARRY A. PASTOR, ABE
(SENIOR STAFF)

RECOMMENDED APPROVAL
DENNIS T. TACTAY, ABE
(SENIOR STAFF)

APPROVED
JOHN B. PASQUAT, ABE
REGIONAL EXECUTIVE DIRECTOR

SHEET NO.
3
DRAWING NO.
E-06



1 GROUND FLOOR EXIT AND EMERGENCY LAYOUT
NTS



PREPARED FROM THE OFFICE OF:
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
REGIONAL FIELD OFFICE I
AGUIA RD., BAYALAN, SAN FERNANDO CITY, LA UNION
REGIONAL AGRICULTURAL ENGINEERING DIVISION
PL-ARD-002 Rev. 01, 05, 06 Date: 01/05/06

PROJECT TITLE
CONSTRUCTION OF ILOCOS SUR
RESEARCH CENTER MULTI-CROP
WAREHOUSE CUM OFFICE
SHEET: SAN JUAN, ILOCOS SUR

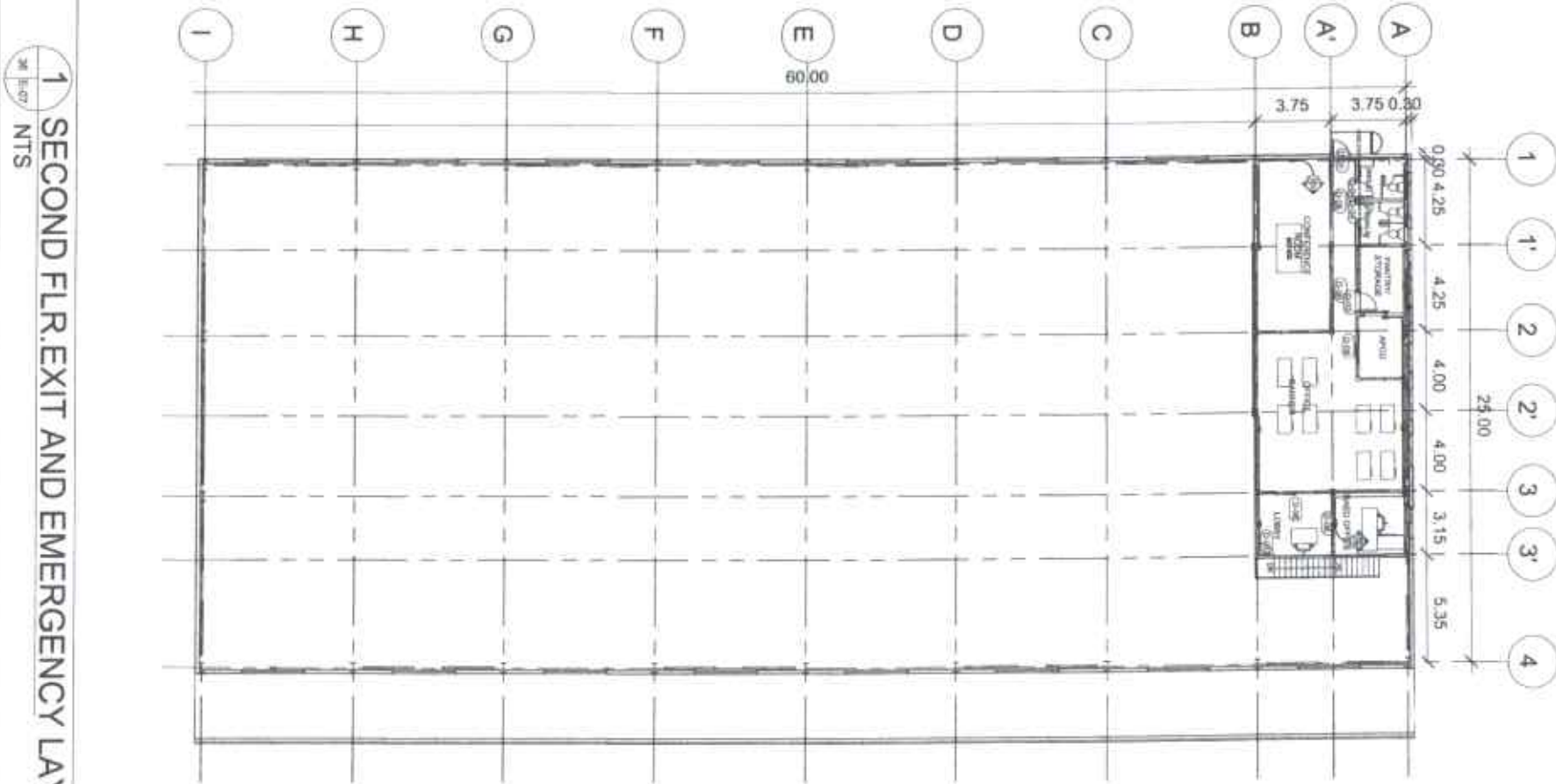
PREPARED BY
EDEN RUTHERFORD, ABE
TECHNICAL STAFF

CHECKED & REVIEWED
MARK HARRY S. PASTOR, ABE
CHIEF ENGINEER

RECOMMENDING APPROVAL
DENNIS T. TACTAC, ABE
AS FOR OPERATIONS

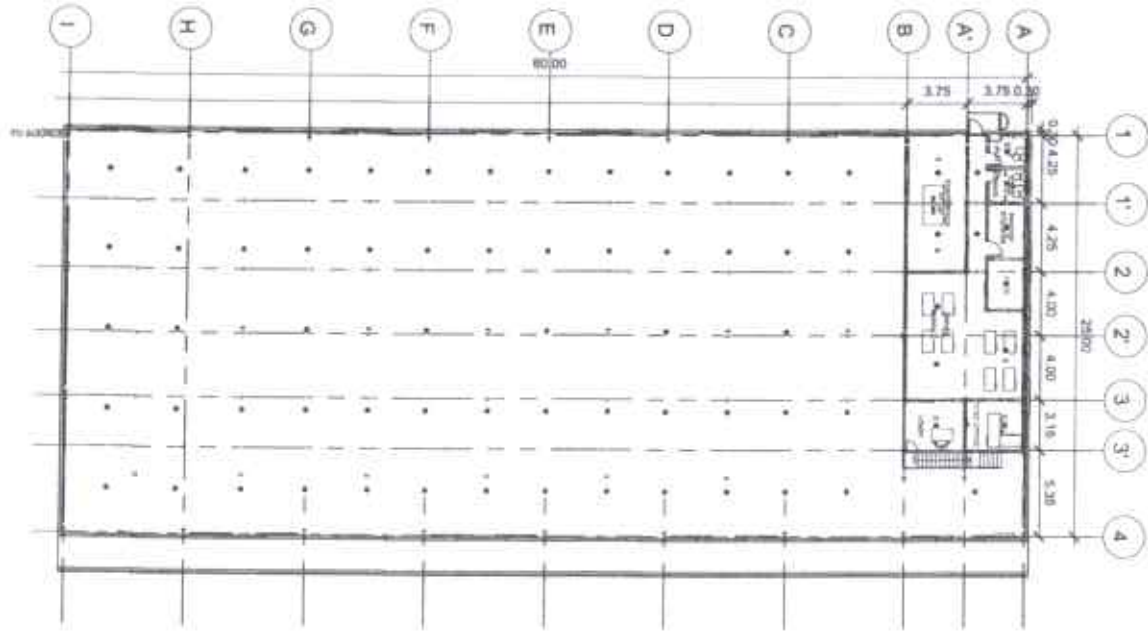
APPROVED
JOY B. PASQUAL, CIVIL
CHIEF ENGINEERING EXECUTIVE DIRECTOR

SHEET NO.
25
DRAWING NO.
E-08



1 SECOND FLR.EXIT AND EMERGENCY LAYOUT
NTS

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2 SECOND FLR. FIRE SPRINKLER SYSTEM
NTS



1 FIRST FLR. FIRE SPRINKLER SYSTEM
NTS



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
REGIONAL FIELD OFFICE
INDULA RD., SEBILLA, SAN PETERING CITY, LA UNION
REGIONAL AGRICULTURAL ENGINEERING DIVISION

PROJECT TITLE
CONSTRUCTION OF ILOCOS SUR
RESEARCH CENTER MULTI-CROP
WAREHOUSE CUM OFFICE
HIREL MR. JUAN LOOC SUR

PREPARED BY
EDEN RUTH B. INES, ABE
TECHNICAL STAFF

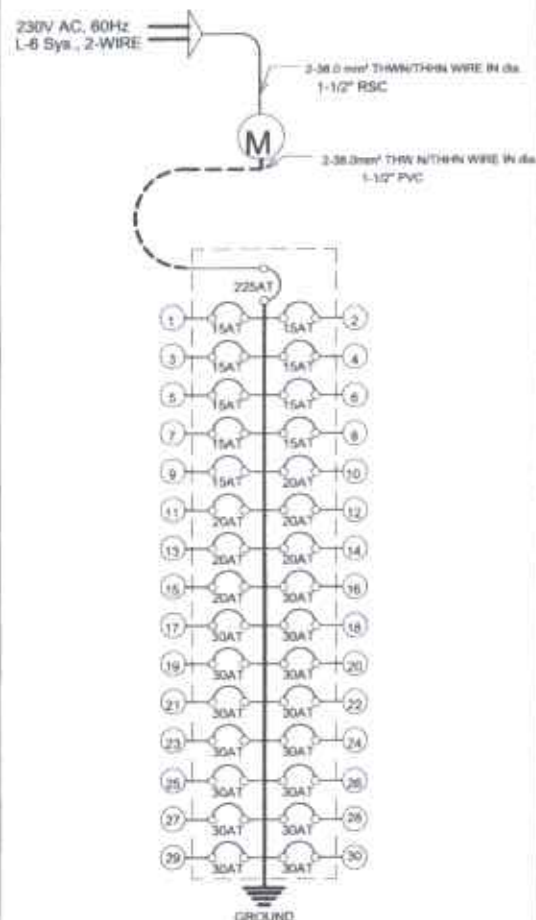
CHECKED & REVIEWED
MARK HARRY G. PASTOR, ABE
CHIEF ENGINEER

RECOMMENDING APPROVAL
DENNIS B. PASTOR, ABE
FOR SPECIALIZATION

APPROVED
JOSE P. PASCUAL, CIVIL
REGIONAL EXECUTIVE DIRECTOR

SHEET NO.
3
DRAWING NO.
E-07

BRANCH CIRCUIT NUMBER	LOAD DESCRIPTION	NUMBER OF L.O.	VA LOAD	VOLTAGE	CURRENT	BRANCH CIRCUIT PROTECTION	WIRE	PVC CONDUIT
ckt 1	LIGHTING OUTLET	8	800	230	3.48	15 AT	2 - 2.0mm ² THHN Cu WIRE	20MM Ø
ckt 2	LIGHTING OUTLET	15	1500	230	6.52	15 AT	2 - 2.0mm ² THHN Cu WIRE	20MM Ø
ckt 3	LIGHTING OUTLET	7	700	230	3.04	15 AT	2 - 2.0mm ² THHN Cu WIRE	20MM Ø
ckt 4	LIGHTING OUTLET	10	1000	230	4.35	15 AT	2 - 2.0mm ² THHN Cu WIRE	20MM Ø
ckt 5	LIGHTING OUTLET	8	800	230	3.48	15 AT	2 - 2.0mm ² THHN Cu WIRE	25MM Ø
ckt 6	LIGHTING OUTLET	8	800	230	3.48	15 AT	2 - 2.0mm ² THHN Cu WIRE	25MM Ø
ckt 7	LIGHTING OUTLET	8	800	230	3.48	15 AT	2 - 2.0mm ² THHN Cu WIRE	25MM Ø
ckt 8	LIGHTING OUTLET	9	900	230	3.91	15 AT	2 - 2.0mm ² THHN Cu WIRE	25MM Ø
ckt 9	LIGHTING OUTLET	12	1200	230	5.22	15 AT	2 - 2.0mm ² THHN Cu WIRE	25MM Ø
ckt 10	CONVENIENCE OUTLET	8	1440	230	6.26	20 AT	2 - 3.5mm ² THHN Cu WIRE	25MM Ø
ckt 11	CONVENIENCE OUTLET	7	1260	230	5.48	20 AT	2 - 3.5mm ² THHN Cu WIRE	25MM Ø
ckt 12	CONVENIENCE OUTLET	5	900	230	3.91	20 AT	2 - 3.5mm ² THHN Cu WIRE	25MM Ø
ckt 13	CONVENIENCE OUTLET	2	360	230	1.57	20 AT	2 - 3.5mm ² THHN Cu WIRE	25MM Ø
ckt 14	CONVENIENCE OUTLET	8	1440	230	6.26	20 AT	2 - 3.5mm ² THHN Cu WIRE	25MM Ø
ckt 15	CONVENIENCE OUTLET	10	1800	230	7.83	20 AT	2 - 3.5mm ² THHN Cu WIRE	25MM Ø
ckt 16	ACU	1	4474.20	230	19.45	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 17	ACU	1	1491.40	230	6.48	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 18	ACU	1	4474.20	230	19.45	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 19	ACU	1	1491.40	230	6.48	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 20	ACU	1	1491.40	230	6.48	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 21	ACU	1	4474.20	230	19.45	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 22	CONVENIENCE OUTLET	7	1440	230	6.26	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 23	CONVENIENCE OUTLET	8	1440	230	6.26	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 24	CONVENIENCE OUTLET	8	1440	230	6.26	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 25	CONVENIENCE OUTLET	8	1440	230	6.26	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 26	CONVENIENCE OUTLET	8	1440	230	6.26	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 27	CONVENIENCE OUTLET	10	1800	230	7.83	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 28	SPARE	1	1840	230	8.00	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 29	SPARE	1	1840	230	8.00	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
ckt 30	SPARE	1	1840	230	8.00	30 AT	2 - 5.5mm ² THHN Cu WIRE	25MM Ø
TOTAL			48,117.20		209.2			



1 SINGLE LINE DIAGRAM

38 E-12 NTS

$$I \text{ TOTAL} = \frac{0.80(48,117.20 + 0.25(1840))}{230}$$

$$= 168.96 \text{ AMPS}$$

FOR SERVICE ENTRANCE CONDUCTOR:

USE: 2-38.0 mm² THHN/THWN CU. WIRE IN 1-1/2" DIA. RSC PIPE (EXPOSED)

FOR OVERCURRENT PROTECTION:

USE: 1- 225AT MCCB, 2P, 240V, 60HZ, BOLT ON CKT. BREAKER

2 LOAD COMPUTATION

38 E-12 NTS

GENERAL ELECTRICAL SPECIFICATION

1. ELECTRICAL WORKS INCLUDED HEREIN SHALL BE DONE ACCORDANCE WITH THE RULES AND REGULATION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE AND THE LOCAL ELECTRIC COOPERATIVE. (ISECO).
2. ALL WIRINGS SHALL BE INSTALLED IN STANDARD PVC PIPE SCHEDULE 40 EMBEDDED INSIDE HOLLOW BLOCKS STRUCTURES OR RUN BETWEEN CEILING AND ROOFING.
3. ALL SPICES SHALL BE MADE AT JUNCTION BOXES AND OTHER LIKE APPROVED MATERIALS FOR PARTICULAR PURPOSES.
4. MOUNTING HEIGHT:

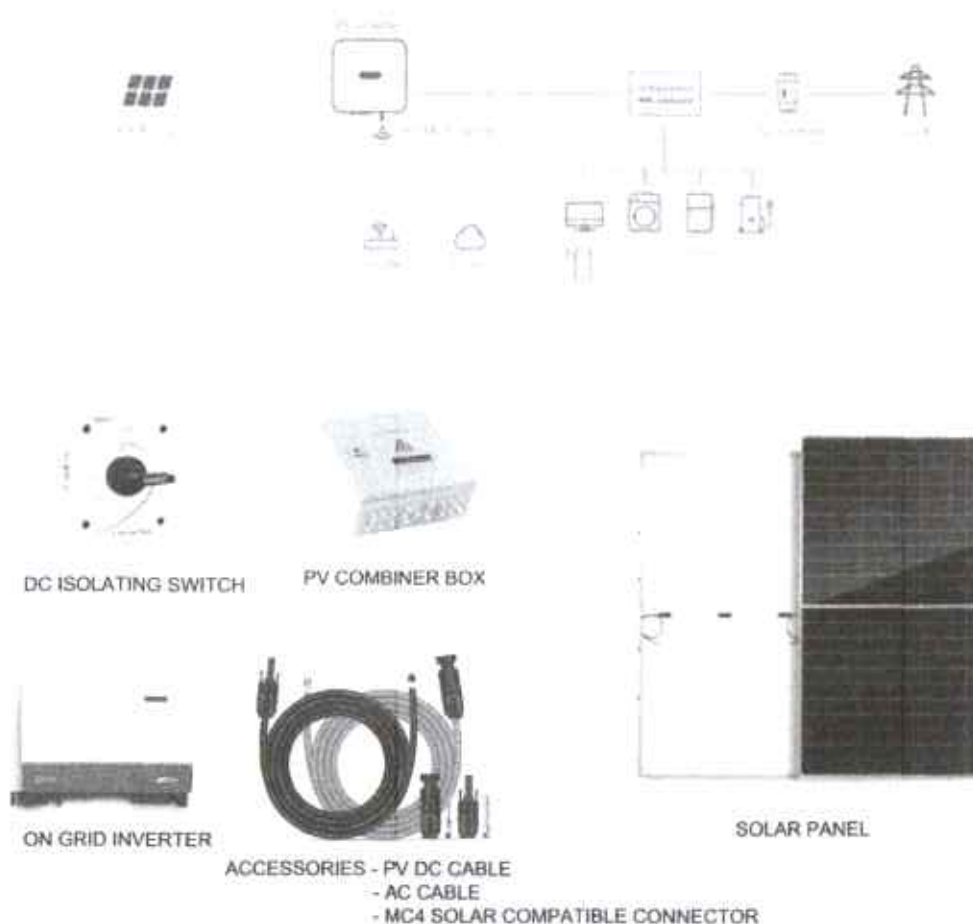
A. WALL SWITCHES	1.375 MTS.
B. CONVENIENCE OUTLETS	0.30 MTS.
C. PANEL BOARD	1.80 MTS.
D. WALL PUMPS	1.63 MTS.
5. SERVICE LINE TO BE USED SHALL BE 230 V, 60 HZ.
6. VERIFY POINT OF POWER SERVICE ENTRANCE.
7. WHENEVER REQUIRED OR NECESSARY, PULL BOXES AND JUNCTION BOXES SHALL BE INSTALLED AT CONVENIENT LOCATIONS, ALTHOUGH SUCH BOXES ARE NOT SHOWN.
8. ALL ELECTRICAL WORKS SHALL BE DONE UNDER THE SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER OR MASTER'S ELECTRICIAN.

- POWER SERVICE ENTRANCE
- KILO WATT HOUR METER
- PANEL BOARD
- CIRCUIT BREAKER
- CIRCUIT RUN
- SWITCH RUN
- ONE GANG SWITCH
- TWO GANG SWITCH
- THREE GANG SWITCH
- THREE WAY SWITCH
- 6" RECESSED LED LIGHT
- UFO TYPE HIGH BAY LIGHT 150W
- BULB OUTLET
- 4" RECESSED LED PIN LIGHT
- CONVENIENCE OUTLET
- ACU OUTLET
- LOUVER TYPE LED LIGHT
- CIRCUIT NUMBER
- HEAVY DUTY CONVENIENCE OUTLET
- EMERGENCY LIGHT
- EMERGENCY EXIT
- FIRE SPRINKLER
- SMOKE DETECTOR
- FIRE ALARM BELL
- FIRE ALARM CONTROL PANEL

3 ELECTRICAL SYMBOLS

38 E-12 NTS

System Connection



30KW ON-GRID SOLAR SYSTEM CONNECTION

GENERAL SPECIFICATION

SOLAR PANEL (250W MIN.)

1. Mono/Poly/Black etc. all type solar panel High Efficiency half cell/bifacial solar modules with frames
2. 25 years Warranty
3. Conversion Efficiency over 21%
4. Anti-reflective and anti-soiling surface power loss from dirt and dust
5. Excellent mechanical load resistance
6. PID Resistant, High salt and ammonia resistance

ON-GRID PV INVERTER

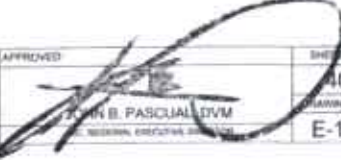
1. 5 years standard warranty
2. Max. Efficiency 99%
3. Integrated DC switch for added safety protection
4. Power factor continuously adjustable
5. Transformer-less design and high power density
6. Flexible communication connection if available

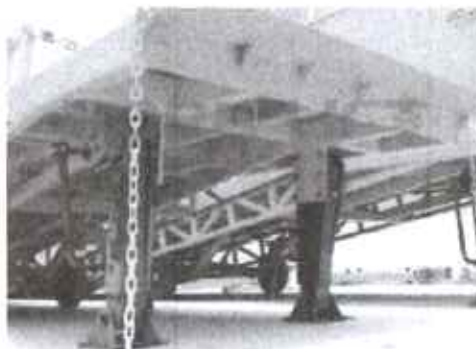
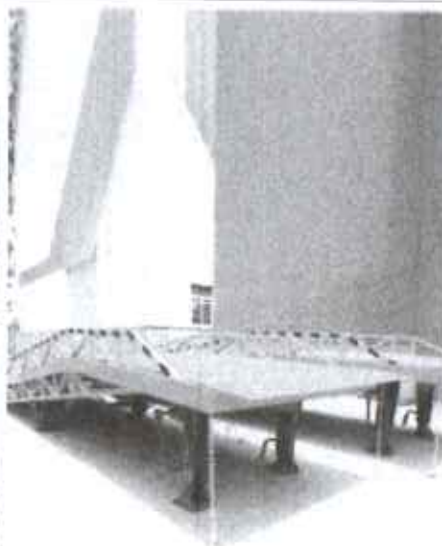
PV COMBINER BOX

1. Customized PV combiner box for solar panels connection
2. Anti-Reverse diode/DC Circuit Breaker/DC fuse/Surge protection device included
3. Lighting Protection
4. IP65 Waterproof
5. Applicable for outdoor PV systems

DC ISOLATING SWITCH

1. Rated Voltage: 1000VDC to 1200VDC > Rated Current: 10A/16A/20A/25A/32A
2. IP66 Waterproof degree
3. Minimum Certificates: CE/CB/TUV/IEC/SAA

PREPARED FROM THE OFFICE OF:  REPUBLIC OF THE PHILIPPINES DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE ALABALA RD., BAYLARAN, SAN FERNANDO CITY, LA UNION REGIONAL AGRICULTURAL ENGINEERING DIVISION PD-400-402 Rev. 10, 07c Rule 110B2004	PROJECT TITLE: CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE GREE: SAN JUAN S. OCHOA SUR	PREPARED BY:  EDEN RUTH S. INES, ABE REGIONAL STAFF	CHECKED & REVIEWED:  MARK HARRY O. PASTOR, ABE CHIEF STAFF	RECOMMENDING APPROVAL:  DENNIS I. TACANAN, ABE RFO COORDINATOR	APPROVED:  JOHN B. PASCUAL, DVM REGIONAL EXECUTIVE SUPERVISOR	SHEET NO. 40 DRAWING NO. E-13
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MOBILE LOADING DOCK RAMP (10 TON CAPACITY)

MAIN SPECIFICATIONS:

1. Overall dimensions: 11200mm×2000mm×1400mm
2. Forklift suspensive board: 2500mm*2000mm
3. Leading board: 500mm* 600mm
4. Junction: 400mm*2000mm
5. Moving model: pulled
6. Adjusting: manual (electric control is optional)
7. Adjustable height: 1100mm~1700mm

CONFIGURATION:

1. Main girder: 160mm*80mm*4.5mm; Manganese steel rectangular tube.
2. Vice-girder: 120mm*60mm*4.5mm; Manganese steel rectangular tube.
3. PLATFORM: Full paved by steel sheet and 8mm Checkered Steel Plate;
8 * 8 garland stencil, do anti-skid processing
4. Hydro-cylinder: both way high precision anti-wear hydro-cylinder.
F80 F50*2pieces with locking device for fall protection.
5. Hydraulic Pipe: high pressure pipe with double expanded metal protected.
6. Hydraulic Oil: 32# anti-wear Hydraulic Oil.
7. Obturating ring: Brand Valqua Seal (import from Japan)
8. Guard railing: 40mm*60*3mm steel rectangular tube
9. Tires: Solid tires 500-8 * 2pieces
10. Color: optional. Painted by enamel paint (twice priming paint, once finishing paint)

PROJECT TITLE : CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE
PROJECT LOCATION: DA-ISReC, SAN JUAN, ILOCOS SUR

GENERAL SPECIFICATIONS

General Conditions - All parts of the construction must comply with the satisfaction and approval of the Architect/Engineer and the Owner.

Improvement shall conform with all the requirements of the National Building Code, as well as the local rules and regulations of the Municipality of San Juan, Ilocos Sur.

I. GENERAL REQUIREMENTS

1.00 ls

- ◆ Billboard must now follow a standard design, dimension, and letter sizes on a white background and measure 8ft x 8ft,
- ◆ Billboards must be installed in front of the projects,
- ◆ Before construction, the Contractor shall coordinate with the property owner or end-user for necessary documents needed in securing necessary permits such as Building Permit and FSEC from the Local Government Unit (LGU) where the property is located,
- ◆ Processing and securing of permits required for electrical tapping, installation of Billboard will be secured and done by the Constructor before construction,
- ◆ After construction, application and securing Occupancy Permit, FSIC and Electrical Tapping should be done by the Contractor including installation of Metal Brass Engraved Project Marker before turn over and acceptance of the project,
- ◆ Failure to obtain these permits can result in penalties from the concern agencies and include

II. STAGING AREA

1.00 ls

- ◆ Contractor shall provide, erect, install, maintain, alter as necessary, and remove on completion or when directed by the Engineer, temporary facilities, field office and as described or specified in this section.

III. OCCUPATIONAL SAFETY AND HEALTH

1.00 ls

- ◆ Provide project billboard that conforms with COA Circular No.2013-004 "Information and Publicity on Programs/Projects/Activities of Government Agencies;"
- ◆ Must comply with Construction Safety and Health (DOLE order # 13 series of 1998).
- ◆ Provide all workers the necessary equipment (PPE) for the eyes, face, feet and all crucial body parts exposed to hazardous work procedures;
- ◆ Ensure that all workers must be oriented, instructed and trained by the construction project manager to assure safe handling of equipment and disposing waste;
- ◆ Provide one (1) safety officer;
- ◆ Provide one (1) first aid facility with medicinal kits;
- ◆ Provide safety signage's (I.e., signboards, barricades, etc.);
- ◆ Provide facilities for workers with adequate drinking water, sanitary facilities; and
- ◆ Provide all labor and equipment costs necessary to move personnel, equipment, supplies and incidentals to and from the project site.

IV. MOBILIZATION & DEMOBILIZATION

1.00 lot

The Contractor shall provide all labor and equipment costs necessary to move personnel, equipment, supplies and incidentals to and from the Project Site, establish offices, buildings and other facilities

necessary for the Work, obtain bonds, required insurance and any other pre-construction expenses necessary to perform the Work. This section shall exclude the cost of construction materials.

V. SOIL POISONING

22.00 L

- ◆ Soil Condition: The soil should be friable and have low moisture content so that toxicant can be distributed evenly.
- ◆ Application rate: The application rate is usually 4-5 liters per square meter.
- ◆ Application timing: The toxicant should be applied at least 12 hours before placing concrete that will come into contact with the treated soil.
- ◆ The work should be done by pest control company that is registered with the Professional Pest Management Operator (PFPMOA) and Pest Control Association of the Philippines (PCAP).
- ◆ Safety: All workers should be inducted before entering the site, and a toolbox talk should be conducted before the activity.
- ◆ Moisture control: Eliminating sources of excess moisture, such as leaky pipes, clogged gutters, and improper drainage, can help deter termite activity.

VI. EARTHWORKS

3,394.30 cu.m

- ◆ Works are directed to be performed by the Contractor but are not specified in the specification, the Contractor shall carry them out with full diligence and expedience as are expected for works of this nature under the obligations of the Contractor,
- ◆ The Contractor shall allow in his contract price for his compliance with the requirements of this section and for all other things necessary to complete the required earthworks, and
- ◆ The Contractor's compliance with the statutory limits shall not relieve him of his sole responsibility for all consequential damages to adjoining structures, roads and other properties caused by excavation work.

VII. RSB WORKS

37,060.73 kg

- ◆ Unless otherwise shown on plans, reinforcing steel shall be deformed bars, standard size, and in accordance with the metal reinforcement and requirements of standard specifications for concrete, weldable and reinforced concrete; and
- ◆ Contractor shall submit material testing result as required for the following materials:

25mm Diameter Deformed RSB (Grade 60)

20mm Diameter Deformed RSB (Grade 60)

16mm Diameter Deformed RSB (Grade 60)

12mm Diameter Deformed RSB (Grade 60)

10mm Diameter Deformed RSB (Grade 60)

VIII. FORMS AND SCAFFOLDS

105.60 sq.m

- ◆ Form works to be use should be rigid, watertight, braced and tied together to maintain position and shape shape during construction,
- ◆ Able to be removed easily and safety without damaging the formed concrete, or have components that remain as part of the finished structure so the rest can be removed without damaging the structure, and
- ◆ Shall be sound, good quality lumber, free from large loose knots and shall be not less than 1/2" for the boards or even thicker.

Materials to be used are the following:

3/4" Phenolic Board
2" x 2" x 12' Good Lumber

#16 G.A. METAL DECK
Shear Rod

IX. CONCRETE WORKS (CLASS "A" MIXTURE)

477.77 cu.m

◆ Materials

Fine aggregates shall be clean, well graded, hard, natural sand or manufactured sand or a combination of both. The maximum size of the aggregates shall not be larger than one-fifth (1/5) of the narrowest dimension between forms and not larger than three-fourths (3/4) of the minimum clear spacing between reinforcing bars, and in no case larger than two inches in diameter. Coarse aggregates shall be hard, durable, uncoated gravel, crusted gravel, free from any deleterious materials like alkali, loam, silt and any organic matter.

Water used in making the concrete mass shall reasonably clean, potable, and free from injurious amount of oils, acids, alkali organic materials and other deleterious substances.

◆ Mixing Concrete

No hand mixing shall be allowed except in case of emergency such as mixer breakdown during pouring operations and shall stop at the first allowed construction joint. All concrete shall be machine-mixed for at least one and one-half minutes after all materials, including water, are in the mixing drum.

The transit mixer and one-bagger mixer shall be of approved size and type which will ensure a uniform distribution of materials throughout the mass. It shall be equipped with a device for accurately measuring and controlling the amount of water in each batch.

The first batch of concrete materials placed in the mixer shall contain a sufficient excess of cement, sand and water to coat inside of the drum without reducing the cement content of the mix to be discharged.

Class	Psi	MPa
AA	4,000	27.57
A	3,000	20.68
B	2,500	17.23
C	2,000	13.78

- Class AA: For septic Tanks and other work as indicated.
- Class A: For Slabs, beams and wall above grade, columns and for all reinforced work not otherwise indicated and specified.
- Class B: For slabs on grade, and the beams, footings and for such concrete work as indicated or specified (Not indicated in the plan).
- Class C: For all concrete not reinforce except as otherwise indicated and specified (Not indicated in the plan).

◆ Curing

Compressive strength of concrete at 28 days curing period shall attain 3000psi (20.7MPa) with well graded aggregates having a maximum size of 2 inches (50mm).

◆ Specified Compressive Strength.

X. STEEL WORKS

170,026.06 kgs

- ◆ All other materials specifically indicated and illustrated on plans to be installed and improve shall be taken as part of this specification regardless whether or not written and the end user shall approve such other materials before they are set in place.

The materials to be used are the following:

<i>ST W16X100</i>	<i>ST W16X100</i>	<i>Angle Cleats & 10mm dia. Sag Rod</i>
<i>ST W10X60</i>	<i>Electrode</i>	<i>Angle Cleats & 12mm dia. Sag Rod</i>
<i>ST Hssp 5" x 1/4"</i>	<i>Oxygen</i>	<i>12mm Round Bar w/ M12 Turn Buckle</i>
<i>ST Tub 8"x2"x1/4"</i>	<i>Acetylene</i>	
<i>ST Tub 6"x2"x1/4"</i>	<i>Cutting Disc 10"</i>	
<i>2"x8"x1.8mm C-Purlins</i>	<i>Grinding Disc 4"</i>	
<i>MS Plate 12mm Thk</i>	<i>Sand Paper</i>	
<i>3"x3"x1/4" Angle Bar</i>	<i>Non Shrink Grout</i>	
<i>A36 N D20mm Bolt Set</i>	<i>Paint Thinner</i>	
<i>A36N D20mm J-Bolt Set</i>	<i>Red Oxide Paint</i>	

XI. TINSMITHRY WORKS

1,860.00 sq.m

- ◆ The roofing contractor shall supply all labor, tools, staging and equipment necessary and shall perform all finishing work as shown in the schedule of roofing work for this project. The roofing contractor shall store his materials in one place in the building to be kept near and clean to prevent accident.
- ◆ Upon completion of the roofing works, the roofing Contractor shall remove any debris from all finished work. He shall present his work to the in charge of the construction, free from blemishes and rubbish generated by his workers.
- ◆ It shall be the roofing Contractor's responsibility to protect his work and those of other Contractors during the time his work is underway. He shall be responsible for any damage to the work or property of others caused by his employees or by himself.

Materials to be used are the following:

<i>26 G.A. Prepainted Roofing</i>	<i>26 G.A. Prepainted G.I. Gutter</i>
<i>26 G.A. Prepainted Ridge Roll</i>	<i>26 G.A. Prepainted Spandrel With Moulding</i>
<i>26 G.A. Prepainted G.I. Flashing Gutter</i>	

- ◆ All other materials specifically indicated and illustrated on plans shall be taken as part of this specification regardless whether or not written and the end user shall approve such other materials before they are set in place.

XII. CEILING WORKS

294.75 sq.m

- ◆ All other materials specifically indicated and illustrated on plans to be installed and improve shall be taken as part of this specification regardless whether or not written and the end user shall approve such other materials before they are set in place.

The materials to be used are the following:

<i>Wall Angle</i>
<i>0.50mm x 5m Metal Furring</i>
<i>Carrying Channel</i>
<i>4' x 8' x 1/4" THK Fiber Cement Board</i>

XIII. STEEL RAILINGS

1.00 lot

- ◆ Stair Railing use 40mm diameter schedule 304 SS Tubular Pipe Mirror Finish at Top Rail and two coatings Epoxy painted finish to Tubular Steel Baluster, Vertical Bar, Mid-Rail and Flat Bar,
- ◆ Stair Railing for Fire Exit (2mmx2"x4" Tubular, 2mmx2"x2" Tubular, 6mmx 2" Flat Bar, 6mmx1" Flat Bar 16mm diameter Round Bar); and
- ◆ All other materials specifically indicated and illustrated on plans to be installed and improve shall be taken as part of this specification regardless whether or not written and the end user shall approve such other materials before they are set in place.

XIV. MASONRY WORKS

537.80 sq.m

- ◆ For walls and partitions shown in the drawing requiring concrete hollow blocks, use approved machine locally made 6" hollow blocks,
- ◆ Reinforcing bars shall be based on plans. All horizontal reinforcement, 10mm diameter must be tied to the vertical reinforcement 12mm diameter at their intersection. All horizontal reinforcement must be place at every three layers of hollow blocks and tied to the vertical reinforcement at 0.60m on centers at their intersections, and
- ◆ All exposed walls and concrete should be properly plaster with not less than 20mm thick.

XV. POLYURETHANE SANDWICH PANEL

796.00 sq.m

- ◆ Sandwich panels should be of high-quality, light and durable structural elements
- ◆ Sandwich panels should meet the technical parameters of the building project, and should be selected according to their:
 - intended purpose (wall, roof, lock type),
 - thermal insulation properties (Uc),
 - fire resistance parameters (EI, not spreading the fire, roof)
 - mechanical strength,
 - anti-corrosive properties of the facing,
 - other (cladding type, color, module, aesthetics).
- ◆ Wall panels can be installed both vertically and horizontally.
 - specialized electric tools should be used for installation,
 - the diameter and the depth of the preliminary hole in the substrate should meet the requirements of the fasteners manufacturer,
 - each fastener should be installed perpendicularly to the construction,
 - after the fastener is installed, the EPDM gasket from the washer should seal the connection – the fastener must not be screwed in too tight or too loose in order not to damage the washer,
 - the minimum distance of the fastener from the cut edge of the panel should be 30 mm, ▪ use self-drilling Ø4.8 screws with washers with EPDM gaskets to connect the upper facings of roof panels,
 - after installing all fasteners, clean the surface of the panel to remove all metal filings

Materials to be used are the following:

Polyurethane Insulated Panel

2"x6"x3/16" Channel

Welding Electrode/Rod

Flashing

Butyl Sealant

12 x 1" HWH Type 3 with Washer

Weather Sealant

Concrete Fasteners

Backer Rod

#26 G.A. Perforated G.I. Sheet

- ◆ All other materials specifically indicated and illustrated on plans shall be taken as part of this specification regardless whether or not written and the end user shall approve such other materials before they are set in place.

XVI. CURTAIN WALL

93.60 sq.m

- ◆ Curtain wall systems are factory pre-casted systems. They are bought to the site and assembled,
- ◆ Contractor shall used unitized curtain wall systems that involves assembling by means of interlocking units,
- ◆ The whole components shall bought together as a single unit from the factory,
- ◆ The size of the unitized curtain walls are dependent on the floor to floor height of the building,
- ◆ Used double glazing Aluminum Glass Curtain Wall at 6 inches framed with extruded aluminum anchored with aluminum mullions, and
- ◆ All other materials specifically indicated and illustrated on plans shall be taken as part of this specification regardless whether or not written and the end user shall approve such other materials before they are set in place.

XVII. PAINTING WORKS

930.00 sq.m

- ◆ All painting works for this project, except as hereinafter specified, shall be done with the use of paint products,
- ◆ Before any painting is done, all surface shall be cleaned, smoothed and freed from dust, dirt, grease, mortar, rust and other foreign substances. All parts where paint remover has been used shall be washed off with paint or lacquer thinner. All paints shall be spread evenly and carefully,
- ◆ Contractor shall use neutralizer, primer paint and elastomeric paint, and
- ◆ Upon completion of the painting works, the painting Contractor shall remove any paint spots from all finished work. He shall present his work to the in charge of the construction, free from blemishes and rubbish generated by his workers.

XVIII. DOORS and WINDOWS

64.00 sets

- ◆ All other materials specifically indicated and illustrated on plans shall be taken as part of this specification regardless whether or not written and the end user shall approve such other materials before they are set in place. Materials to be used are the following:

<i>Motorized (Roll-Up Door) (6.50m x 5.50m)</i>	<i>2.1mx0.90m Panic Door (Fire Exit Door)</i>
<i>Motorized (Roll-Up Door) (4.2m x 3.00)</i>	<i>3.0mx1.5m Louver Type Window (Powder Coated Aluminum)</i>
<i>2.1mx2.1m Steel Door (Double) W/ Locksets</i>	<i>3.0mx0.5m Louver Type Window (Powder Coated Aluminum)</i>
<i>2.1mx0.90m Single Flush Steel Door W/ Locksets</i>	<i>2.0mx0.5m Louver Type Window (Powder Coated Aluminum)</i>
<i>2.1mx0.80m Single Flush Pvc Door W/ Locksets</i>	<i>1.5mx1.2m Sliding Window With Trim (Powder Coated Aluminum)</i>
<i>2.1mx0.80m Glass Door</i>	<i>1.5mx0.6m Sliding Window With Trim (Powder Coated Aluminum)</i>
<i>2.1mx2.1m Glass Sliding Door W/ Locksets</i>	

XIX. ELECTRICAL WORKS AND FIRE SAFETY EQUIPMENT

1.00 lot

- ◆ All electrical works shall comply in accordance with these plans and specifications. The applicable provisions of the latest edition of the Philippine Electrical Code (PEC), and

- ◆ The rules and regulations of the Local Enforcing Authority and the requirements of the Local Power Company. The electrical works shall be done under the immediate supervision of a duly Registered Electrical Engineer.

50kVA Transformer, Single Phase (Distribution Transformer & Current Transformer) including installation
 Split-Type Inverter Wall Mounted A.C.U 2Hp
 Split-Type Inverter Ceiling Mounted A.C.U 6Hp
 High Bay Light LED 100WATTS IP65/66 (UFO TYPE)
 Nema 3R Panel Box 22 Holes 2 POLE w/ Center Main Plug-In
 225AT Bolt-on Type Circuit Main Breaker
 15A Plug in Type Circuit Breaker
 20A Plug in Type Circuit Breaker
 30A Plug in Type Circuit Breaker
 LED RECESSED Type (Louver)
 6" LED CEILING LIGHT
 4" LED Pinlight 20 WATTS
 LED STRIP LIGHT (MULTI COLOR)
 2"x4" PVC Deep Type Utility Box
 4"x4" PVC Deep Type Junction Box
 One Gang Switch
 Two Gang Switch
 Three Gang Switch

KSB Aircon Outlet
 Heavy Duty Outlet
 Floor Mounted Duplex Universal C.O.
 Universal Duplex Convenience Outlet
 Moldex PVC Connector 20mm
 2.0MM THHN Stranded Wire
 3.5MM THHN Stranded Wire
 5.5MM THHN Stranded Wire
 38 MM THHN Stranded Wire MAIN WIRE
 20MM dia. PVC Pipe with Fittings
 32MM dia. PVC Pipe with Fittings
 Electrical Tape (BIG)
 Solvent Cement
 Fire Detection Alarm System with control panel
 Smoke Detector, Surface Mount, Photoelectric Type
 Automatic Fire Sprinkler System with control panel
 Fire Extinguisher 10lbs
 Fire Extinguisher 20lbs
 Evacuation Route signages
 Automatic Emergency lights

- ◆ **Fire Safety Equipment** includes: fire detection and suppression systems, evacuation routes, and fire extinguisher placement.

- **Fire detection and suppression systems:**

Fire alarms: Audible and visible alarms should be strategically placed throughout the building;

Smoke detectors: Automated smoke detectors should be regularly maintained;

Fire sprinklers: Sprinkler systems should be designed to address the specific hazards of the building; and

Fire extinguishers: Portable fire extinguishers should be installed, tested, and maintained.

- **Evacuation routes:**

Clearly marked and adequately sized escape routes, staircases, and exits; and

Emergency lighting and signage to guide people to safety.

- **Fire Extinguisher placement:**

Fire extinguisher should be installed in accordance with manufacturers' instructions; and

Fire extinguishers should be available to tackle a fire in its early stages.

- **Other fire safety considerations:**

Ensure proper ventilation for smoke and heat dispersal;

Assess the fire safety risks of the building;

Ensure hazardous materials are properly identified and stored and handled;

Educate employees on proper fire safety protocol; and

Provide the fire department with quick and easy access to the building.

All other materials specifically indicated and illustrated on plans shall be taken as part of this specification regardless whether or not written and the end user shall approve such other materials before they are set in place.

XX. RAIN WATER DRAINAGE SYSTEM

1.00 lot

- ◆ All other materials specifically indicated and illustrated on plans shall be taken as part of this specification regardless whether or not written and the end user shall approve such other materials before they are set in place. Materials to be used are the following:

4" DIA PVC PIPE	CHB 4"
4" DIA 87.5 DEG PVC PIPE (6mm BEND)	WASHED SAND
6" DIA PVC PIPE	10mm DIA RSB
6" DIA PVC 87.5deg. Single Branch, SEEP, TEE	2"x2"x3/16" ANGLE BAR
6" DIA PVC Clean-out w/ Plug & Sealing Ring	10mm DIA PLAIN BAR
6" DIA PVC 87.5deg. Single Branch, SEEP, TEE	RED OXIDE PRIMER
SOLVENT	

XXI. PLUMBING WORKS

1.00 lot

- ◆ All other materials specifically indicated and illustrated on plans shall be taken as part of this specification regardless whether or not written and the end user shall approve such other materials before they are set in place. Materials to be used are the following:

<i>Clean Water Plumbing Works w/ Booster Pump 2Hp</i>	<i>Floor Drain (Stainless Steel)</i>
<i>Water Closet (Branded) W/ Lavatory</i>	<i>Septic Vault (Three Chambers)</i>
<i>Urinal</i>	<i>Clean Water Plumbing Works</i>
<i>Bidet</i>	<i>Clean Water Plumbing Works</i>

XXII. ROTARY VENTS & 30KW/KVA ON-GRID SOLAR SYSTEM

1.00 lot

- ◆ Used typically circular in shape rotary vents and consist of multiple blades that rotate around a central axis to adjust the direction and volume of airflow.
- ◆ Installed in roof and can be adjusted manually or automatically to direct air in a particular direction. The blades of rotary vents can be made from a variety of materials, including plastic, aluminum, and steel.
- ◆ For Solar System, Used 30KW/30KVA SOLAR SYSTEM ON-GRID POWER KIT (High-End Solar Storage System) with features:
- ◆ SOLAR PANEL (250W MIN.)
 1. Mono/Poly/Black etc. All type solar pnel High Efciency halfcell/bifical slar modules wth frames
 2. 25 yeas warranty
 3. Conversion Efficiency over 21%
 4. Anti-reflective ad anti-soiling surface power loss from dirt and dust
 5. Exclnt mechanical load resistance
 6. PID Resistant, High salt and ammonia resistance
- ON-GRID PC INVERTER
 1. 5 years standard warranty
 2. Max. Efficiency 99%
 3. Integrated DC switch for added safety protection
 4. Power factor continuously adjustable
 5. Transformer-less design and high power density

6. Flexible communication connection if available
- **PV COMBINER BOX**
 1. Customized PV combiner box for solar panel connection
 2. Anti-Reverse diode/DC Circuit Breaker/DC fuse. Surge protection device included
 3. Lighting Protection
 4. IP65 Waterproof
 5. Application for outdoor PV systems
- **DC ISOLATING SWITCH**
 1. Rated Voltage: 1000VDC to 1200VDC > Rated Current 10A/16A/25A/32A
 2. IP66 Waterproof degree
 3. Minimum Certificate: CE/CB/TUV/IFC/SAA

XXIII. TILING WORKS

167.70 sq.m

- ◆ Following are the specified materials to be used as floor for the different locations/area of the project.
- ◆ All tiles to be used for this project shall be of first class quality. Each piece should be free from chipped off corners, serrated edges or other defects. The tiles must be set in place accurately and firmly with ¾" thick cement mortar for floor and 1/2" thick adhesive.
- ◆ The mortar for laying the wall and floor shall be class "A" (1:2) mix consisting of one part cement and two parts screened sand by volume. Cement grout shall be used between, tiles and other tile accessories. Verify the size of the tiles and tile grout to be used to end-user and the design to be used.

0.60x0.60 SYNTHETIC GRANITE TILES, POLISHED (SHADE AS PER END USER'S APPROVAL)

0.60x0.60 SYNTHETIC GRANITE TILES, UNPOLISHED (SHADE AS PER END USER'S APPROVAL)

0.30x0.60 SYNTHETIC GRANITE TILES, UNPOLISHED (SHADE AS PER END USER'S APPROVAL)

XXIV. MANUAL FORK LIFT (2 METRIC TON CAPACITY) W/ MOBILE LOADING DOCK RAMP (10 METRIC TON CAPACITY)

1.00 lot

- ◆ **Manual Fork Lift (2 Metric Ton Capacity) features:**
 - Soft landing with high-visibility
 - Wide mast
 - Manifest clip
 - Small diameter steering wheel
 - Travel speed/power adjustment/speed limiter
 - Neutral brake switchback regeneration
 - Comfortability BDI interrupt (stop hoisting at over discharging)
 - Travel and load handling interlock
 - Auto power off
 - Economy Display*1 LCD display
 - Battery Full function display (Full-dot LCD)
 - Spare battery
 - Battery carrier
 - Headlights
 - Neutral start
 - Anti-rollback
 - Back buzzer PCS *2 Rear view mirror
 - Turning indicators

- Anti-skid traction control
- Traction control Option
- Up to 4.00 meters, no load reduction

◆ **Mobile Loading Dock Ramp (10 Metric Ton Capacity) features:**

- Special auxiliary equipment for loading and unloading of goods rapidly.
- Suitable for both indoor and outdoor jobs.
- Could be operated by a single person easily, so it economizes on manpower and improves work efficiency.
- Don't need to remove the container from the vehicle, and the forklift can directly enter the container to carry the goods.
- Long service life.
- Easily to be moved to other place with towing device and solid tires.
- Both manual and electric operation power available for your choice.
- Suitable for: forklifts, logistics terminals, factories, containers, trucks loading and unloading.

The above specifications are intended for the **CONSTRUCTION OF ILOCOS SUR RESEARCH CENTER MULTI-CROP WAREHOUSE CUM OFFICE AT DA-ISReC, SAN JUAN, ILOCOS SUR**

Prepared and Submitted by:


EDEN RUTH S. INES, ABE
Technical Staff, EPDSS

Checked and Reviewed by:


MARK HARRY G. PASTOR, ABE
Chief, RAED

DEPARTMENT OF AGRICULTURE-REGIONAL FIELD OFFICE 1

NAME OF PROCURING ENTITY _____

PROJECT REFERENCE NO.: _____

NAME OF PROJECT: _____

**STATEMENT OF ALL ON-GOING 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****CONTRACT TO BE BID:** _____**BUSINESS NAME:** _____**BUSINESS ADDRESS:** _____

Name of Contract/ Location Project Cost	a. Owner's Name b. Address c. Telephone Nos.	NATURE OF WORK	CONTRACTOR'S ROLE		a. Date Awarded b. Date Started c. Date Completion	% Accomplishment		Value of Outstanding Works
			Description	%		Planned	Actual	

Note: This statement shall be supported with:

1. Notice of Award and/or Contract
2. Notice to Proceed issued by the Owner

Submitted by:

Name of Representative of BidderPosition

Date: _____

DEPARTMENT OF AGRICULTURE-REGIONAL FIELD OFFICE 1
NAME OF PROCURING ENTITY

Project Reference No.: _____
 Name of the Project: _____
 Location of the Project: _____

Statement identifying the Bidder's Single Largest Completed Contract (SLCC) similar in nature

Contract to be Bid: _____
 Business Name: _____
 Business Address: _____

Name of Client	a. Owner's Name b. Address c. Telephone Nos.	Title of the Project in the Contract	Nature of Work	a. Date Awarded b. Contract Effectivity c. Date Completed	Contractor's Role (whether sole contractor, subcontractor, or partner in a JV)		a. Total Contract Value at Award b. Total Contract Value at Completion c. Contract Duration
					Description	%	
<u>Government</u>							
<u>Private</u>							

Note: This statement shall be supported with:

1. Notice of Award
2. Notice to Proceed
3. Contract
4. Owner's Certificate of Acceptance OR Constructors Performance Evaluation Summary (CPES) Rating

Submitted by : _____
 (Printed Name and Signature)
 Designation : _____
 Date : _____

Bid Securing Declaration Form

[shall be submitted with the Bid if bidder opts to provide this form of bid security]

REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

BID SECURING DECLARATION Project Identification No.: *[Insert number]*

To: **DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE 1
City of San Fernando, La Union**

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
 - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of *[month]* *[year]* at *[place of execution]*.

*[Insert NAME OF BIDDER OR ITS AUTHORIZED
REPRESENTATIVE*

[Insert signatory's legal capacity]

Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

DEPARTMENT OF AGRICULTURE-REGIONAL FIELD OFFICE 1

NAME OF PROCURING ENTITY

Standard Form Number: SF-INFR-48

Revised on: August 11, 2004

Contract Reference No.: _____

Name of the Contract: _____

Location of the Contract: _____

(LIST) Qualification of Key Personnel Proposed to be Assigned to the Contract

Business Name: _____

Business Address: _____

		Project Manager/Engineer	Materials Engineer	Foreman	Construction Safety and Health Personnel	Other positions deemed required by the Applicant for the project
1	Name					
2	Address					
3	Date of Birth					
4	Employed since					
5	Experience					
6	Previous Employment					
7	Education					
8	PRC Licence					

Minimum Requirements : Project Manager/Engineer
: Materials Engineer
: Foreman
: Foreman

Note : Attached individual resume and PRC License of the (professional) personnel

Submitted by : _____
(Printed Name and Signature)

Designation : _____

Date : _____

One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (viz, Project Manager, Project Engineers, Materials Engineers and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel signed written commitment to work for the project once awarded the contract).

DEPARTMENT OF AGRICULTURE-REGIONAL FIELD OFFICE 1
NAME OF PROCURING ENTITY

Contract Reference Number
Name of the Contract
Location of the Contract

1. Name : _____
2. Name and Address of Owner : _____
3. Name and Address of the
Owner's Engineer
(Consultant) : _____
- 3-4. Indicate the Features of Project
(particulars of the project
Components and any other particular
Interest connected with the project): _____
5. Contract Amount Expressed in
Philippine currency : _____
6. Position : _____
7. Structures for which the employee
was responsible : _____
8. Assignment Period : from _____ (months)
: to _____ (months)

Name and Signature of Employee

It is hereby certified that the above personnel can be assigned to this project, if the contract is awarded to our company.

(Place and Date)

(The Authorized Representative)

One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (viz, Project Manager, Project Engineers, Materials Engineers and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel signed written commitment to work for the project once awarded the contract). _____ **SF-INFR-47b**

DEPARTMENT OF AGRICULTURE-REGIONAL FIELD OFFICE 1
NAME OF PROCURING ENTITY

Contract Reference Number
Name of the Contract
Location of the Contract

Standard Form Number: SF-INFR-47
Revised on: August 11, 2004

KEY PERSONNEL
(FORMAT OF BIO-DATA)

Give the detailed information of the following personnel who are to be assigned as full-time field staff for the project. Fill up a form for each person.

- Authorized Managing Officer/Representative
- Sustained Technical Employee

1. Name : _____
2. Date of Birth : _____
3. Nationality : _____
4. Education and Degrees : _____
5. Specialty : _____
6. Registration : _____
7. Length of service with the Firm : _____
8. Years of Experience : _____

9. If item 7 is less than ten (10) years, give name and length of service with previous employers for a ten (10)-year period (attach additional sheet/s), if necessary:

<u>Name and Address of employer</u>	<u>Length of Service</u>
_____	_____ year(s) from _____ to _____
_____	_____ year(s) from _____ to _____
_____	_____ year(s) from _____ to _____

10. Experience:

This should cover the past ten (10) years of experience. (Attach as many pages as necessary to show involvement of personnel in projects using the format below).

One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (viz, Project Manager, Project Engineers, Materials Engineers and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel signed written commitment to work for the project once awarded the contract). SF-INFR-47a

DEPARTMENT OF AGRICULTURE-REGIONAL FIELD OFFICE 1
NAME OF PROCURING ENTITY

Contract Reference Number
Name of the Contract
Location of the Contract

Standard Form Number: SF-INFR-46
Revised on: August 11, 2004

Key Personnel's Certificate of Employment

Issuance Date

DIR. NESTOR

Position of the Head of the Procuring Entity

DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE 1

CITY OF SAN FERNANDO, LA UNION

Dear Sir/Madame:

I am (Name of Nominee) a Licensed _____ Engineer with Professional License No. _____ issued on (Date of Issuance) at (place of issuance).

I hereby certify that (Name of Bidder) has engaged my services as (designation) for (name of the Contract), if awarded to it.

As (designation), I supervised the following completed projects similar to the contract under bidding:

NAME OF PROJECT	OWNER	COST	DATE COMPLETED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

At present, I am supervising the following projects:

NAME OF PROJECT	OWNER	COST	DATE COMPLETED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

In case of my separation for any reason whatsoever from the above-mentioned contractor, I shall notify the (Name of the Procuring Entity) at least twenty one (21) days before the effective date of my separation.

As (Designation), I know I will have to stay in the job site all the time to supervise and manage the Contract works to the best of my ability, and aware that I am authorized to handle only one (1) contract at a time.

I do not allow the use of my name for the purpose of enabling the above-mentioned Contractor to qualify for the Contract without any firm commitment on my part to assume the post of (Designation) thereof, if the contract is awarded to him since I understand that to do so will be

a sufficient ground for my disqualification as (Designation) in any future ____ (*Name of the Procuring Entity*) bidding or employment with any Contractor doing business with the *Name of the Procuring Entity*_____.

(Signature of Engineer)

DRY SEAL

Republic of the Philippines)
_____) S.S.

SUBSCRIBED AND SWORN TO before me this _____ day of _____ 2022 affiant exhibiting to me his/her Residence Certificate No. _____ issued on _____ at _____.

Notary Public
Until December 31, 20____

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

*One of the requirements from the bidder to be included in its Technical Envelope is a list of contractor's key personnel (viz, Project Manager, Project Engineers, Materials Engineers and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data (including the key personnel signed written commitment to work for the project once awarded the contract).*_____ SF-INFR-46a

Standard Form Number: SF-INFR-49

Revised on August 11, 2004

LIST OF EQUIPMENT, OWNED OF LEASED and/or under PURCHASE AGREEMENT, PLEDGED TO THE PROPOSED PROJECT

Business Name : _____

Business Address : _____

Description	Model/Year	Capacity/ Performance/ Size	Plate No.	Motor No./ Body No.	Location	Condition	Proof of Ownership/ Lessor or Vendor

List of minimum equipment required for the project

Submitted by : _____

(Print name and affix signature)

Designation : _____

Date : _____

Omnibus Sworn Statement (Revised)

[shall be submitted with the Bid]

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. *[Select one, delete the other:]*

[If a sole proprietorship:] I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

[If a partnership, corporation, cooperative, or joint venture:] I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. *[Select one, delete the other:]*

[If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. *[Select one, delete the rest:]*

[If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the

Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a partnership or cooperative] None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and
8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
 - a. Carefully examining all of the Bidding Documents;
 - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
 - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.
9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. **In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.**

IN WITNESS WHEREOF, I have hereunto set my hand this ___ day of ___, 20__ at _____, Philippines.

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

COMPUTATION OF NET FINANCIAL CONTRACTING CAPACITY (NFCC)

Summary of the Applicant Supplier's/Distributor's assets and liabilities on the basis of the attached Income Tax Return and Audited Financial Statement, stamped "RECEIVED" by the Bureau of Internal Revenue or BIR authorized collecting agent for the immediately preceding year.

		Year 20__
1	Total Assets	
2	Current Assets	
3	Total Liabilities	
4	Current Liabilities	
5	Net Worth (1-3)	
6	Net Working Capital (2-4)	

The Net Financial Contracting Capacity (NFCC), which must be at least equal to the ABC to be bid, based on the above data is calculated as follows:

NFCC = [(Current asset minus current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started

Or,

If the prospective bidder opts to submit a Committed Line of Credit (CLC), it must be at least equal to ten percent (10%) of the ABC to be bid and shall be confirmed or authenticated by a local universal or commercial bank.

Name of Bank _____ Amount _____

Herewith attached are certified true copies of the Income Tax Return and Audited Financial Statement Stamped "RECEIVED" by the BIR authorized collecting agent for the immediately preceding year.

Submitted by:

Name of Supplier/Distributor/Manufacturer

Printed Name and Signature of Authorized Representative

Date:

Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

BID FORM

Date: _____
Project Identification No.: _____

To: **DEPARTMENT OF AGRICULTURE REGIONAL FIELD OFFICE 1**
City of San Fernando, La Union

Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers [insert numbers], the receipt of which is hereby duly acknowledged, we, the undersigned, declare that:

- a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: *[insert name of contract]*;
- b. We offer to execute the Works for this Contract in accordance with the PBDs;
- c. The total price of our Bid in words and figures, excluding any discounts offered below is: *[insert information]*;
- d. The discounts offered and the methodology for their application are: *[insert information]*;
- e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties]*, which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines¹² for this purpose;
- h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

- k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the *[Name of Project]* of the *[Name of the Procuring Entity]*.
- l. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name: _____

Legal capacity: _____

Signature: _____

Duly authorized to sign the Bid for and behalf of: _____

Date: _____